ORGANIZATIONAL EFFECTIVENESS:

A Study of the Concept with Empirical Reference

to a General Nurse Training System

by

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ABSTRACT

The concept of organizational effectiveness is of vital importance to accountants because it forms the ultimate criterion for the design of accounting information systems for control. It also has close conceptual links with the concept of corporate accountability. Depending on how an accountant defines effective organizational behaviour he/she will seek to design management information systems that implement and achieve this perspective. Depending on how and in whose interests a corporation is seen to be working towards accountants will design appropriate corporate reports.

This thesis examines the concept in detail and argues that theories of effectiveness have generally been developed on what Habermas calls a technical level of interest. Little research attention has been paid to developing concepts of effectiveness on the hermeneutical and critical levels of interest.

Critique, however, is felt to be vital for the moral and intellectual development of social theory and social science, of which accounting is constitutive. Indeed, Habermas argues that the function of theoretical and practical discourse is to help lead to an ideal situation of rational consensus and of free speech which is unconstrained by sources of domination.

Based on this epistemological stance, the thesis develops a technically-interested theory of O.E. This and the research insights it produces are evaluated and an integrated, critical theory of O.E. is proposed. This is then used to generate additional information from the same empirical base; a process which shows the inadequacy of developing only technical theories of effectiveness.

Finally, the implications of such an integrated theory of O.E. for accounting are examined and new research directions are suggested.

The structure of the thesis itself has attempted to be an analogue of critique; beginning with a technical theory of O.E., evaluating this and proposing an enriched, integrated alternative. It has also attempted to be a thesis in the social science, emphasizing the holism of social knowledge.

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I could write a book of thanks. This thesis is less miné than the product of my family, friends and colleagues.

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Lastly, my deepest gratitude belongs to my family. To Mother I owe the determination and the opportunity to study and to learn. To Eddie I owe much more than can be expressed. Although his name has not been quoted once in my work, this thesis is essentially based on and built round his ideas and thoughts. I have been but a poor spokeswoman for his incredible breadth of interest and his deep concern for a just and equal society. My work is a pale reflection of his desire for unconstrained and jargon-free communication. I shall always treasure his insightful critique and suggestions for change.

My father died before he received this birthday present. My debt to him and my grief is of the kind that cannot even begin to be stated here. It is but only fitting that this thesis is dedicated to his beloved memory.

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Abbreviations Used for Habermas's Work

K.H. I.   =   Knowledge and Human Interests.

L.C.   =   Legitimation Crisis.

T.P.   =   Theory and Practice.

Chapter 1: Accounting, Accountability and the Concept
of Organisational Effectiveness (O.E.)

The object of this thesis is to argue that an integrated, emancipatory

theory of organizational effectiveness (O.E.) is required in order to

understand and evaluate man's actions. Effectiveness does not appear to

be a central concept for accountants but we argue that it is the raison

d'etre for the design of accounting systems. Accounting and the concept

of accountability are well-nigh inseparable. Since the publication of

Paciolo's Summa which contained the first slender tract on book-keeping

"de Computis et Scripturis" in 1494, accountants have been concerned with

the reporting and assessment of accountability for wealth. Indeed, "accounting"

records date from much earlier times and it has been argued that ancient

Greek and Roman records show the existence of an "accounting" officer whose

task it was to keep an accurate record of acquisitions and outgoings, in

money and kind, in order to expose any losses due to dishonesty or

negligence and to hold accountable persons who committed these acts. Emerging

from these early days of identifying individual accountability, accounting

information has been expanded to assess and manage collectivities, whether

they be a feudal estate or a joint stock venture. Today in the 1980's

accounting information has vastly increased in significance and is used not only

to assess the actions of both private and public enterprises but also entire

nations. External financial reports provide some measure of organisational

assessment and is used by a wide variety of users. The bottomline, profit

figure and measures of profitability are often included in indices of O.E.

(Steers, 1977). Internal, so-called management accounting information, with

its armoury of budget and variance analysis is similarly used to assess the

performance of individual departments and even individual managers.

But what does "accountability" mean when one refers to institutional

accountability? Official text-book answers substitute this notion with

ill-defined ideas of "efficiency and effectiveness". Accountants, so we

are told, are concerned with the assessment and achievement of a "rational",

"optimal", "effective" allocation of resources, but nowhere in the accounting

literature are these terms rigorously defined. Some questions remain

unanswered and at times unasked.

What is an effective organisation?

What does accounting for organisational performance entail? What

organisational characteristics ought to be measured by the accounting

system?

How should an accounting information system be designed in order to

ensure O.E.?

The organization theory literature has tended to adopt profit or

profitability measures without much investigation of the basis on which profit

figures are built up and the accounting literature has generally assumed

that financial measures must give us valuable information about a firm's

effectiveness. This assumption of accountants is based on seemingly common-

sense equations: profit/profitability = financial success = survival imperative

for the organization = medium of need satisfaction for organization participants,

and indirectly society. Without monetary gain (cash surpluses), profitability

and the maintenance of a physical and monetary stock of capital, so the

accountant points out, a firm operating in a competitive market would not

survive. It would go bankrupt. Indeed, such assumptions have helped fuel

research into financial leading indicators of corporate collapse; ratio

analysis became fashionable in the 1960's and accountants spoke of the

predictive ability of accounting numbers as a criterion of an effective

accounting system (see Beaver et al, 1968). Accountants were allowed and enabled

to continue for a while to equate accountability and effectiveness to

profitability and other related financial measures. Their lack of detailed

theoretical analysis on the concept of effective institutional functioning

was glossed over. Moreover, their financial measures of effectiveness

meshed in well with a dominant ideology of capitalist relations which was

consonant with individualist, marginalist theories of income, value and

the need for capital maintenance. However, complex social forces which

as yet are not well-understood* forced the accountants to grope for new

measures of effectiveness in the 1970's. There were increasing criticisms

that accountants failed to account for the "human resources" in organizations

i.e. to value its most important and valuable asset - its people. In

addition, accountants did not "encourage" or "force" organizations to be

"socially responsible" and to account for their benefits and disbenefits

to society. Economists began to point out the externalities created by

organizations which were borne by the state and the community at large.

Accounting academics pointed out the inadequacies of a stokeholder theory of

the firm and proposed a more comprehensive stakeholder theory of the

organization (see Lowe and McInnes, 1971). In short, it was felt that

profitability was no longer an adequate measure of effectiveness and

organizations had to be answerable for more e.g. their treatment of "human

resources", their effects on the environment and on society at large.

Research effort began to be expended on ways of accounting for human resources

and of drawing up socially responsible balance sheets of the benefits and

disbenefits to society. Human resource and social responsibility accounting

became distinct sub-knowledge areas within accounting and emerged in textbooks

on accounting (see Briston, 1981; Glautier and Underdown, 1976). But such

responses were essentially ad-hoc, superficial, fragmentary reactions to a

critical media, state agencies and the academy. Few attempts were made to

re-examine the notion of effectiveness per se and to relate this to prevailing

accounting measures of effectiveness. Indeed, from the standpoint of the

1980's, those sub-cultures of accounting appear almost as a fad which emerged

only at a particular historical period and have since faded away in the wake

of changed political, economical and social conditions. Neither human

resources nor socially responsible accounts are produced on a significant

* An attempt is made to analyse these relations in chapter 13 of this thesis.

scale on a voluntary basis by organizations and nor are they made mandatory

by the decision-makers of the professional institutes. Profitability

measures continue to be the main objects measured and reported by accountants

and few people have bothered to analyse why this is so.

Further, accountants have assumed that accounting information systems

do help to promote financial success; that if information systems were well-

designed and control systems more efficient the organization would find

itself on the road to financial wealth. However, as Burchell et al (1980)

pointed out, organizational research is beginning to question even this

automatic presumption of a positive and causal relationship between accounting

systems and financial success. Whilst accounting systems are most certainly

important in the design and functioning of organizations as we know them,

there is some emergent research which questions the link between strict

controls and financial success. Firms seem to be successful even when there

are only informal planning and assessment practices (Child, 1974) and multiple

and overlapping flows of information (Grinyer and Norburn, 1975).

> "Indeed, it might be the 'newly poor' (Olofsson and Svalander, 1975)
> or the externally threatened (Khandwalla, 1978; Meyer and Rowan, 1978)
> that invest heavily in additional mechanisms for internal visibility
> and control as they attempt both to allocate their ever more scarce
> resources or to negotiate a new legitimacy with external agents."
> (p. 13, Burchell et al, 1980).

So accounting information systems may not be as necessary as we thought to

financial success.

The following equivalence of relations thus appears to be crumbling:

accounting control systems → financial success → organizational effectiveness.

Research suggests that accounting information may not contribute as much

to financial success as widely believed and such success may not be the

only element in the effectiveness set. Despite these emergent questions,

the accounting profession continues to persist in traditional forms of

accounting. One could suggest that such persistence is not merely an expected

inertia in a conservative profession but is the result of the domination

of powerful, capitalistic interests which would be threatened by a fundamental

examination of the meaning of O.E. and the manner to account for it. A
hegemony between corporate capitalists and a stability-seeking state
apparatus could be proposed as the main reason for the existence of certain
kinds of accounting despite increased scepticism of the role of accounting
in organization and society. Cooper (1980), for example, suggests that
"neo-classical" accounting continues to be rigorous because current accounting
is overwhelmed by the assumptions of capitalism and takes for granted the
existence of markets, private property, private costs and private profit.
That such a domination relation exists and prevents more radical theories of
accounting for O.E. could be part of an answer but it appears not to be the
complete answer. For there exists   special theoretical and methodological
problems when we discuss the concept of O.E. which are intrinsically bound
up with the notion of organizational goals.

One of the main difficulties is the epistemological and methodological
status of the notion of organizational goals. Does or can a collectivity
like an organization have a goal except when unanimous consensus exists
among participants as to the purpose of their interaction? Or do only
individuals have goals? Are organizations rational, goal-seeking organizations
or are they characterized better as confused, semi-anarchic coalitions which
rationalize retrospectively their action by creating rationales? Are they
better described as negotiated orders rather than as orderly systems? Do
they have problems which require accounting solutions or does the accountant,
armed with his solutions, create problems which legitimate his social
function? Do organizations and their goals exist in any meaningful sense or
do the contradictions observed indicate that they are fictitious concepts
which live only in the minds of the academic isolated in his ivory tower?
These questions illustrate the kind of problems accountants face when they
seek to analyse the concept of O.E. and look to the notion of organizational
goals as providing the norm/standard against which performance can be measured.
The goal controversy lies at the heart of the O.E. debate.

As Otley (1980) pointed out the question of organizational objectives and the notion of O.E. require urgent clarification if a contingency theory of management accounting is to be forged.

> "Objectives are an essential part of a contingency framework not only because they are themselves one contingent variable that is likely to affect the nature of an accounting system but also, and more importantly, because they form the criterion against which the effects of different configurations of controls must be evaluated." (p. 423-424, Otley, 1980)

In order that accountants be able to progress beyond the mere association of particular contingencies and accounting systems, a judgement has to be made about the impact of the accounting system in aiding organizational goal achievement. Similarly, in the field of external reporting, there is a need to know what the criterion of organizational evaluation is and ought to be in order that "relevant" and "desirable" characteristics are reported. However, accountants have made little effort to look in depth at the concept of organizational goals and its relationship to the design of accounting systems.

Not only have accountants been unable to deal satisfactorily with the concept of organizational assessment, social scientists in a variety of other disciplines have similarly failed to find an adequate answer. The bulk of work on O.E. stems from the loosely defined area of organization theory. As recent reviews have shown (Steers, 1975, 1977; Goodman and Pennings, 1977; Spray, 1976) the concept has so far defied measurement. Definitions of O.E. proliferate and when measured, each bears little empirical correlation with another. Worse, measures of effectiveness used in the same study do not inter-correlate well to form a cohesive set, and consequently studies of the causal determinants of O.E. are inconclusive.

Welfare economists in the normative public choice area have also wrestled, somewhat independently of organization theorists, with the concept of O.E. but at a lower resolution level of analysis. They are concerned with what the goals of a society should be, how to achieve them and how to assess this degree of achievement. From the seminal work of Bergson

(1938), Samuelson (1947), Arrow (1951) through to Rawls (1971), Harsanyi (1977) and Buchanan and Tullock (1962), welfare economists have sought ways of avoiding Arrow's Impossibility Theorem by relaxing one or more of his axioms, but reluctantly have come to the conclusion that in order to define a single, socially preferred alternative on the Pareto frontier it is necessary to define cardinal, interpersonally comparable individual utility indices or their equivalent. This conclusion has so dismayed economists that since then apart from Ng's (1975) work relatively little effort has been made to measure these cardinal utilities and discuss what form the welfare function could take. An important point to be noted here is that accountants and organization theorists have consistently failed to see the connection between O.E. and the ethical issues so explicitly studied in economics. It is felt that this has seriously crippled the usefulness of much of the research done on defining O.E.

Given these difficulties, some academics - organization theorists like (Connolly et al, 1980) and accountants like Hopwood, 1979 and Otley, 1980) - have argued that the concept of O.E. per se does not exist apart from speaking of "effective for whom" and "to what purpose?". That is, O.E. is necessarily equated with the interests of a particular interest group. (Interestingly enough, welfare economists have not come to the similar conclusions). Ontologically, these positions amount to the proposition that a collectivity, in some essential way, is not definable. That is, one cannot speak of a collective organizational goal but only of individual and group goals (Cyert and March, 1963). Increasingly, accounting academics feel that accounting information systems do not play the "official" role of ensuring effective, rational, organizational decision making. Instead, because what is accounted for can shape the allocation of wealth with ramifying effects on the level of individual and collective welfare and can shape the definition of organizational and social reality, accounting systems influence the creation and aid the persistence of certain patterns of organizational and

societal power. Accounting information, therefore, serves the interests of particular power groups within organizations and societies. (See Rose, 1977; Becker and Neuhauser, 1975; Meyer and Rowan, 1978; Gambling, 1977; Wildavsky, 1976).

The implicit call from much of this research is to abandon the search for a normative criterion such as O.E. by which the usefulness of accounting information systems may be evaluated. Instead, as Hopwood (1979) points out, criteria of corporate effectiveness are social constructs, and their roles and meanings stem from the social interests and concerns of particular social contexts. Consequently, more research should be carried out in increasing our understanding of the processes by which certain definitions of effectiveness are legitimated within organizations and the effects which these different definitions have on organizational and societal life. For example, accountants should no longer view financial criteria of effectiveness as non-problematic in both concept and operationalization. A profit is not just a profit. Instead of asking how we can measure profits more accurately accountants should seek to question why "profits" is an important notion, how it has attained its position of importance and the effect which this dominant definition of O.E. has on the action and life of an organization.

Such analyses of the concept of O.E. and the role of accounting measures of effectiveness in organizations and societies are welcome for they make us re-examine our assumptions about the functioning of accounting systems. In Habermas's language, they represent efforts to move knowledge from a technical base to a hermeneutic level where more emphasis is placed on deciphering the meaning of everyday notions and the processes by which social realities are created in micro- and macro- collectivities. Such research enables us to analyse in-depth legitimation and political processes of reality-construction and highlights that criteria of O.E. or theories of accounting value are not scientific, neutral facts but are political compromises. But to stop at this level of analysis is inadequate for such

"descriptive", process-oriented research strategies offer few signposts for change and in the hands of less subtle researchers could easily degenerate into a conservative ideology for maintaining the status quo. The process of description is not a value-free methodological choice but ethical choices guide what we describe, how we describe and what we see as relating elements in a system of relations. As will be discussed later, the accountants' seemingly neutral, scientific theory of value and measurement is inherently coupled with a machine-image of man and a capitalist set of relations. By merely describing how criteria of effectiveness, of profitability, come to be powerful, the theorist may not uncover such assumptions. Or his process of description may, in fact, be guided by implicit normative assumptions which are a theoretical contradiction to the "objective observer" surveying human behaviour and faithfully recording the scene he surveys.

And even if the describer is able to highlight particular legitimation and political processes and hidden ethical assumptions, even if such forms of knowledge somehow manage to emerge in the absence of a particular norm of critique and of a "better society", what then? After we have described A has more power over B and therefore A is able to advance his theory of effectiveness, so what? What role then remains for the describer - to retire from this arena of description and move on to another descriptive sphere? Is enlightenment equal to emancipation? It could be that the describer assumes that once having made A and B aware of their differential power that B will automatically move to change the relation of power. But is resistance so immediate, feasible and efficient; is the power to resist as widely distributed as the power to dominate and to impose normative structures?

In the absence of critique and of an explicit normative criterion, recent changes in accounting and organizational theory could identify operative goals and relations and imply that such notions should continue in the future. Tinker et al (1982), speaking in particular about marginalist theories of value,

similarly argue that although a political focus has shifted accounting away from technical notions, this shift has not resulted in fundamental modifications of the marginalist theories of value. While the market of competing interest groups has replaced the idea of neutral accountants, and the utilitarian calculus has been extended to incorporate transaction costs, a series of marginalist and ideological assumptions remain unquestioned. And this opens the way for the asocial, ahistorical theory of Watts and Zimmerman (1979) and the non-intentional, non-hegemonic ideas of Burchell et al (1982). Behaviour is now cynically accepted as being guided by self-interest and economic rationality. Or it emerges from a mysterious, anonymous process of filtration and osmosis which lacks a sense of intention and objective-seeking action.

We argue that such changes are inadequate. An explicit prescriptive notion of "better" organizations is required to anchor our theory of O.E. for without such explicitness we are either fooling ourselves as to the descriptive nature of research or incapacitating the power of knowledge to herald change. As Habermas argues, it is a critical level of interest in human discourse which allows the emergence of emancipatory ideas which link an ideal speech condition to that of a "good and just" society. Theories of O.E. and accounting have to date proceeded from either the assumption that accounting and accountability have little to do with moral, social choice or the assumption that an organization's financial success equals benefit to society. Neither of these assumptions is a scientific pre-given. In evaluating and accounting for organizational behaviour, accountants cannot ignore the relation of the micro-organization to society; for not only is the organization a part of society and is a microcosm of it, it also cannot be understood prior to a critique of the macro-processes and structures in which organizations exist. To evaluate an institution, to call it to account is also to call society to account. To criticise an institution is also to criticise the society which is constituted by and constitutes

micro-institutions. Not only do we need a theory of what a "better"

organization means and how to measure such degrees of goodness, this theory

needs to recognize the part-whole relation between organizations and society.

The technical theories of O.E. have begun to show their inadequacies and it

is insufficient for a holistic understanding of human behaviour to attempt

to describe political processes of legitimation. Description is intrinsically

bound up with prescription, a suggestion for change, and a critical notion

of what ought to be. We propose that such an explicit prescriptive

criterion should recognize the organization - societal coupling in an

emancipatory theory of O.E. We set out detailed arguments in subsequent

chapters to support these initial, polemical assertions.

1.1 Purpose of Thesis

The initial aim of this thesis was to study equally the concept of O.E.

and its relationship to the design of accounting systems. However, the

first task has proved long in itself and it now forms the bulk of this

thesis. Detailed progress on the second issue is now being taken up by

Richard Laughlin and is contained in a second thesis. Nevertheless, a

succinct indication of the major implications of the present study of O.E.

and its relationship to the study of accounting will be given at the end

of this thesis.

In order to analyse and explain the purpose of this thesis, it too

must be placed within its historical and social context. The author comes

from an accounting background developed within the specific context of

Sheffield University during the late 1970's. Due to the dominance of the

natural science matrix for social research, this research began with a

contingency model of O.E. similar in essence with early work by Mott (1977)

and Steers (1977). However, whilst collecting field data, the importance of

a hermeneutical understanding of the empirical situation became apparent

and so did the possibilities of extending the theory of O.E. Theory and

empirical observations were both then developed and interpreted from three

quite different matrices - a conventional functionalist mode, a

hermeneutical mode and a critical, integrated perspective. This dialetical

form of investigation enriched both the initial theory of O.E. and the

interpretation of the empirical context. This emergent learning process is

now understood as representing different constructions of reality that need

to be integrated and underpinned by an epistemological belief that the

purpose of all knowledge is to lead to self-reflection and emancipation of

man, both individual and collective, i.e. to the ideal state of affairs

in which non-alienating work and free interaction can be manifested. The

process of integration in this thesis is sequential in the sense that we began

with a technical theory of O.E. which was subsequently found to be inadequate and

which was then enriched with interpretive knowledge. Attempts were then made

to unite both nomological and interpretive knowledge in order to critically

evaluate the effectiveness of the system under analysis.

The major purposes of this piece of research are thus:

(a) to analyse and define the notion of organizational effectiveness;

   (It will be argued that, contrary to Hopwood's (1979) proposition,
   it is insufficient to merely study the process of O.E. definition. An
   integrated criterion of O.E. that is tightly coupled with societal
   concerns is required and an emancipatory theory of O.E. is offered.)

(b) to indicate the implications of such a theory of O.E. for the
   development of accounting systems design; and

(c) to accomplish (a) and (b) with a research methodology that is
   an analogue of critique and which shows clearly the limitations of
   working consistently within one matrix.

The process of integration used in this thesis proceeds at two

related levels. Firstly, a theory of O.E. is   developed at the

technical and hermeneutical levels of interest but this is shown to be

an inadequate explanation of social behaviour. These forms of analysis

are shown to be insufficient explanations in themselves. This opens the

way for an integrated theory of O.E. which seeks to interweave technical

and hermeneutical knowledge with critique. Integration thus consists of

(a)   showing clearly the inadequacy of remaining at the technical and

      hermeneutical levels of analysis; and

(b)   attempting to unite technical, hermeneutical and critical insights in

      an integrated theory of O.E.   Such integration is based on Habermas's

      notion of discourse which shows that perfect discourse is concomitant

      with an ideal social world.

In order to achieve the above objectives, the thesis is organised in

the following way. Chapter 2 reviews in depth the major O.E. research

completed on both sides of the Atlantic. Chapters 3 to 5 argue that

conceptualizations of O.E. to date are deficient in a number of ways and

outline the epistemological principles which also form the organization

principle of this thesis. They explain in detail the typologies of

Laughlin et al (1981), Burrell and Morgan (1979) and, most importantly,

that of Habermas (1972). Chapters 6 and 7 describe the entree into the

research site and argue the justification for our chosen research methods.

Chapter 8 sets out the technical and hermeneutical model of O.E. that was

created from a concern with technical and hermeneutical rationality.

Chapter 9 describes the detailed derivation of empirical measures and

chapter 10 discusses the validity of the empirical data in relation to the

model in chapter 8. Chapter 11 examines the limitations of stopping at a

technical level of interest. It then extends the theory of O.E. developed

in chapter 8 and proposes an emancipatory theory of O.E. Chapter 11 also

outlines the method of measurement of emancipatory O.E. and an assessment

is made of the research organization. Chapter 12 ends with an important

note of the implications which an emancipatory theory of O.E. has for the

designers of accounting information systems. Finally, chapter 13 provides a

short "conclusion" to the thesis and points out the research opportunities

for the future.

The sample questionnaires, and graphs are found in the Appendices.

Chapter 2: A Dominant Subject Matrix and Dominant

Theories of Accountability

2.0   Introduction

The introduction in the first chapter has argued that there is

a need for accountants and social scientists in general to study in

depth the concept of O.E. and organisational assessment; because

what we account for creates our social reality and the social

world in turn shapes our definition of what ought to be accounted.

Research on O.E. have not proved insightful. This is because a

functionalist methodology coupled with a technical interest has

mobilized bias (Bachrach and . Baratz,1962) and has severely limited

the parameters of debate.

This chapter, therefore, starts a new debate in the field of

O.E. by reviewing and classifying work to date.

In order that we might begin to acquire new perspectives into

the concept of organizations and their effectiveness, it is

necessary to review how past and present research have tried to

tackle the problems. As Newton is often reported to have said, one

can see further if one stands on the shoulders of those who have

already tried. A historical critique thus helps us to know the

current state of the art and how we got to where we are, what is

unsatisfactory about the status quo and where we might and should go

in the future. It also leads to a definition of the research problem -

in terms of the scope and approach. Finally, the review partially

justifies the choice of this particular research problem as it shows

clearly, the importance and ubiquity of concepts of organizational

effectiveness and the necessity for further research. It also shows

that all the research to date (apart from two exceptions) reside

squarely in the functionalist matrix and are comfortably within

the parameters of mainstream empirical theory.

2.1   Criteria for Selection of Research for Review

Research in this area tends to be fragmentary and non-

cumulative. Also, as will be shown, the concept of effective

organizations underlies implicitly a vast amount of organizational

research and one could reasonably argue that the entire literature

in organization theory, parts of accounting, cybernetics, general

systems theory, economics and sociology are all concerned with

developing efficient and effective organisations. Hence, a review

of the literature must necessarily be highly selective and the

following one will reflect both the author's awareness of current

research and her criteria of choice of literature that is deemed

more relevent. The review presented here will build on the work of

previous reviews (see Price, 1968; Campbell et al., 1974; Steers,

1977; Goodman and Pennings, 1977; Hopwood, 1979).

The main criteria for inclusion of research within this review

was that the researchers showed an explicit concern for the notion

of O.E. Implicit references to effective organizations were

excluded from the review for then we would have reviewed an enormous

part of social science literature. It is for this reason that we

have excluded detailed discussion of, for example, Amey's (1969)

study of business efficiency and Solomon's (1965) discussion of

divisional performance measurement. Clearly there are underlying

notions of effectiveness in both these pieces of work and it is

interesting to note that Amey restricts himself to a discussion of

efficiency and not effectiveness. It could also be argued that

Solomon's concept of the division is but another name for an

organization and should be included. However, the specific problems of divisional performance tends to raise technical problems of a specific kind and these concerns, though important are less central to our present concerns. To get into these arguments would have distracted somewhat from the main task of developing a theory of O.E. Thus, it was decided to exclude from debate such kinds of work, which tended to have specific technical interests.

The review unavoidably draws mainly on work within organization theory and welfare economics for it is here that the term appears to have generated more explicit research. However, accounting studies of O.E. are naturally included and the work of Tinker (1975) and Hayes (1977) will be discussed though the latter is actually a study of the determinants of departmental effectiveness. Discussion will also be made of the rather reactionary, thoughtless growth of "social responsibility" and "human resource accounting". Such bodies of literature begin to supplement but does not question fundamentally traditional modes of corporate assessment. Indeed, there is little discussion even within this area on the notions of accountability and O.E. per se. The literature is, nevertheless, discussed because it is by far the nearest attempt made by accountants to look at the issue of O.E.

This chapter is divided into the following sections with these purposes:

2.2	to distinguish the notion of O.E. from efficiency;	
2.3	to look at the conceptual and practical difficulties of defining and measuring O.E.;	
2.4 onwards	to develop a comprehensive classification of O.E. literature within the functionalist matrix.	

2.2   Effectiveness Differentiated from Efficiency

Although much controversy surrounds the definition of O.E.

most theorists and organizational analysts agree that O.E. is logically

not identical to efficiency (Pfeffer and Salancik, 1978; Katz and

Kahn, 1978).

Efficiency is defined in a purely 'economic' sense, that is,

by the ratio of inputs used to outputs produced. Inputs and outputs

may refer to quantifiable physical elements or to qualitative

affective elements. For example, one of a company's outputs may be

widgets or racial discrimination, its inputs may include raw materials

or employee loyalty to the company. Katz and Kahn (1966) refer to

such a ratio as the "energetic ratio" of inputs and outputs, thus

conceptualizing both inputs and outputs as sources of energy. The

concept of efficiency is concerned with the question; given that one

knows the level of output desired, what is the least economic cost

combination of inputs that will produce that level of output? Or

what amounts to the same thing, what is the maximum level of output

that can be produced given a specific level of input. The question

asks 'how much is produced at what cost?' and is based on an

assumption that there is complete knowledge of and agreement about

the outputs desired. That is, the nature of organizational goals

and objectives is taken as known, given and unproblematic.

The concept of effectiveness asks a different question. Though

there is little agreement amongst theorists as to a universally

accepted definition of O.E., it is nevertheless evident that

effectiveness is concerned with evaluating organizational performance

and action against some criterion, standard or goal. The past and

current literature on O.E. may be classified broadly into

'descriptive' and prescriptive or normative theories of O.E. So-called 'descriptive' theories of O.E. attempt to provide answers to two questions:

    (a) What are the goals of the organization?

    (b) How far has the organization achieved these goals? Prescriptive theories of O.E. attempt to go beyond this level of analysis and evaluate the currently perceived operative goals of an organization against some value-based prescriptive criterion, e.g. social justice. (These distinctions between the two types of O.E. theories will be discussed later in more detail.)

As can be seen, efficiency considerations do not evaluate the nature and value of organizational outputs except in conventional economic market terms; since efficiency is taken to be 'good' a positive valuation is placed on a bigger ratio of output to input. The issue of effectiveness, on the other hand, does question the degree of goal achievement and more important the 'value' (social and individual) of these outputs. As efficiency and effectiveness are not the same, an organization may be efficient but not effective (however one defines this) or effective but not efficient.

Pfeffer and Salancik (1978) illustrate the distinction with two examples, the National Aeronautics and Space Administration Agency, N.A.S.A. and Famous Artists School, F.A.S. If one defined effectiveness as the degree of goal achievement, then the National Aeronautics and Space Administration during the 1960's was possibly an effective but inefficient organization. President Kennedy had set a national goal of landing Americans on the moon in a decade. In 1969 after eight years of intensive research and an investment of more than twenty-six billion dollars, the mission was accomplished.

In terms of achieving this goal, the organization was clearly effective. However, if one defined O.E. as the ability of an organization to meet the demands of participant groups and thus be viable in the long-run, then N.A.S.A. even during the 1960's was probably both ineffective and inefficient. This is because soon after the moon landing, the resource flow into N.A.S.A. was severely curtailed; it was obviously not satisfying the needs of one of its interest groups - the United States Government.

If one continues with the latter definition of O.E. then the F.A.S. International was an example of an efficient but ineffective organization. F.A.S. advertised in popular magazines for readers to learn to write or draw under expert guidance of famous authors and artists by using a correspondence course. However, it was soon discovered that initial qualifying tests were always positively evaluated and that guidance was provided by hired staff personnel who were relatively lowly paid. The F.A.S. then came under severe public criticism and government scrutiny. Eventually, the company filed for re-organization under bankruptcy laws in 1970. It had been a profitable and efficient business until its legitimacy was undermined and it failed to survive.

2.3   The Problems of Definition and Measurement

The nature of effectiveness is still one of the grey areas of accounting and organizational research. Explicit research into O.E. began to emerge some thirty years ago but as Steers (1977) pointed out there is no generally recognized theory on the concept, no agreement on its dimensions, determinants, influences and facets. Indeed, we do not really know whether the concept of effectiveness is a useful or meaningful one.

The fundamental reason behind this lack of agreement is the ambiguity that surrounds the notion of organizational goals. As we have seen, effectiveness required the comparison of action against some criterion or standard. There is little agreement about what this standard should be, despite the fact that the goal concept is central to the analysis of organizations. Indeed, Weber (1947) argues that one of the defining properties of an organization is the existence of some purposively, co-ordinated, collective activity. Because the difficulties involved in defining organizational goals are well-known (see Simon, 1964; Etzioni, 1960; Mohr, 1973; Hannan and Freeman, 1977) the following discussion will be brief and will concentrate on the major points of the goal controversy.

Difficulties with the goal concept lie at two levels: empirical and ontological. To begin with, theorists like Cyert and March (1963) argue that individuals have goals but organizations do not. Similarly, Silverman (1970) suggests:

> "....to say that an organization has a 'goal' may be to involve oneself in some of the difficulties associated with reification - that is, with the attribution of concrete reality, particularly the power of thought and action, to social constructs...... It seems doubtful whether it is legitimate to conceive of an organization as having a goal except where there is ongoing consensus between the members of the organization about the purpose of their interaction." (p9, Silverman, 1970)

Silverman's proviso illustrates the empirical difficulties of the goal concept; the fact that all organizations have multiple and usually conflicting goals, that multiplicity and conflict among goals prevent any organization from being fully effective (in the sense of simultaneously meeting diverse demands) and that an organization which is effective on one set of participant criteria may not be effective on another, (Friedlander & Pickle, 1968;

Steers, 1975; Hall, 1972).

Recent research also appears to question the ontological status of the notion that organizations act teleologically and are guided by a purpose. The early work of Lindblom (1959), Weick (1979), and the "garbage can" model of organization decision-making by March and Olsen (1976), have been used to support the argument that because organizations do not have a clear-cut, unitary, organizational goal that, therefore, the goal concept is of obvious limited analytical usefulness (Clegg and Dunkerley, 1980). That is, it does not exist as a valid social construct.

Such conclusions (typical of parochial theorising of O.E.), however, are hasty for their logical end leads to the argument that an organization as a whole is a reified example of random action; essentially the organization in a fundamental sense does not exist, only its parts do. Such reductionism when pursued to extremes will fail to explain the action of a complex whole and could all too easily fall into the social psychological penchant for confining study of the social world to group behaviour. A totality is not the sum of its parts (Ashby, 1956; Von Bertalanffy, 1968). Further, a close reading of Weick's views on organizational goals (1979) and O.E. (1977) shows in fact that he does not discard either concept. What he does argue is that rational, goal-directed, instrumental behaviour plays a relatively unimportant role in organizing which is treated as an evolutionary process of variation (enactment plus ecological change) and selective retention. Though Weick does not see organizations as material, substantive entities with objective properties but as sets of interlocked organizing processes that create order (remove equivocality), he does speak of organizing

effectiveness and indeed defines long-run adaptability in all its guises (e.g. diversity, hypocrisy, etc.) as the means to ultimate effectiveness. For him, evolutionary processes may not evolve toward anywhere consciously but they do evolve away from where they are and the degree of long-run adaptability and survival remains the appropriate criterion for evaluation effectiveness. Weick's concept of teleology is of "an away from" mode rather than "a towards somewhere" mode.

Though rationales for behaviour may be developed retrospectively (after the behaviour has been completed and is available for 'bracketing' and 'sense-making') goals, even to Weick, are valid constructs though he emphasizes to an excessive degree goals as emergent ex post rationales rather than goals as preset guides for instrumental action. Therefore, it is contended that the work of researchers like March and Olsen and Weick show rather that simple, naive interpretations of an organizational goal are inadequate but they do not invalidate the notion of an organizational goal as a holistic idea.

Further, such empirical properties of ambiguity, conflict and contraditions are to be expected when studying complex purposes. An organization like a single human being may possess internal contradictions but one does not automatically proceed to deny the existence of individual goals. Why should one deny the existence and analytical usefulness of organizational goals? As Hall (1972) states:

> "Even when forgotten or ignored, the goal is still
> the basis for the organization, since the means
> would not have developed without it in the first place".
> (p94, Hall, 1972)

The dynamics of goal conflict, change and negotiation do not alter the fact that goals still guide what happens in an organization. Without this concept, organizational behaviour becomes a completely random occurrence, subject only to arbitrary forces and pressures. Since organizations do have continuity, do act, achieve, fail, the theoretical construct of organizational goals remains a valid explanatory and predictive tool. (See Mohr, 1973; Haworth, 1959; Mandelbaum, 1955.) Just because a concept is difficult to define is no reason for discarding it unless the usefulness of knowledge is judged by the relative ease or otherwise of obtaining it. Clegg and Dunkerley (1980) further contend that there is a tendency for goal analyses to stereotype research findings in that organizations are inevitably found wanting. Again this appears to be rejecting a theoretical construct on flimsy epistemological grounds; knowledge needs to be evaluated with respect to some definition of purpose, and not to some notion of a normal distribution of its results.

So far this review has argued that the concept of an organizational goal is analytically valid and so is the notion of organizational effectiveness but disagreement still reigns as to their definitions.

Much of the voluminous literature on goals and O.E. to date (with the exception of Weick's work) lies within the "functionalist paradigm" of Burrell and Morgan (1979) and reflects the psychological type of the Analytical Scientist (Laughlin et al., 1981; Mitroff and Kilmann, 1978). They also reflect an inherent interest in "technical administration" and is impregnated with a technical rationality (Habermas, 1972). The implications of this

and the different classifications themselves will be discussed in detail in the next chapter.

2.4   O.E. Research Within the Functionalist View of Social Reality

Research within this matrix shares fundamental assumptions on three levels: ontological, epistemological and methodological. Ontologically, researchers here generally view man as basically deterministic and a part of the naturalistic world which can be objectively studied just like other natural objects, e.g. plants and animals. The proper study of man is conceived to be the problem and nature of social order and as in the natural sciences, attempts are made to formulate universal laws of behaviour that will predict and explain causal human behaviour. The search for hypothetical-deductive theories, which permit the deduction of empirical generalizations from lawlike hypotheses and the requirement of controlled observation and experimentation indicate that

> "theories of the empirical sciences disclose reality
> subject to the constitutive interest in the possible
> securing and expansion, through information, of
> feedback-monitored action. This is the cognitive
> interest in technical control over objectified
> processes". (p309, Habermas, 1972)

Though there are broad similarities on these three sets of assumptions there are nevertheless, differences amongst the different theories of O.E. It is contended that these differences are on two levels: ontologically, as to the existence of an organization as a reified whole and epistemologically, as to the degree of value neutrality present and admissible in social theory. These two differences may be represented as two dimensions which can be used to classify the literature.

The first dimension is often labelled as a distinction between 'descriptive' and normative/prescriptive theories. 'Descriptive' theories purport to be explanations and predictions of empirical phenomena that are value-free. They merely 'report' without incorporating any of the value judgements of the researcher investigating the situation. Hence, descriptive theories of O.E. limit themselves to the two following questions:

(a) What <u>are</u> the actual, real goals in an organization?

(b) How far has the organization achieved these goals?

Empirically, descriptive theories that seek to demonstrate causal relationships have tried to show that 'effective' organizations have distinctive characteristics, that is, their definitions of O.E. are given constructively (Pondy, 1977). (See Price, 1968; Lawrence and Lorsch, 1967).

Normative theories on the other hand include within their formulation explicit consideration of values, ethics or morals (this distinction between positive, descriptive theories and normative ones is clearly shown in the various branches of economics). Normative theories of O.E. attempt to ask a third question: what <u>should</u> the goals of an organization be and how successful is the organization when measured against these goals? In general these theories attempt to evaluate observable organizational behaviour and goals against a clearly explicated normative standpoint. In order that organizations may be effective, they 'ought to be' or must pursue certain strategies. That is, O.E. is defined ostensibly (Pondy, 1977). The work of Keeley (1978) and Cummings (1977) are clearly in this area.

It is argued that such labels are logically and analytically

unhelpful. To the extent that no theory is value-free, except possibly a 'pure' mathematical theory, it is impossible to <u>describe</u> all phenomenon without <u>prescribing</u> from some value premise (Allen, 1975; Blackburn, 1972). As already discussed brilliantly by Berlin (1962) and Bernstein (1976) all knowledge is a product of the social world and so is the means by which knowledge is acquired, compartmentalised, conceptualised and evaluated. 'Facts' are always creatures of specific historical, social, economic and political conditions. Therefore, beliefs and values will influence the choice of objects of 'description', the language and concepts used in 'describing'. For these reasons, our first dimension used in classifying O.E. theories will be re-labelled 'implicitly prescriptive' and explicitly prescriptive'. The implicitly prescriptive bias of so-called descriptive theories is revealed in that they often assume that current, observable goals are sacrosansct and ought to prevail in the long-run.

The second dimension may be labelled as parochial versus holistic views on the nature of organisations, goals and O.E. A parochial theorist argues that O.E. does not exist per se and argue for adopting the goals and values of a particular participant group as the criterion against which to measure O.E. For example, a theorist could argue that the goals of shareholders/equity owners were the most important in assessing O.E. A holistic researcher, on the other hand, views the organisation as a whole and evaluates effectiveness from the standpoint of the totality. For example, the satisficing notions of Simon (1964) and Tinker's F-set (1975) attempt to maintain a holistic view of the organisation. There are also O.E. theories which lie midway on this dimension, which

argue that whilst one must view the organisation as a total coalition with different stakeholders, O.E. can only be assessed via an analysis of the separate effects of corporate action on different interest groups. Hence, a particular strategy should be assessed by looking at its individual effects on, say, customers, suppliers, etc.

These two dimensions are not put forward as a priori categories which classify all functionalist social theories. Rather, they are put forward as empirical classifications that pertain particularly to functionalist theories of organizational assessment. Their validity stems primarily from the fact that they strike at the heart of prevailing controversy within this matrix. The first dimension, for example, is an epistemological assumption about the nature and limits of scientific knowledge. The second is an ontological belief about the nature of social reality, a belief as to whether social collectivities can in any sense be analysed and studied as a whole. As such, this classification of functionalist O.E. theories strikes at the fundamental differences and assumptions which underlie each approach. It highlights deep-seated differences in rules of guidance; unlike the classifications of Steers (1977) and Campbell (1977) which but skate on the surface of methodological differences between different O.E. theories. Neither of these two reviews attempts to derive a comprehensive argument as to the root causes of differentiation; they also fail to locate functionalist, mainstream O.E. theories within the larger framework of different modes of social inquiry. It is, therefore, contended that the classificatory matrix shown below in Diagram 2.1 will prove a more useful analytical tool.

```
              Implicitly                    Explicitly
              prescriptive                  prescriptive

Parochial   ┌──────────────────────┬──────────────────────┐
            │                      │                      │
            │                      │                      │
            │                      │                      │
            │                      │                      │
            │                      │                      │
            ├──────────────────────┼──────────────────────┤
            │                      │                      │
            │                      │                      │
            │                      │                      │
            │                      │                      │
Holistic    └──────────────────────┴──────────────────────┘
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Diagram 2.1: A Classificatory Matrix for Functional

Theories of Organisational Effectiveness

2.5   Implicitly Prescriptive Level of Analysis

Within this category fall several variants of the so-called
'goal model of O.E.'. This term, however, is somewhat of a misnomer
as the concept of organizational goals has at times been wholly
equated with these theories. Hence, inherent weaknesses in these
approaches to O.E. have led some researchers to reject outright
the notion of organizational, as opposed to group, goals. Second,
the oft-made distinction in the literature between a 'goal-model'
and a 'systems model' of O.E. is not helpful and tends to imply that
system analysts do not consider the notion of organizational goals.
The term 'a goal-model of organizational effectiveness' will hence
be avoided and if used will always be put in parentheses to indicate
that it has a limited meaning, viz to refer solely to the official
goal model, the operative goal model and the dominant coalitional
goal model.

2.5.1 Implicitly Prescriptive, Parochial Approaches to O.E.

The legitimated authority (or official) goal model falls within
this classification. It focuses on the

> "general purposes of the organization as put
> forth in the charter, annual reports, public
> statements by key executives and other
> authoritative pronouncements". (p855, Perrow, 1961)

Hence, it argues that O.E. be evaluated against the currently stated
goals of the officers within the organisation, including those
contained in corporate policy statements and procedure manuals.
This approach to O.E. has close affinitie to what Gouldner (1959)
called the rational systems approach to organisations which argued
that goals are the rational outcome of organisation practice which
are themselves rational phenomena and that they contribute to the

overall rationality of organisations. Such a perspective has its

roots in the Weberian concept of functional rationality which sees

organisations as rational instruments set up to attain expressly

announced organisational goals. As such a rational instrument the

organisation represents an economy whose main lack is the systematic,

rational manipulation of scarce resources, including labour for the

attainment of these specific goals (Selznick, 1948). The rational

systems perspective on organisation tends to focus on the means

activities, while the official goal model focusses on the ends

announced by key figures in an organisation.

This model is exemplified by much of the work done in accounting

for non-profit organisations (NPO) - so-called 'evaluation research'.

This area of work expanded rapidly in the U.S. during the 1960's

especially due to the Federal Government's emphasis on rationalised

decision-making in the Department of Defence. Techniques for

evaluation such as PPBS, cost-benefit analysis, cost-effectiveness

analysis and zero-based budgeting were and still are widely used

in evaluating the effectiveness of welfare, educational and voluntary

institutions. However, such approaches often take the "official"

version of organisational goals and no effort is made to provide a

normative, critical analysis. For example, the work of Sorenson and

Grove (1977); Weathersby and Balderston (1972); Sizer (1979);

Cameron (1978) and Norris (1978) all start from the premise that

the goals of a university relate to teaching, research and the

promotion of societal progress through increasing its stock of

knowledge.

Such an analysis of organisational goals is extremely naive

as 'official' or legitimated authority statements are not useful

standards for evaluating effectiveness; being often vague, non-
operational and subjected to a variety of interpretations.

Though such statements may give some guidelines as to the

objectives of an organisation, they may equally be pieces of

managerial propaganda. In any case, they are not representative

of the goals of all organisational participants and hence, in no

sense can they be representative of the whole organisation.

Yet another rather unsatisfactory parochial approach which has

gained some acceptance amongst organisation theorists is the dominant

coalitional model. This identifies the notion of organisational

goals with the goals of the 'dominant coalition' within an

organisation. It is argued that since organisations are

collectivities they do not have goals. What one observes is but

organisational behaviour which is indicative of the goals of

powerful individuals within the organisation, that is, the goals

which are currently operational within an organisation are in

reality those of this dominant sub-group (Cyert and March, 1963).

Similarly, Goodman and Pennings (1977) define organisational

goals as desired end states specified by the dominant coalition;

an organisation is effective if it satisfies relevant constraints and

approximates or exceeds a set of referents for those multiple goals.

Thompson (1967) is yet another proponent of this theory and he

poses two questions with regard to identifying goals: (i) how can

one define the goals within and (ii) how can one discover the

dominant goals?

While this concept of a dominant coalition is useful and leads to

a fruitful emphasis on the politics of goal-setting and change,

much empirical work remains to be done in order to establish that

such a stable coalition can be identified. It may be that interest

and participant groups are so tightly coupled and inter-dependent

that it is not possible for organisational behaviour to be fully

determined by the goals of any one dominant group. It is often

observed that the goals of top management are considerably modified

by lower level participants. As Georgiou (1973) argues:

> "Organisations' behaviour cannot be so fully determined
> by the goals of any one group. These goals are
> modified, conditioned and limited by the need to
> satisfy the demands of other groups upon which the
> ostensibly dominant group is dependent to achieve its
> goals, or more accurately, some part of them". (p297,
> Georgiou, 1973)

Georgiou illustrates pointedly from Perrow's (1961) own work

on hospitals; where none of the three groups - trustees,

administrators, or doctors - could achieve the degree of control

required by a dominant group, because the goal attainment of each

was firmly dependent on the resources possessed by the others.

Further, power could be widely distributed within an organisation,

or the influence of interest groups could be curtailed by

environmental factors beyond their control - legislation, social

changes, etc.

In addition, assessing effectiveness in terms of the extent to

which the goals of the dominant coalition have been achieved does

not appear to be assessing organisational effectiveness. The word

organisational has effectively been replaced by the words

'dominant coalition'. This stems directly from a parochial as

opposed to a holistic analysis of an organisation. By concentrating

on the achievement of dominant coalition needs, this approach

neglects to consider the needs and contributions of other ('non-

dominant') members. How do their goals fit into the effectiveness

picture? What is their opinion of how effective the organisation is in terms of their interests? Surely organisational evaluation should seek to assess the organisation as a whole and to incorporate the voices of all member groups in such an assessment.

This criticism reflects a fundamental difficulty with parochial approaches to the study of O.E. - their inability to understand the organisation as a whole. In effect, these theories deny the concept of a holistic coalition and substitute a partial analysis for a general one. Because of this partial analysis, these theories fail to discriminate satisfactorily between the goals and non-goals of an organisation. Because organisations are holistic systems, there are outcomes or events which are properly called the outcomes of the organisation. These are irreducible to the acts of specific individuals (Haworth, 1959; Maudelbaum, 1955). But how does one distinguish a sub-set of all these outcomes as the goals, the intended functions of the organisation? Often, member intention has been used by theorists as a means of distinguishing these outcomes. That is, those outcomes which were intended and planned for by members of the organisation are designated as goals, while those which are not presumably are the non-goals. But this solution ignores the fact that these members may not have intended other outcomes which are generally considered goals. For example, the activities of employees or customers may contribute to profits without being so intended but this does not mean that profits are not a goal of a company. This issue of goals is further confused when one begins to speak of official and unofficial goals and the concept of "goal displacement". These are value-laden terms that tend to view the goals of management as being the only legitimate ends of an organisation. All else, so

it is implied, are deflections from the proper course of action.

Finally, highlighting the goals of particular interest groups may not adequately resolve the problem of conflicting preferences and goals amongst different interest groups. Friedlander and Pickle (1968) showed, for example, that the demands of various groups (the community, government, customers, suppliers, creditors, owners and employees) could not be concurrently satisfied and, in fact, some demands were negatively correlated with others. Though the dominant coalition model does attempt to incorporate some analysis of interparticipant group bargaining, there is a danger that one concentrates only on the powerful individuals within the organisation, while neglecting the needs and goals of the 'less dominant' and 'the rest of the organisation'.

2.5.2 Implicitly Prescriptive, Holistic Approaches to O.E.

In contrast to the official, legitimated authority model, the 'operative goal model' attempts to focus on the

> "ends sought through the actual operating policies
> of the organisation; they tell us what the
> organisation actually is trying to do, regardless
> of what the official goals say are the aims".
> (p855, Perrow, 1961)

This general rubric of operative goals includes the decisions made in choosing the priority of multiple goals and the unofficial goals pursued by various participant groups within the organisation. Unlike the two approaches discussed above, this model does try to analyse organisational behaviour as opposed to the behaviour of particular groups and individuals. Perrow, however, did add that operative goals would be shaped by the dominant group, but this influence is seen as being illustrative of participant group

influence. Unlike the dominant coalitional model, the notion of

operative goals does not ignore the interests of 'less dominant'

participants.

Compared with the earlier approaches Perrow's distinction between

official and operative goals is useful. However, as Keeley (1978)

pointed out, there are difficulties with the model. Firstly, it

is difficult to determine what organisations are actually doing or

trying to do. In some cases the activities of organisational members

may suggest a clear-cut goal, but more often activities are capable

of a variety of social interpretations and there may be

inconsistent accounts of the purpose of a given choice. To propose

that one can discover what an organisation is actually doing by

looking hard enough naively assumes that there is only one 'objective',

substantive reality that influences organisational behaviour. It is

far more likely that organisational participants act and behave on

their subjective, value-laden, perception and construction of reality.

And, therefore, to propose that one tries to discover what an

organisation is 'actually' doing may be looking for the needle in

the haystack (Schutz, 1967; Weick, 1979).

Secondly, this approach does not resolve the problems of

conflicting preferences amongst participants and hence internally

conflicting 'operative goals'. Hall (1972) noted that the 'operative

goal' model may not be applicable to the organization as a whole

(to the extent that intra-organizational conflict exists) and it

may not be possible to employ the concept across organizations

(to the extent that operative goal-sets differ). Steers (1975)

attempted to provide a preference ordering to 'operative goals' by

suggesting that such goals be weighted according to the effort

expended in their pursuit. Effectiveness was then measured by the degree to which a weighted 'operative goal' set was optimised, subject to internal and external constraints. But this approach fails to recognise that the amount currently expended on 'operative goals' may not be what should be expended in terms of long-run survival or some other evaluative norm.

Indeed, what the organisation is trying to do may not be what it should be doing! This third criticism touches on a central difficulty with these uncritical so-called 'descriptive' theories of O.E. That is, in the course of avoiding explicitly prescriptive criteria of organisational worth, they appear to embrace a conservative philosophy that elevates the status quo to a normative ideal. Such an approach concludes that the particular goals that are observed to be operative, official or dominant at an arbitrary point in time - that of observation - are assumed to indicate a "proper" course for the organisation. These theories fail to ask higher order evaluative questions - should these be the goals of the organisation, should the organisation be doing in the future what it is now doing? Should the goals of the dominant coalition be dominant? By neglecting to ask these questions, these theories, in fact, promote the existing social and power structure within an organisation and its societal environment. They provide few signposts for change and in cybernetic terms lack a feedback control device.

2.6   Approaches to O.E. which Lie on the Boundaries of the Two
       Dimensions

The following are approaches to O.E. which are not easily categorised into one of the four boxes and, in fact, fall

approximately in the middle of the diagram. Included in here

is the so-called 'multiple-constituency' approach of Connolly,

Conlen and Deutsch (1980).

They argue that though organisations are holistic coalitions,

nevertheless they cannot be assessed holistically. Essentially,

there is no such concept as "organisational effectiveness". One

can only speak of effectiveness for a particular group of participants

which might mean ineffectiveness for another group. As seen in

the next chapter, this practice has been advocated by Hopwood (1979).

Empirical support for this position, so it is argued comes from such

work as that of Friedlander and Pickle (1968) who discovered that

participant group demands on small business organisations had low and

at times negative correlations. Therefore, since different group

demands cannot be statistically correlated they must be assessed

separately in order to avoid interpersonal comparisons of trade-

offs.

Much of the social responsibility accounting literature also

adopt this 'separate effect' argument. For example, the AAA Report

on "Non-Financial Measures of Effectiveness" (1971) argues that

> "except where goals are clearly specified, the
> best we can hope to achieve is to provide
> information which might potentially aid individual
> users in evaluating effectiveness. In this sense
> it might be more appropriate to substitute non-
> financial measures of "events" or "effects" in place
> of "effectiveness"." (p167, AAA, 1971)

Consequently, most social reports on company performance set out

separately corporate effects on customers, suppliers, stockholders,

the "physical environment", the "social environment", etc. (see,

Schreuder, 1979; Dierkes, 1979; Brockhoff, 1979).

Though practically unassailable, this theory of O.E. ignores the vital empirical 'fact' that managers and organisations continually make decisions and choices which have unequal effects on different participant groups, i.e. unequal as well as different (the former adjective implying a common standard of assessment being possible). Further, as with parochial approaches this denies the existence of an organisation as a whole.

2.7   Explicitly Prescriptive Level of Analysis

These theories of O.E. attempt to articulate some prescriptive criterion against which organisational behaviour may be evaluated. They escape the weaknesses of the above approach but prescriptive analysis is not without its problems. Firstly, should social scientists attempt to prescribe organisational behaviour? Or should one leave judgements of 'what ought to be done' to participant groups within the organisation? As argued before, no theory is completely value free and even so-called 'descriptive' approaches to O.E. embrace a rather conservative philosophy. Therefore, it is not possible to merely 'describe' without prescribing and it is imperative that one recognises and articulates the value premises and assumptions of one's theoretical position. Further, it is only by having a vision of 'what ought to be' that one may induce change that may be required in prevailing systematic relationships and thus improve the collective human welfare of organisations and societies. Without such a vision human relationships reduce to ad hoc, random responses that may not contribute to the full development of man's abilities. Secondly, there are prescriptive approaches which are parochial and therefore are unable to predict and explain the workings of the organisation as a whole. However,

prescriptive, holistic approaches to O.E. do also exist and they point the way forward towards an adequate theory of O.E. within the functionalist paradigm.

2.7.1 Explicitly Prescriptive, Parochial Approaches to O.E.

These attempt to argue that the criteria, goals, values and beliefs of particular participant groups ought to be used as the standard for evaluating organisational effectiveness. Much of classical economic and accounting theory which is based on a stockholder theory of the firm falls within this category. These approaches emphasize profit-maximisation as the optimisation criterion and financial surrogates of effectiveness such as profitability, profits, return on investment, earnings per share and dividends.

As Tinker (1975) points out such approaches derive from early ideas about the motivation and behaviour of man; whose behaviour could be prescribed and explained in terms of the maximisation of the net (present) value of expected flows of benefits and sacrifices. In the market economy these flows were approximated to monetary (exchange) flows and subsequently accountants accepted the general premises of the advocates of economic income, subjective profit and net present value and struggled to 'patch over' the equivocations of earlier theorists. Thus, Edwards and Bell (1961) have proposed two 'objective' definitions of income - business profit and realisable profit. The difficulty with such so-called 'objective' financial measures of organisational worth is that current market values may not reflect the unique talents and skills of a particular enterprise. Though these discrepancies may work themselves out in the long run, in the short run they are inevitable, and consequently could mislead the users of such information.

A similar emphasis on the goals of the 'owners' of the firm is exhibited in the work of Becker and Neuhauser (1975), who argue that it is only the owners, i.e. the holders of property rights to the total organisation who have the right to shape and mould the organisation. Their entrepreneurial theory of the firm is based on an assertion that organisations are owned and hence can be treated with transferable rights. According to the theory, the owners of a privately owned company are the shareholders whilst those of a publicly held organisation like a hospital, are probably the chief executives or board of trustees.

Their approach to O.E. is highly questionable. Firstly, it closely resembled the 'official goal model' in its naivety. Secondly, it fails to take into consideration the preferences and values of other participant groups; such neglect may lead to the ultimate detriment of the organisation as a whole. However, the approach may still be fruitful in that it highlights the notion of satisfying the needs of participant groups. But one must not only concentrate on the need satisfaction of one particular group but of the coalition as a whole, since only in that manner can one reach valid predictions and explanations.

A radically different parochial perspective is taken by two other theorists. Because prescriptive approaches to O.E. centre on issues such as the allocation of benefits and contributions in the face of conflicting interests, and the feasibility of defining an optimum position on an organizational social welfare function, theorists have also (perhaps inevitably) turned to moral and ethical philosophy and welfare economics in an attempt to legitimize their particular parochial positions. Cummings (1977) for instance, argues that an

effective organization is one in which the greatest percentage of members perceive themselves free to use the organization and its subsystems and instruments for their own ends. This approach clearly echoes the classical utilitarian principles of Bentham and Mill which stress the greatest satisfaction of the greatest number. However, there are defects with this focus on the satisfaction of needs of 'as many members as possible'. First, it is difficult to generalize. Second, it is theoretically suspect in a number of disciplines: in economics since interpersonal comparisons of satisfaction are frowned upon; in philosophy since a 'just' distribution of satisfaction may not be assured; and in sociology since there is no clear-cut connection between aggregate social utility and system stability. Thirdly, a satisfied coalition may not be a physically productive one, and clearly the concept of O.E. should include some notion of productivity; more to the point nor may the state of satisfaction be conclusive to the survival of the whole enterprise, upon whom the survival of the satisfaction of the individual member is said to depend.

Nevertheless, these suggestions are useful in that though parochially-oriented the ethics of allocation are being explicitly considered. To date accountants and organization theorists in a seemingly concerted conspiracy have studiously avoided any mention of a value-based, moral criterion of organizational assessment. Lip service has been paid to the necessity of reporting on the social consequences of corporate action but the welfare issues of allocation have been deflected by taking a conservative 'separate effects' approach. Unlike welfare economists, hardly any attempt has been .made to rigorously analyse the value basis on which judgements of

'worthiness' and 'effectiveness' must necessarily be based. Few

O.E. researchers recognize or acknowledge that questions about O.E.

are linked tightly to questions about the social desirability of a

particular allocation of inducements and contributions.

The work of Keeley (1978) is, therefore, a refreshing

reminder of this. He rightly saw the links between theories of

O.E. and welfare economics and went on to explicate the work of

Rawls as a theory of organizational assessment. He argues for a

moral norm - maximising the utility of a system's most

disadvantaged (and regretful) participants on the grounds that this

is what rational human beings would choose if they were behind a

"veil of ignorance".

Rawls' theory of justice is based on two principles,

> "first, each person is to have an equal right to
> the most extensive basic liberty compatible with
> a similar liberty for others" and second, "social
> and economic inequalities are to be arranged so
> that they are both (a) to the greatest benefit of
> the least advantaged and (b) attached to position
> and offices open to all under conditions of fair
> equality of opportunity". (p83, Rawls, 1971)

Rawl's work has been much criticised, particularly his maximin

principle, i.e. maximising the satisfaction of the least

advantaged participants. As Orr and Ramm (1974) point out the

Rawlsian argument is not hard to rationalise in terms of any

criterion and Keeley proves the point. He changes the criterion

to that of a minimax regret principle! Further, Rawl's

principles may prove insufficient for policy making when extended

beyond a two-individual two-state world, as in the following

situation.

Consider an organization of three individuals who must choose

between two mutually exclusive states of the world χ_1 and χ_2 each

Individual / State of the world	.1	2	3
1	$u_i = 50$	$u_2 = 20$	$u_3 = 10$
2	$u_i = 50$	$u_2 = 10$	$u_3 = 20$

u = utils of satisfaction

Diagram 2.2: A Welfare Matrix

of which leads to only one state of the world and satisfies Rawls'
two conditions of justice equally. The welfare realized by the
members of the organization in the social states resulting from
these actions are: χ_1 and χ_2.

Suppose χ_1 is chosen; setting χ_2, then, would be more just and
effective, since it would increase the welfare of the least
advantaged individual from 10 to 20. However, if χ_2 were chosen,
X_1 would once again become just, because χ_2 makes individual 2 the
least advantaged individual. Such trade-offs in fact, could leave
a system vacillating between two or more situations, all of which
are just and effective. Rawls, in fact, does not discuss well such
cyclical problems of the type suggested. He assumes, rather
conveniently, that society is 'chain-connected'. That is, the
effect of any benefit to the least advantaged will also benefit
everyone else. Also Rawls' definition of the least 'advantaged'
is difficult to operationalize. Does one use income as a surrogate
measure? But income is well known as being only an approximation
of happiness.

Secondly, Rawls claims that one of the important advantages
claimed for the principles derived from the original position is
that they stand a greater chance of compliance in the real world than
any of their competitors. For this to be true, however, it is
necessary that the principles be formulated so that all
individuals can determine fairly readily what conduct compliance
requires, and, of course, all must be compelled by the nature of
the arguments for compliance based upon a consensus reached in the
original position. Hart (1973) shows by some simple illustrations
how the rights to exclude trespassers exercised by a farmer could

conflict with the rights to free movement of a hiker. That is, the priority of liberty principle explicated by Rawls will do nothing to promote compliance with the social contract if the farmer and hiker, or any two people selected at random, are not likely to agree on whose right is to be preserved upon adopting the reflective frame of mind called for in the original position. Problems of compliance could also arise among the various candidates for the worst off position (Klevorick, 1974). As Arrow (1973) and Harsanyi (1975) have noted, these are likely to include the mentally and physically ill and handicapped as well as the very poor. But with the set of primary goods defined over several dimensions, individuals in the original position would be forced into the same kind of interpersonal utility comparisons as the type Rawls seeks to avoid (Arrow, 1973).

A third criticism of Rawls can be seen in the works of Nagel (1973) and Nozick (1974). They point out that individuals may want to consider the context and process by which outcomes are determined, perhaps along with those outcomes, in choosing principles of justice. That is, the fun of a game is in playing, and all of the rules would govern the process by which winners are selected and not the final positions of the winners. It is dangerous, of course, to draw too close the analogy between life and the choice of social states with a game of chance. However, it is ironic that Rawls' theory which derives its conception of justice from the process by which principles are chosen, rules out all consideration of principles that deal with the subsequent process of social interaction.

Lastly, like Cummings, Keeley fails to recognise that different participants control resources which differ in terms of their strategic utility to the coalition as a whole. Hence, those who at present are the most regretful members may require less attention because one must consider the needs of other dissatisfied members who possess more critical resources. In other worlds, if the system as a whole is to continue to survive as a need-satisfier in the long-run, then a simple blanket optimization principle such as that advanced may not be sufficient.

The debate about Rawls' work could go on for many pages but it is hoped that some of the essential points have been dealt with here. The reason for concentrating on his work is that he, more than any other economist has tried to suggest principles for defining a unique social optimum. As argued before, few economists have tried to systematically define such an optimum and have confined themselves to delineating the set of conditions necessary for Pareto optimality. Rawls' work attempts to conform to Arrow's axioms and to derive a theory of social optimality that focusses on the process or context in which decisions are made.

As can be seen, prescriptive approaches to O.E. have tried to draw on welfare economics as a way forward in assessing organizations. But parochial approaches suffer from inherent weaknesses by being parochial, and lacking a concept of the totality of interactions. The individualistic basis of economics, reflected in the way in which welfare functions are conceptualized as mere aggregates of individual utilities, in which the concept of inter-personal comparison of utilities (though an acknowledged explanation of empirical phenomena) is seen as inimical, renders much of this line of inquiry impotent.

However, welfare economists at least recognize the value assumptions
which underlie their work.

We turn now to the last 'box' for review. Here theories of
O.E. will be considered which take a totalistic perspective of
the organization.

2.7.2 <u>Explicitly Prescriptive, Holistic Approaches to O.E.</u>

An approach which falls into this box is the systems resource
model of Yuchtman and Seashore (1967). Their theory is not strongly
prescriptive and hence is placed towards the left-hand corner of
the box.

Yuchtman and Seashore define effectiveness as the ability of
the organization in either absolute or relative terms, to exploit'
its environment in the acquisition of scarce and valued resources.
The Yuchtman and Seashore model, sets out explicitly to
reject the notion of goals being used for organizational
evaluation but, in fact, retains that concept. (See Hall, 1972;
Keeley, 1978.) According to the model, the acquisition of resources
from the environment is based upon an 'ultimate criterion' which is
unfortunately left unspecified. They argue that since this
ultimate criterion (whatever it may be) is impossible to measure
(sic) it is more feasible to specify penultimate criteria. As can
be seen, their ultimate criterion is identical to previous
concepts of universal goals and their penultimate criteria to
'operative goals'. Hence this issue of goals versus resource
acquisition is in many ways an argument over semantics. Further,
the acquisition of resources does not just happen. It is based on
what the organization is trying to achieve - its goal. As Mohr (1973)

points out, the definitions of 'valued' and 'scarce' resources

may be ambiguous in the absence of more specific goals. Hence,

the Yuchtman and Seashore model merely places its emphasis on the

attainment of means towards unspecified organizational goals. It

differs from the 'official goal' and 'operative goal' models only

in terms of abstraction and emphasis in its definition of

organizational goals.

The model is further criticised for implying that the

effectiveness issue is one that must be handled organization by

organization, or at least type of organization by type of

organization, since different types of organizations or parts of

an organization require different resources. One is, therefore,

not surprised when empirical studies which implicitly utilise

the model show that penultimate criteria of effectiveness could

vary from one department to another within the same organization

(Mahoney, 1967; Mahoney and Weitzel, 1969). Essentially, this

model denies a holistic perspective that assesses the organization

as a whole, and one is left rather unsatisfactorily with assessing

departmental effectiveness.

Though this particular systems model of O.E. did not gain

widespread acceptance, the systems model of organizations did.

From the early 1950's onwards 'the systems approach' has assumed

increasing importance in a wide variety of social sciences -

from organization theory, sociology, psychology to archaeology.

Though Naughton (1979) is correct to some extent in suggesting

that systems theory is not a totally coherent body of thought but

rather a "melange of insights, theorems, tautologies and hunches",

it is argued here that _there_ are strands within the literature

which identify systems thinking and which set it apart as a

distinctive mode of thought and methodology.

The central concept of systems thinking is that of a 'system'

itself - defined as a whole of interacting parts (Von Bertalanffy,

1968). Systems analysts stress that complex, high level systems

like micro-organizations, and human societies must be studied

holistically in contrast to the reductionist approach of much

natural-scientific activity. As Checkland (1972) points out

> "the systems movement.....represents an attempt
> to be holistic, and to find out the consequences
> of being holistic, in any area of endeavour".
> (p2, Checkland, 1972).

This approach emphasizes the importance of emergent properties,

i.e. properties that are characteristic of the system but not of

its parts. This concept of holism may be and has been further

extended. Phillips (1977) produces a useful classification of the

ways in which 'holism' has been conceptualized. Holism 3 states

that it is necessary to have terms referring to the wholes and their

properties whilst Holism 2 states that a whole, even after it is

studied cannot be explained in terms of its parts. 'Holism' 1, the

strongest form of the 'holism' thesis states that:

(i) the analytic approach, as typified by

the physico-chemical sciences, proves

inadequate when applied to certain cases,

e.g. to a biological organism, to society,

or even to reality as a whole;

(ii) the whole is more than the sum of its parts;

(iii) the whole determines the nature of its parts;

(iv) the parts cannot be understood in isolation from

the whole; and

(v)   the parts are dynamically inter-related or

interdependent.

As Otley (1981) points out, it is not often clear which

meaning of the term 'holism' is intended by system theorists.

However, the tenets of Holism 1 (see Phillips, 1977) have been

most often implied by system analysts. A second unifying strand

in systems research is the belief that the purpose of systems

thinking is to understand, explain, predict and thereby control

the underlying structure and behaviour of the system as a whole.

A causal analysis of the determinants of order and change is,

therefore required and so is an analysis of the inter-relationships

amongst the parts of a system.

Within the limits of these general, unifying strands, there are,

however, a wide variety of systems models. As Morgan (1979) and

Burrell and Morgan (1979) argue systems theorists have used a

number of analogies or metaphors to represent the phenomena being

studied. They identified five commonly used systems metaphors:

mechanical, organismic, morphogenic, factional and catastrophic.

The first three of these have been developed within a "functionalist

paradigm" whilst the latter two have been linked with the more

radical approaches.

The mechanistic model of organization argues that

organizations are basically in an underlying state of dynamic

equilibrium or homeostatis. All disturbances from the environment

or elsewhere can only lead to temporary disequilibrium as the

system will always be able to cope with such influences. This

systems metaphor, however, soon lost its importance as

researchers began to recognize that its basic assumption of

equilibrium was not empirically valid and that environmental change could radically change and destroy the very structure and essence of a system.

Today the majority of systems models used in the social sciences tend to be built on the organismic analogy. Such analyses are usually organized around the following general principles:

(a)   that the system can be identified by a boundary drawn at a resolution level that reflects the researcher's interest;

(b)   that the system is essentially processual in nature;

(c)   that this process can be conceptualized in terms of a basic model which focusses upon input, transformation, output and feedback;

(d)   that the system is composed of subsystems which contribute to the satisfaction of the system's overall needs;

(e)   that these subsystems, which themselves have identifiable boundaries, are in a state of mutual interdependence, both internally and in relation to their environment;

(f)   that the critical activities within the context of system operation are those that involve boundary transactions, both internally between subsystems and externally in relation to the environment; and

(g)   that in the context of system effectiveness, this is identified with the satisfaction of system needs

such that the long-run survival of the system is ensured.

One of the earlier attempts to define O.E. using just such an organismic analogy of the organization is the work of Etzioni (1960). He starts from the premise that an organization is a 'working model of a social unit which is capable of achieving a goal'. An organizational goal is further defined as a desired state of affairs which the organization attempts to realize. Etzioni thus concentrates on what Perrow (1961) terms operative goals. He also attempts to explicate two criteria for the assessment of O.E. First, there is a 'system survival model' which has an 'optimal', 'balanced' allocation of resources. Then there is a 'system effectiveness model' which is most effective in the service of a given goal, (operative goal). Though Etzioni's suggestions sound useful, upon scrutiny they are not. With the systems survival model one is not told what is an optimum or how it is to be achieved. Etzioni does suggest, however, that the analyst determines for himself what a highly effective allocation means! In the system effectiveness model, operative goal achievement appears to be the norm. We have discussed already the difficulties with such an approach.

Other systems attempts at defining O.E. prescribe a list of systemic needs which ensure long-run survival. For example, Georgopoulos and Tannenbaum (1957) define O.E. as the extent to which an organization as a social system, given certain resources and means, fulfills its objectives without incapacitating its means and resources and without placing undue strain upon its members. They measure O.E. on three criteria: (i) organizational

productivity, (ii) organizational flexibility and (iii) the absence

of intra-organizational strain. Similarly, formulations are made

by Parsons (1960) who defines four functional imperatives and

'problems' which must be met: adaptation, goal attainment,

integration, latency or pattern maintenance. (See also Caplow,

1964 (stability, integration, voluntarism); Katz and Kahn, 1966;

1978 (morale, public image, customer satisfaction, etc.); Miller

and Rice, 1967; Price, 1968 (productivity, conformity, morale,

adaptiveness); Mott, 1972 (productivity, flexibility, adaptability);

Duncan, 1973 (goal attainment, integration, adaptation); Gibson

et al., 1973 (long-run survival); Negandhi and Reiman, 1973 (optimal

balance between technical and social subsystems); Webb, 1974

(cohesion, efficiency, adaptability, support).)

The list grows and there have been precious few attempts to weed

out the overlap between studies and get down to core variables.

Also, researchers differ in the way in which they define,

operationalize and measure what ostensibly is the same construct.

Steers (1977) found that out of seventeen studies on O.E. ten of

them measured 'adaptability' as an aspect of effectiveness. However,

each of these studies tended to differ in their mode of measurement.

In addition, researchers are often unclear and/or differ as to whether

they define their criteria of O.E. as ends or means to an end.

For example, organizational adaptability might be treated as a facet

of the construct called O.E. or it could be considered as a means

by which effectiveness is attained. Clearly, whether a measure is

considered a means or an end involves value judgements on the part

of the theorist whilst formulating his assumptions but theorists

have not often been explicit enough about these assumptions. However,

the issue is only of minor consequence as it is perfectly legitimate

to argue that a characteristic is both a facet of effectiveness

and a determinant of it. This is because circular reasoning is

problematic only in an Aristotelian logic of linear causality but

not in mutual or cybernetic causality (Maruyama, 1976). Also

there are some time-honoured precedents for using the same property

both to define a concept and to describe its behaviour. For example,

Dalton used the observation that chemical elements combine only in

fixed proportions both to define and to state a property of chemical

compounds (Kuhn, 1970). Nonetheless, as Campbell (1977) notes

rather wryly, it would be nice to have some explicit overall

hierarchical map of how the criteria fit together in terms of

their generality-specificity and means-end relationships.

Yet another criticism levelled at most organismic systems

theories of O.E. is that they have reified the behaviour of

individuals and people into a 'non-existent', omnipotent

organization (Silverman, 1970). Reification in this sense means

the attribution of concrete reality, particularly the power of

thought and action to social constructs; to the objectification of

subjective, human process to external forces distanced from the

acts of people and individuals. Some partial recognition of this

criticism has been made in the latter organismic theories of O.E.

The work of Georgiou (1973), Simon (1964) and Tinker (1975) draws

heavily on the work of Barnard (1938) in their conceptualizations

of an organizational goal and their definitions of O.E. Tinker's

work also relies on cybernetic models of organizations and like

Hayes' work (1977) shows the influence of contingency theories of

management accounting. Collectively, this body of work may be

termed a participant-satisfaction model of organizations and O.E.

The central idea of this approach is that an organization is an artefact set up within society by particular sectors of that society for the satisfaction of certain human needs. The organization is not some reified system that exists to pursue its own ends. It exists ultimately for the satisfaction of the needs of both its 'internal and external' interest groups. This functional perspective argues that organizations, like any other creation of humans exist not within but because of human needs which they have a comparative advantage in fulfilling. (See Lowe and McInnes, 1971; Lowe and Tinker, 1976; Pfeffer and Salancik, 1978.)

The argument is illustrated in Diagram 2.3. The existence of an organization depends on its ability to manage the relationship between internal participant needs and those if its environment and external participant groups. The term substantial environment is used to delineate those aspects of an organization's environment which more closely affect its functioning. This is to distinguish its environment from more general influences (general environment). The interaction between these two sets feeds back through time to influence subsequent needs and interaction patterns. (See Lowe and Soo, 1980.)

An early proponent of this approach was Barnard (1938) who defined 'efficiency' as the aggregate satisfaction of individual, subjective purposes for co-operation. 'Efficiency' reflected the ability of a system to maintain itself by returning human satisfaction in sufficient degree to induce continued participant co-operation. Within this notion of 'efficiency' Barnard implied that satisfactions among different participants need to be balanced

feedback loop through time

Internal Participant
needs of system

External Participant
needs and the
substantial environment
of the system

Organizational
viability
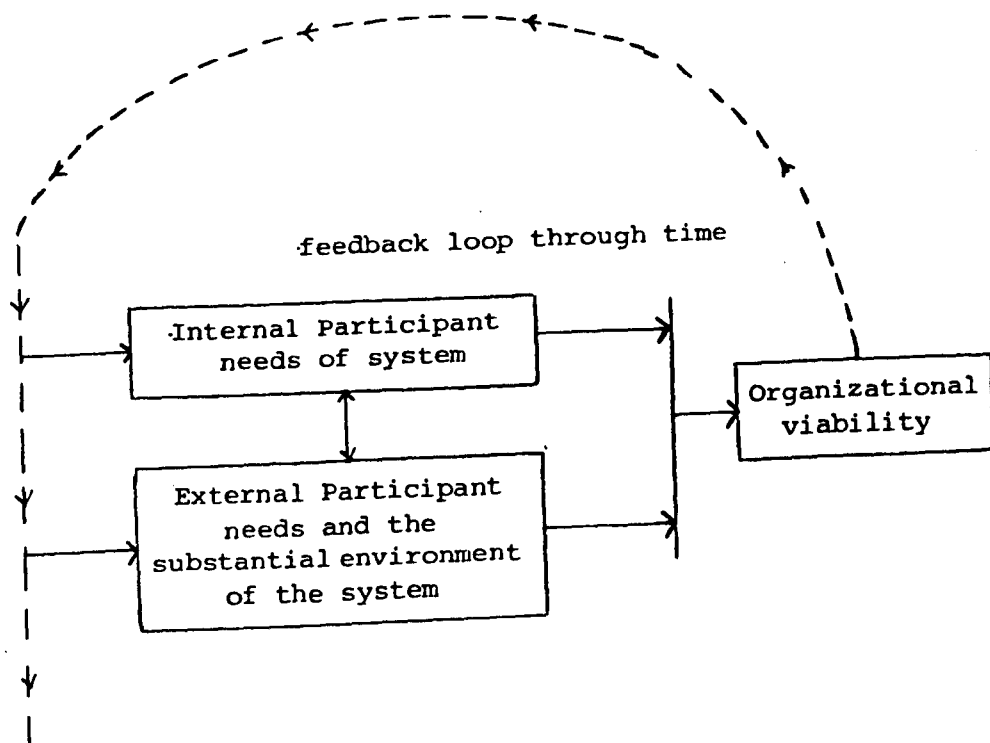
Diagram 2.3: Determinants of the Long-run Survival of a System

Resources
(e.g. labour,
raw materials,
capital)

Operative Goals
(e.g. Services,
manufacturing)

General objectives
(e.g. profit, service)

Satisfaction of Participants
(e.g. employee, customer,
investor, etc.)

contributions

inducements
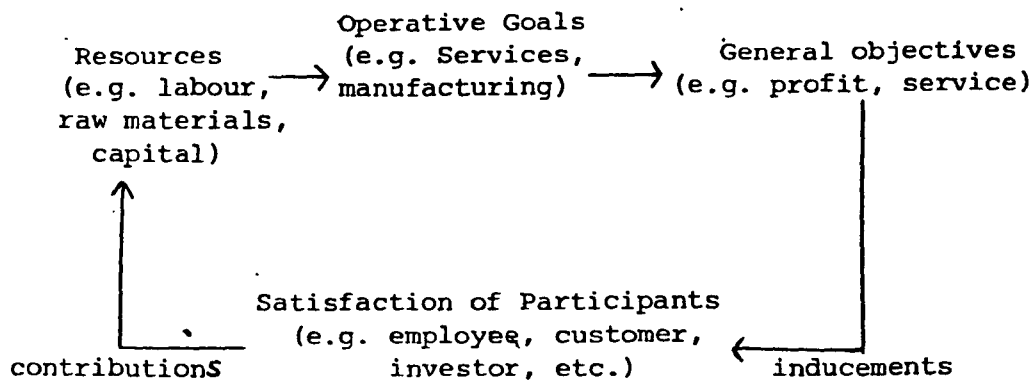
Diagram 2.4: The Participant-Satisfaction Model of O.E.

if the organization is to be viable. Simon (1964) also developed ·
the notion that an organization being a coalition of diverse
participant groups with diverse interests had to satisfy a variety
of constraints and demands. An organizational goal was, therefore,
comprised of a set of feasible constraints which when met satisfied
participant groups enough to ensure that they continued to provide
their necessary support towards ensuring that appropriate activities
were carried out. The participant-satisfaction model of O.E. may be
represented by the following diagram which shows their linkage to
the goal models of O.E. that have been discussed (Diagram 2.4).

Such a model argued normatively that organizations ought to
satisfy their participant needs in order to survive. An extension
of these ideas has been made by Tinker (1975) and Lowe and Tinker
(1977). Firstly, they argue that, as in Diagram 2.3, participants
may be conceptualized as requiring a minimum level of inducements
(which reflects their opportunity cost and their set of needs)
before they join an organizational coalition. In exchange for this
adequate level of inducements, each member then contributes to the
organizational process 'qualities' that are necessary for the
organization's 'need-satisfying' activities. The participant
contributions may be regarded as 'factors' and the inducements
offered to him as products. Thus, the organizational coalition
transforms a diverse range of contributions into 'need-satisfiers'.
(See Tinker, 1975; Simon, 1947.) These ideas are further
illustrated in Diagram 2.5 shown on the next page.

Secondly, it is argued that societies differ in terms of the
range of choice permitted to individuals and groups in satisfying
their needs. This determines the range of alternative employments

	STOCKHOLDERS	MANAGEMENT	LABOUR	CUSTOMERS	SUPPLIERS	TOTAL: ORGANIZATIONAL VIABILITY
CONTRIBUTIONS OR FACTORS	Funds, loyalty, control risk-sharing	Mental and physical effort ideas, values, beliefs, attitudes	Mental and physical effort, values, beliefs, attitudes	Revenue, loyalty, means of marketing products	Finished goods, raw materials, loyalty, reliability, regularity	Sums of system inputs
	TRANSFORMATION PROCESS					
INDUCEMENTS OR PRODUCTS	Dividends, capital worth, growth, security, prestige	Status, power salary, personal and job satisfaction	Wages, job satisfaction, comradeship, control of production	Physical and psychic satisfaction of needs	Payments, prestige, growth and profits of their own organisations	Sums of system outputs

Diagram 2.5: <u>The Organization as a Transformer of Contributions</u>

<u>into Inducements</u>

or organizational coalitions which these individuals or groups could join; which in turn affects the level of 'need-satisfying' activity required on the part of an organization. It is postulated that in order for an organization to survive and be viable there is a minimum need-satisfaction level that is defined in terms of the total set of all members' opportunity cost of participation. This minimum need satisfaction level may also be termed the minimum viability level since, below that, the organization as such does not exist. In economic opportunity cost terms it may be defined as 'the minimum compensation (or sacrifice) to maintain each and every factor in its present employment in the long-run'. If an organization operates above this minimum, it enjoys a comparative which is relative to the best alternatives available to coalition members.

These considerations give rise to a weak optimality condition which is in terms of meeting these opportunity cost constraints of participants such that the organization survives. However, if each and every factor is willing to carry on as it now is in the long-run it may be defined more strongly as an optimal solution. These ideas are illustrated in Diagram 2.6. The organization is viewed as a coalition of different groups with varying interests and preferences. Participants are classified operationally as belonging to a specific interest group, when in general, they make similar demands and contribute similar resources. That is, participants within a particular group would have similar expectations regarding organizational benefits and similar criteria for evaluating organizational utility. Each segment represents the needs and preferences of

each group (e.g. shareholders, management) and hence the alternative strategies which are favoured. The shaded intersection space represents the set of alternatives which are acceptable and 'good enough' for all participant groups. This set is termed the F-set (feasible-set).

In order to survive now and in the future, the organization must induce a point in the F-set. In the context of such a model effectiveness is related to an organization's relative ability over time in satisfying the needs of its various participant groups in such a manner that organizational survival and satisfaction of the whole may be a continuing expectation. Note that the substantial environment in Diagram 2.6 has been elaborated and examples of possible external interest groups are given such as overseas competitors, government legislation, trade unions, etc.

The work of Tinker and Lowe and Tinker are dealt with in detail here because their functional approach with its emphasis on holistic analysis and its normative stress on the satisfaction of a feasible set of participant needs is potentially useful in developing an adequate theory of O.E. A brief discussion of what is deemed an adequate theory of social processes and structure will be presented in chapters 4 and 5.

The F-set is based on a technical interest, concerned as it is to investigate, predict and control an external reality which is seen from the standpoint of the observer analyst. It seeks to develop a general theory of O.E. that is applicable to organizations in general irrespective of the prevailing societal context. Such a concern stresses the vital role of developing knowledge that is

overseas competition

Customers

Shareholders

environmental
lobby

regulatory
bodies

employees

management

national
trade
unions

government
legislation

substantial environment

general
environment
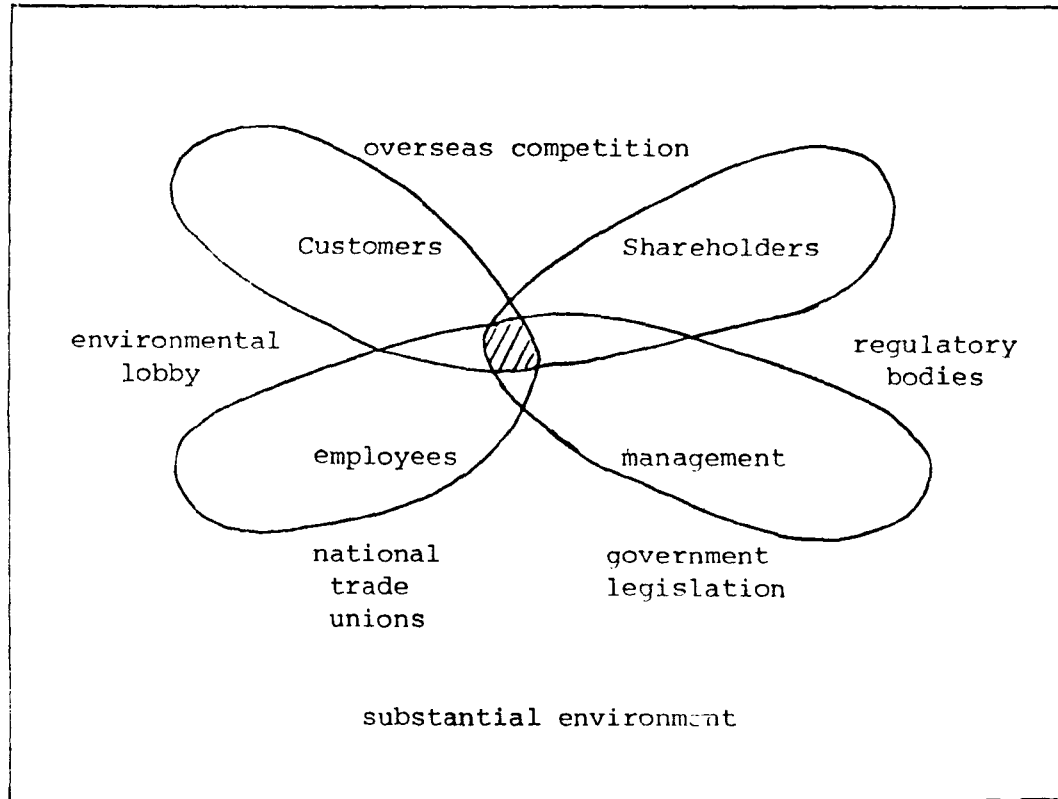
Diagram 2.6:   The F-Set of Alternatives - An Optimality Condition

universally applicable in enabling man to manage each other and
nature in order to keep within the narrow bandwidths of survival
(Wiener, 1950).

It offers an explanation of a participant group's desire to
join and remain within an organization. In common with theories
within a functionalist matrix the notion of the F-set attempts
to provide an explanation of why the social fabric of a micro-
organization holds together. It is geared to providing an
explanation of the regulated nature of human affairs, of the
reasons and necessities for social order. However, implicit within
its framework are also the embryonic strands of a normative
theory of O.E. that analyses a participant group's decision to
produce and act in a meaningful way. As March and Simon (1958)
argue, these two sets of decisions underlie the structure and
behaviour of micro-organizations.

In addition, its reliance on systems and cybernetic concepts
ensures that analyses will be concentrated on the organization as
a complex whole with interacting sub-systems; it is felt that
general systems theory is of vital importance in the study of
complex wholes. Lastly, in developing the ideas of the F-set
within a technical level of interest an opportunity is thereby
provided whereby the insights from a participant satisfaction
model may be synthesized with detailed analyses of systematic
imperatives.

For these reasons, chapter 8 attempts to build upon the F-set
ideas to develop a theory of O.E. that is located within the
functionalist matrix. Later in the thesis, the implications and
limitations of such a theory will be discussed.

Before leaving this section a brief word will be made on
Hayes' (1977) attempt to develop a contingency theory of
management accounting that sought to measure departmental effect-
iveness. Like Solomons (1965) Hayes did not embark on a clear
definition of organizational effectiveness; unlike welfare
economists or management development practitioners, his concern
was with the individual department within an organization. Hayes
hypothesized that departmental effectiveness was dependent on three
major contingencies: the sub-units - environment relationships,
the relationships amongst sub-units and the level of inter-
dependence amongst them. These contingencies were themselves
reflected in criteria of sub-unit assessment and included measures
such as productivity, work group cohesion (internal), reliability,
flexibility (interdependency) and share of market, environmental
stability (environmental).

Hayes' work clearly did not address the issue of O.E. nor did
he develop in detail his derivation of measures of effectiveness
which were problematic in that they were identical to his
contingent constructs, i.e. to the means of achieving
effectiveness. Further, his work and results have been extensively
criticised by Tiessen and Waterhouse (1978) who show that the use
of a factor analytic methodology gives rise to problems in
interpretation and comparison. Theoretically his theory of
effectiveness is loosely linked to systems theory via
contingency theory and hence is subject to the issues already
discussed. Nevertheless, it is one of the few major empirical
accounting studies on the assessment of effectiveness and uses
a contingency framework. However, it has not yielded fresh

insights into the O.E. problem.

2.8   Peripheral Functionalist Approaches to O.E.

We move on to review the work of Weick and his contribution
to the study of organizations and O.E. Weick's theory of
organizations (1967, 1979) departs from the conventional view of
organizations as concrete realities capable of goal-directed,
'rational' behaviour. As pointed out earlier, to Weick, the
organization is not an object, a thing but a series of interlinked
organizing processes. The organization environment is, in part,
enacted by the organization itself, not just given in a
predetermined, independent variable sense. For Weick realities
are always socially constructed and communication and language
are important processes for study. Weick, in fact, draws heavily
on the works of Bateson (1972) and other theorists working in an
interpretative matrix. However, Weick is not a theorist in
this paradigm. As Burrell and Morgan (1979) point out it is easy
for functional theorists who have a subjective view of reality
to be equated with ethnomethodologists, phenomenologists or
symbolic interactionists. But whilst these theorists often make
reference to the work of phenomenologists and ethnomethodologists
they do not follow the full implications of the latter's point
of view. Functional, subjectivistic theorists like Weick do tend
to retain the standpoint of the observer, albeit an informed
observer. Interpretative theorists on the other hand are
primarily concerned with the understanding of the subjective
experience of individuals; their theories are constructed from
the standpoint of the individual actor. Further they reject the
view that the world of human affairs can be studied in the

manner of the natural sciences but there is little indication in Weick's work that he totally rejects these methods. More importantly, Weick is concerned with understanding, predicting and hence controlling organizational life. Emphasis is merely placed upon the importance of developing scientific explanations enriched by individual, participant interpretations of social reality; whereas interpretative theories are concerned per se with a study of the ways in which social reality is meaningfully constructed and ordered from the point of view of the actors involved. This bias of Weick's is seen in his definition of O.E. Weick (1977) describes the concept constructively, i.e. by defining the finished or effective product by listing the rules for producing it, just as a recipe defines a cake (Pondy, 1977). This is contrasted with ostensive definitions (characteristic of organismic systems models) which describe properties of the finished product. He argues that an effective organization is (1) garrulous; (2) clumsy; (3) superstitious; (4) hypocritical; (5) monstrous; (6) octopoid; (7) wandering and (8) grouchy.

As Pondy (1977) points out his definition has an implicit emphasis on organizations as creative, problem-solving systems that need to maintain an optimal level of adaptability, flexibility and stability in order to survive in the long-run. Ultimately Weick refers to the systems biological metaphor of long-run adaptability and survival for his theory of O.E. (Pondy, 1977). There are even indications of the population ecology approach (Aldrich, 1979; Hannan and Freeman, 1977) in his suggestion for the study of a collection of organizations as opposed to individual organizations. For these reasons Weick is

placed on the borders of the functionalist matrix. His theory

of O.E., however, borrows a systems metaphor and hence is more

holistic-oriented whilst being implicitly prescriptive.

This same functional, subjectivistic approach is true of

the work of Checkland (1972, 1979a, 1979b, 1981) who advocates

a 'soft' systems methodology as opposed to 'hard' systems methods

which impose an externally defined goal on micro-organizations.

As discussed earlier, the organismic model of systems has been

subjected to widespread criticism. In addition, systems theory

has been accused of being ideological, of maintaining the status

quo by emphasizing organizations as essentially co-operative

systems tending towards equilibrium. Checkland (1981) has tried

to counter these criticisms by using systems ideas only in a

process of inquiry, "an exploration of the meanings which men

attribute to what they observe". His soft systems methodology

starts with a stage of analysis that is deliberately undertaken

in non-systemic forms with the analyst familiarizing himself

with the rich, complexity of the situation being studied. Next,

multiple 'root definitions' which reflect different 'world

views' are exposed. One is recommended - Checkland suggests that

this root definition should be acceptable and revealing to those

involved in the problem situation, although little guidance is

given concerning how this might be achieved. The third stage of

the methodology involves the formulation of a conceptual model of

the system being studied by constructing the minimum necessary

system that achieves the root definition and validating this

system by comparing with the data gathered in the analysis stage.

Checkland's approach, like Weick, emphasizes the importance
of arriving at actors' definitions of the situation but maintains
the observer who attempts to relate what they observe to what
they regard as important elements in a wider social context
(Otley, 1981). It avoids the imputation of pre-defined purposes
to organizations but keeps the concept of goal-oriented behaviour
to derive propositions for administering organizations. These
assumptions justify Checkland being classified within the
functionalist matrix though his work clearly has interpretative
overtones. This is in contradiction with Checkland's own
estimate. He himself (1981) places it within the functionalist,
interpretative and radical humanist paradigm. This represents
a failure to understand in depth that these different paradigms
reflect essentially different assumptions which are not found
within his methodology.

Useful though soft systems methodology may be, it has a major
drawback in that it does not provide any theoretical basis for
the study of O.E. and organizational control; indeed it
discounts the possibility of such general theories, arguing that
each problem situation is unique and must be treated within its
particular context. Such a contention raises the issue of how a
methodology is to be evaluated, for different methodologists
will produce different recommendations for action. Indeed,
different analysts, attempting to implement the soft systems
approach, will produce different conceptual models and different
recommendations for action. As a methodology is a means to an
end the appropriateness of a particular methodology can be
assessed, given sufficient time, by the contributions that it

makes to that end. But whereas the contribution a methodology has made to the theoretical development of a discipline can be assessed (albeit with difficulty), the contribution made by a methodology designed to handle supposedly unique situations cannot be assessed. This is an important issue, and one which does not appear to have been discussed by those involved with the methodology, save for a mention that confidence in a methodology can be built only by using it to solve problems.

In spite of the difficulties with both these approaches to O.E. their emphasis on the actors' subjective definitions of their situations is welcomed and does, at least, represent an attempt to counteract the authoritarian imposition of rationality by earlier systems analysts.

Before we conclude this review, it is important to note, as did Burrell and Morgan (1979) that systems theory per se does not require an organismic or mechanistic analogy. As mentioned, the factional and catastrophic models, in fact, belie an attachment to matrices of analysis which are concerned with explaining change and conflict in human affairs. Systems theory is, therefore, not intrinsically linked to any specific view of social reality, except insofar as it implies a social world characterized by some form of order and regularity. Systems theory is about the principle of organization, of analyzing complex wholes. It represents perhaps the major way forward in studying human collectivities with close interdependencies.

One of the central problems facing the systems analyst is that of choosing an analogy which reflects the basic nature of the phenomena to be investigated. The naive selection of a

particular type of analogy to represent a system in advance of
a detailed analysis of its structure and mode of operation is not
systems analysis. Analysts must, therefore, avoid the uncritical
use of analogies which may not explain and reflect the behaviour
under study.

2.9   Conclusion on Functionalist Approaches to O.E.

Our review shows clearly that there has been much research
within maintstream empirical theory on the issue of O.E. This is
illustrated in the diagram below with the respective studies
placed on the two dimensions discussed.

The predominance of the functionalist emphasis is regrettable
and this thesis argues that such a monopoly has stunted growth
in the area of O.E. The next few chapters will outline in detail
the derivations and limitations of each paradigm and argue that
the way forward for social analysis is a dialectic that integrates
insights from a variety of paradigms.

	Implicitly prescriptive "descriptive"	Explicitly prescriptive "Normative"
Parochial	Official goal model: evaluation research dominant coalition model.	Classical neo-economics Shareholders' view of the firm Becker and Neuhauser's theory of property rights of owners Classical utilitarianism Social justice theory of O.E.
	Soft systems Methodology Weick's ————— Multiple Theory of Constituency Theory Organizations (e.g. Connelly et al.) ———— Social Reponsibility Accounting	Systems Models (Mechanistic; organismic; participant satisfaction)
Holistic	Operative Goal Model	Systems Resource Model

Diagram 2.7: Functionalist Theories of O.E. Reviewed

Chapter 3: Subject Matrices, Subject Makers
and Modes of Study

3.0 Introduction

This chapter begins by arguing that accounting is a social science
in the sense that it is a study of human behaviour. As such, the debates
and critiques of a certain (positivistic, functionalist) mode of social
inquiry are as relevant to accounting and organization theory as to
sociology or politics. This chapter then briefly outlines the main
strands of the critique on mainstream social theory (of which accounting
is a constitutive constituent). It also explicates the various
classifications of social knowledge which have been the source of much
debate: that of Burrell and Morgan (1979) and Laughlin et al (1981).

It will be argued that these different alternatives to main-
stream theory or different disciplinary matrices are in part explained
by the predominance of subject makers with particular psychological
types.

The purposes of this chapter are to show (a) that mainstream
social and accounting theory has proved increasingly inadequate for the
task of studying human action, (b) that there are a variety of perspec-
tives which stress different aspects of social reality, and (c) that
these different perspectives may be partially explained by the notion
of different subject makers with various psychological types.

3.1 Accounting as a Social Study of Man

Accounting tends to be interpreted by other social scientists and
by mainstream accountants themselves as a neutral, objective technology
for computing numbers. Accounting, so it appears, has little to do
with men and ethical choice; its main concern is the calculation of
certain types of taken-for-granted numbers which seem 'commonsense'
and 'necessary'. Tinker et al (1982) show that from the early years of
the 20th century, accounting theorists have sought to be objective.

Such sentiments are echoed today by the AAA's (1971) suggestion that in developing non-financial measures of effectiveness, accountants could only hope to measure "events" or "effects" rather than "effectiveness."

But as the emerging pockets of radical accounting show (discussed in detail in Chp. 13), accounting cannot be divorced from the questions of societal choice. Within organizations and society accounting systems perpetuate an economic rationality which emphasizes marginalist theories of value which place the subjective utility of consumers as being the most important determinant of value. In Chp. 13 we argue that this mode of calculus is rooted in an individualistic, machine-image of man and tends to benefit the possessors of capital while neglecting relatively the value of productive labour. It is this image of man as a disciplined, trained unit of production which underlies the theory of standard costing and work-study management.

These kinds of assumptions clearly influence man's definition of what is value and what is not, what can be measured and what cannot and what may be defined as efficient, effective behaviour. They influence how we shall allocate scarce resources to what type of production of which type of goods and services. Although the profession argues that accountants do not value, they merely record costs; this is an understatement of the effects of accounting numbers. For accountants value when they participate in the budgeting process and set standards for 'reasonable' expenditure and production expectations. They value and assess the contribution of each individual worker, manager and department. They manage by exception and place certain forms of visibility on certain types of variances. Accounting thus mediates between social classes and helps legitimate the claims of particular sectors of society to wealth accumulation and thereby helps construct the social reality around us.

Given the importance of accounting to organizational and social
life it may properly be regarded as part of that complex of human
sciences which study man and his relation to other men. Indeed it
seems strange to have to argue this point, when the writer stems from
an accounting background developed at Sheffield; where it has long
been argued and accepted that accounting essentially acts as a social
mediator.

3.2   A Statement of Mainstream Empirical Theory

Criticisms of mainstream social theory have come from a variety
of sources with a multitude of labels. Attacks have been directed at
'functionalism', 'structural functionalism', 'positivism', 'logical
positivism', 'naturalism' and 'empiricism'. We do not intend to define
each of these targets and the reader is referred to competent analyses
by Wolin (1968), Ryan (1972), Bernstein (1976), Clegg and Dunkerley
(1980), and Burrell and Morgan (1979). We present only a brief summary
of mainstream social theory and the main criticisms of it.

At the core of this perception of social reality is the conviction
that the aim of the social sciences is the same as that of the natural
sciences. Collecting and referring data, discovering correlations, and
formulating testable empirical generalisations. There should also be
the growth of testable and well-confirmed theories which explain
phenomena by showing how they can be derived in non-trivial ways from
our theoretical assumptions. At the heart of scientific explanations
there must be discovery of and appeal to universal laws.

This framework has fostered a distinctive attitude toward the
history of the social sciences. Past theories , so it is claimed are useful
insofar as they provide clues for the future,they are not of substantive
content. Correspondingly there is a suspicion of qualitative, soft data.
Indeed, the boldest positivist, aware of pre-Enlightenment dangers

claims that any knowledge which cannot be formulated into
hypothetical-deductive systems of scientific explanation are
meaningless and non-scientific.

The empirical researcher, it is felt must also be able to
cultivate an objective, disinterested attitude when investigating
social and political phenomena. His job as a theorist is to
interpret the world, not to change it; he interprets it by offering
and testing theoretical explanations against observables. He
believes that if one is seriously interested in changing the world,
this can best be accomplished through scientific knowledge -
especially neutral, objective knowledge of the probable
consequences of different courses of action. Therefore, he makes a
distinction between 'theory' and 'practice'. Theory and
experimentation are to be clearly separated from the forms of
activity in which we consciously apply our theoretical knowledge to
the solution of technical problems of society.

Finally, as Bernstein (1976) observes:

> "a sophisticated defender of mainstream social
> science........can admit and even study, the
> ways in which values affect the selection of
> problems in social research.......can even
> acknowledge that social science research cannot
> proceed very far without making use of
> "characterising" value judgements.....(B)ut none of
> these admissions lessens or compromises the one
> basic sense in which there is a categorial
> distinction between fact and value". (p44-45,
> Bernstein, 1976)

Mainstream social scientists, therefore, seek to describe and explain
phenomena as accurately as he can. Knowing how easy it is to let
one's biases distort the description of social phenomena, the
theorist must always make a conscious effort to be value-free and
to submit his hypothetical claims to public discussion and testing,
and ought to abandon any claims which have been refuted according

to the canons of scientific research. The social theorist in a broad sense seeks to describe facts. His task is not to make prescriptive claims about what ought to be done. Empirical theory, e.g. positive economics must, therefore, be clearly distinguished from normative theory, e.g. welfare economics.

In fact, mainstream social theorists often adopt an ambivalent attitude to normative theory. On the one hand, there is an insistence on a distinction, but on the other hand there is widespread scepticism about the very possibility and 'validity' of a normative theory. To them values, unlike facts are not amenable to rational argument and adjudication. Easton, for example, argues:

> ".....Although we can say that the aspect of a
> proposition referring to a fact can be true or
> false, it is meaningless to characterise the value
> aspect of a proposition in this way." (p221, Easton, 1967)

This view of the epistemological differences between normative theory and empirical theory has vital implications for the study of social reality and indeed provides the springboard for much of the current critique.

But before we embark on a critique, we would like to point out positive contributions which this intellectual orientation towards the study of social phenomena has made; there are great virtues in these traditions which cannot be lightly dismissed. At their best, they have insisted upon clarity and rigour. They have been committed to the ideal of public and intersubjective tests and ·criticisms in which any knowledge claim is recognised as falliable and subject to further inquiry. There has been a healthy scepticism toward unbridled speculation and murky obscurantist thought. They have sought to achieve, if not succeeded in achieving the

Enlightenment ideal that the advancement of science, and of
scientific knowledge of social and human phenomena, must bring
progress toward ideals and social goals accepted by rational,
reasonable human beings.

3.3   The Critique of Mainstream, Empirical Theory

> "The history of thought and culture is, as
> Hegel showed with great brilliance, a changing
> pattern of great liberating ideas which
> inevitably turn into suffocating straitjackets,
> and so stimulate their own destruction by new
> emancipating, and at the same time, enslaving
> conceptions. The first step to understanding
> of men is the bringing to consciousness of the
> model or models that dominate and penetrate
> their thought and action. Like all attempts to
> make men aware of the categories in which they
> think, it is a difficult and sometimes painful
> activity, likely to produce deeply disquieting
> results". (p 19 , Berlin, 1962)

The above passage eloquently captures the essence of criticisms
levelled at mainstream approaches to social inquiry. Contemporary
positivist and empiricist modes of thought have tended to harden
into extreme positions which instead of being great liberating
ideas have become suffocating straitjackets. Our critique begins
where our statement of mainstream theory ended - with the
distinction between empirical and normative theory.

To establish conclusively the claim about the paucity of well-
formulated, empirical theories which offer a functional explanation
of social phenomena is beyond the scope of this thesis. However,
Rudner (1966), who strongly defends a naturalistic interpretation
of the social sciences has the following to say about functionalism:

> "Not a single one of the myriad claims in
> anthropological literature (and Rudner would
> also include organizational literature) can be
> accepted without serious qualification - not because
> it is, in principle, impossible to achieve functional
> explanation (here we are in agreement with Rudner),

> but rather because it is too difficult,
> much more difficult than the claimants appear
> to realise. All too frequently these claims
> may be counted at most containing some more
> or less accurate descriptions, rather than
> explanations, of specific phenomena, couched in
> or accompanied by rhetoric that may be mistaken
> for explanations by the unwary....... The results
> produced to date must be seen to amount only (so
> far as explanation is concerned) to the articulation
> of some prescientific hunches or pious hopes that a
> functional explanation for the item in question can
> ultimately be given". (p108-109, Rudner, 1966)

Similarly, Smelser (1969) honestly perceived that much of his

earlier work lacked explanatory power - for unless we can

indicate some of the causal connections among the several stages

of a temporal sequence we have but a generalised description, not

an explanation of a historical sequence.

With the rise of linguistic philosophy, social scientists

became increasingly aware of the ideological biases in

"descriptive" theories. Ryan (1970) caustically notes that

Merton's notion of function served no useful purpose except to

indicate unlooked for goodness of the consequences of much social

life in America. This led to articles like 'Some Social Functions

of Ignorance' which turn out to be articles on 'Some Unthought

of Good Effects that Ignorance produces for Almost Everyone'.

Function became, therefore, a value-laden concept, being

synonymous with good effects or good consequences. Many showed

that it was logically impossible to arrive at completely value-

free theories of social phenomena. As Berlin (1962) stressed:

> "men's beliefs in the sphere of conduct are
> part of their conception of themselves and
> others as human beings; and this conception
> in its turn, whether conscious or not, it is
> intrinsic to their picture of the world".
> (p13, Berlin, 1962)

Human beings are <u>self-interpretative</u> beings. The beliefs which they have about themselves and others are not simply subjective states in their minds; they are <u>constitutive</u> of the actions, practices and institutions that make up social and organizational life. Researchers, like all human beings, are dominated by one or more models of what the world is like. They socially construct the world they see and values influence their interpretation of data. Hence, the categorical distinction between 'fact' and 'value' actually misrepresents human action. Human action is such that what we take to be an action, and even its proper description, is internally related to the interpretations that are intrinsically constitutive of it. The description and identification of human action is "shot through with evaluation". In the last chapter we have shown how 'operative' goal models of O.E. which support to describe goal-seeking behaviour were in fact conservative supports for the status quo. To merely stop by saying: "Organization X gains profit by paying low wages", is to imply that it is sensible for this organization to do so as long as protest is minimal. The ethics underlying such a strategy, it is implied are beyond question.

Another consequence of the realisation that human action and perception is constituted by the interpretations of human agents is the blurring of the distinction between subjective and objective phenomena. There is no longer a realm of basic, uninterpreted hard facts that serves as the foundation for all empirical knowledge. "Facts" are historically conditioned, they reveal only one among the many different possibilities that human action can take. Further "facts" represent norms, rule-following behaviour that is embedded within a form of life (Winch, 1964), within structures of the life-world

(Schutz, 1967). In order to describe, explain and understand human action, we need to elucidate the variety of forms of life which characterise a particular collectivity. It is no longer tenable to maintain a categorical distinction between subjective and objective domains of experience.

The role of the observer also changes. No longer is he interpreting objective 'hard' facts in an external reality. Instead, he needs to explicate the meanings and interpretations used by actors in particular social contexts with particular values and norms.

Lastly, mainstream social theory has been attacked not only for being value-laden but for adopting the value premises of powerful classes in society. Krupp (1961), Wolin (1968) and Allen (1975) argue that contemporary organizational theory and by implication management accounting adopt a 'managerial' definition of social reality: organizations are conceived either as equilibrium-seeking systems or as essentially co-operative systems; action not geared towards organizational goals is labelled 'dysfunctional' or 'irrational'. In accounting, this bias was initially reflected in a shareholder theory of the firm whereby accounting reports are constructed solely for the benefit of shareholders. Today, although there have been some concrete efforts made to produce corporate social responsibility reports and employee reports, the fundamental bias of external financial reports is towards the interests of capital-holders and investors. Similarly, much of the work in budgetary control reflects the neo-human relations tendency to construct uncritical theories of motivation and budgeting that humanise organizational life without questioning the fundamental relations of wealth and authority.

The growing lack of confidence in mainstream social conceptual-isations of reality culminated in the 1960's in a proliferation of alternative theories of social behaviour. We shall take a brief look at these in the next section.

3.4   Burrell and Morgan's Framework of Sociological "Paradigms"

Thus far, we have sketched the main points of criticism of mainstream social, organizational and accounting theory. We turn now to attempts that have been made to classify and systematise the alternatives offered to mainstream theory.

Burrell and Morgan (1979) have developed a framework of 2 dimensions. These dimensions give rise to four paradigms (Kuhn, 1970) which are defined as "universally recognised scientific achievements that for a time provide model problems and solutions to a community of practitioners". Each of these "paradigms" is characterised by a common set of assumptions which underwrite the frame of reference, mode of theorising and modus operandi of the social theorist located within it. The four paradigms are entitled:functionalist, inter-pretive, radical humanist and radical structuralist.

Their work argues a comprehensive case for a notion that there are radically different perspectives for theorising about social behaviour and action. The same argument is advanced by Bernstein (1976) who outlines in scrupulous detail the phenomenological alternative and critical theory. In general, Bernstein's analysis is superior to that of Burrell and Morgan in terms of depth and careful argument, though he did not attempt to analyse the causal differences between the alternatives he outlined.

Our argument here is that Burrell and Morgan's classification, though useful in highlighting alternatives, provides an inadequate explanation for the existence of these different perspectives.

To begin with a minor issue, their use of the term 'paradigm' is ill-justified. Kuhn's use of the term has been shown to reveal ambiguities and these have not been resolved or discussed in detail by Burrell and Morgan. The disciplinary matrices which Burrell and Morgan describe resemble more the succession of schools rather than the pattern of conjecture and refutation found in the natural sciences.

Burrell and Morgan also do not justify convincingly the choice of their two dimensions. How are these dimensions derived? Why are they important? Do they form a necessary and sufficient classification? Are they empirically contingent properties that somehow 'arise' from an examination of the literature? If so, what were the criteria for their choice of relevant literature? If these dimensions are not empirical properties, then are they transcendental a priori categories which apply universally to all theories of social behaviour? The authors do not clarify the ambiguous epistemological status of their classificatory dimensions.

Further, it could be argued that their assumptions about society are essentially assumptions about human beings and their collective nature. But such assumptions also arise in the other dimension about science. It is also unclear why the ontological assumption about the existence of the social world is an assumption about the nature of science and not of society. Thus their ideas are useful but weak.

3.5 **Subject Makers: their Modes of Inquiry and their Relationship**
    to Subject Matrices

We shall argue here that these different perspectives, subject matrices, alternative views of reality or different ways of knowing

are a partial function of the perceivers of this reality. That is,
the shape and content of a subject is partly determined by the
psychological make-up of its subject makers. It must be emphasized
that we acknowledge the following argument to be but a partial
explanation insofar as historical, cultural, political and economic
conditions influence and mould both subjects and subject makers.

Indeed, in Chapters 11, 12 and 13 we seek to analyse the
complex of individual and sociological forces which moulded the
development of particular forms of accounting and nursing knowledge
and the structure of the respective monopolies. Human behaviour does
not take place in an individual vacuum, it has a societal context.
Individual constructs or psychological preferences are changed and
translated through social processes and via social interaction with
other men. An individual does not construct his reality on his own,
he uses social concepts and ideas from other men. Why then have we
developed a classification of subject makers and their relation to
subjects? Why have we spoken so much of holism but employed partial
modes of analysis? Are we being inconsistent?

The contradiction and inconsistency is resolved when we clarify that
our classification of subject makers is an analytical tool that
enables us to see the necessity of the integration of social
knowledge and the importance of integrated theory. This thesis is based
on the argument of holism and order in the social science of man
and on holistic forms of analysis. Our image of man is that of a
holistic being who relates, as a part-whole, to other men. Koestler
(1967) uses the term "social holon" to refer to this Janus-effect of
social wholes, which are simultaneously wholes at a particular
resolution level but also parts at a different level. Psychoanalysis
argues that man may display a variety of personas, a variety of
responses which differ depending on psychological and social

conditions. But man must also displays an integrative mechanism, a holistic psyche which links and orders diverse sets of behaviour. There is a deep-seated, vague, intangible but extant sense of order in man's behaviour which undergirds and traverses his contradictions and his deviations. Man acts as a whole and reacts as a whole. Even certificated forms of 'madness' or of 'irrationality' may have within their structure forms of unity which we are not aware of; irrationality and rationality may not be the separate concepts we think they are but a holistic notion which we do not perceive. And just as there is a sense of unity in the human psyche so the study of man must possess a similar sense of unity. Just as integration underlies the individual psychology, so an integrated form of social analysis is required in order that we may understand ourselves. It is because we believe in the part-wholeness of man that we argue for an integrated form of knowledge about man. Thus, far from being inconsistent, our classification of subject makers is an analytical tool which is developed to demonstrate the unity which ought to pervade the social science of man. It is not put forward as a complete explanation of empirical events; nor are we down-playing the importance of social, historical forces. Rather we are attempting to make visible the analogue between man as a being and the social study of man. Just as he is an integrated being, so our modes of study need to be integrated.

Much of the argument is found in an unpublished paper by Laughlin et al. (1981) and I shall use that as a basis of argument. Our first point is that man's perceptions of reality are restricted psychologically and technically. They are restricted psychologically because our thought processes - the initial starting point for a perception of reality - are limited by our psychological makeup. Such a

psychological makeup is not only 'bounded' by our cognitive ability

(Simon, 1976) but also by our self-created, cognitive or incognitive,

filtering systems. They are restricted technically because as soon

as we, as human beings, attempt to express ourselves through word or

figures (public language) some of the intricate thought processes

which such language attempts to capture is lost. However, this in its

own way, given the 'publicness' of public language is also traceable

to the perceptual qualities of the perceiver of this information,

which are, in turn, a function of psychological makeup. Thus, if we

can understand the psychological type of the perceiver we have the

independent variable in an explanatory chain which will help us to put

in context the ways in which subject makers perceive their social reality.

Diagram 3.1 attempts to depict these various relationships. What

Diagram 3.1 shows is given in theory a defined domain of reality, due

to **psychological and technical restrictions** of the perceiver such a

full appreciation of all facets will be limited to only the shaded area.

What then are these psychological restrictions and how do they produce

different perceptions of reality?

Jung has some very valuable insights for answering these questions.

He (1968, 1971) argues that the human psyche has four basic functions

and these functions (thinking, intuition, feeling and sensation) are

constitutionally present in every individual and are related in continua

and cross continua as depicted in Diagram 3.2. As can be seen, thinking

and feeling are the evaluatory functions (ways to reach decisions)

and are on one continuum. This is because both are used for evaluation

although each continuum end uses different machinery: true-false

on the thinking and a pleasant-unpleasant on the feeling dimension.

Likewise sensation and intuition are the perceptual functions

(ways to take in information) and are on the same continuum but at

either end because:

THOUGHT PROCESSES

PUBLIC
LANGUAGE

REALITY

POSTULATED
PERCEIVED
REALITY
DOMAIN
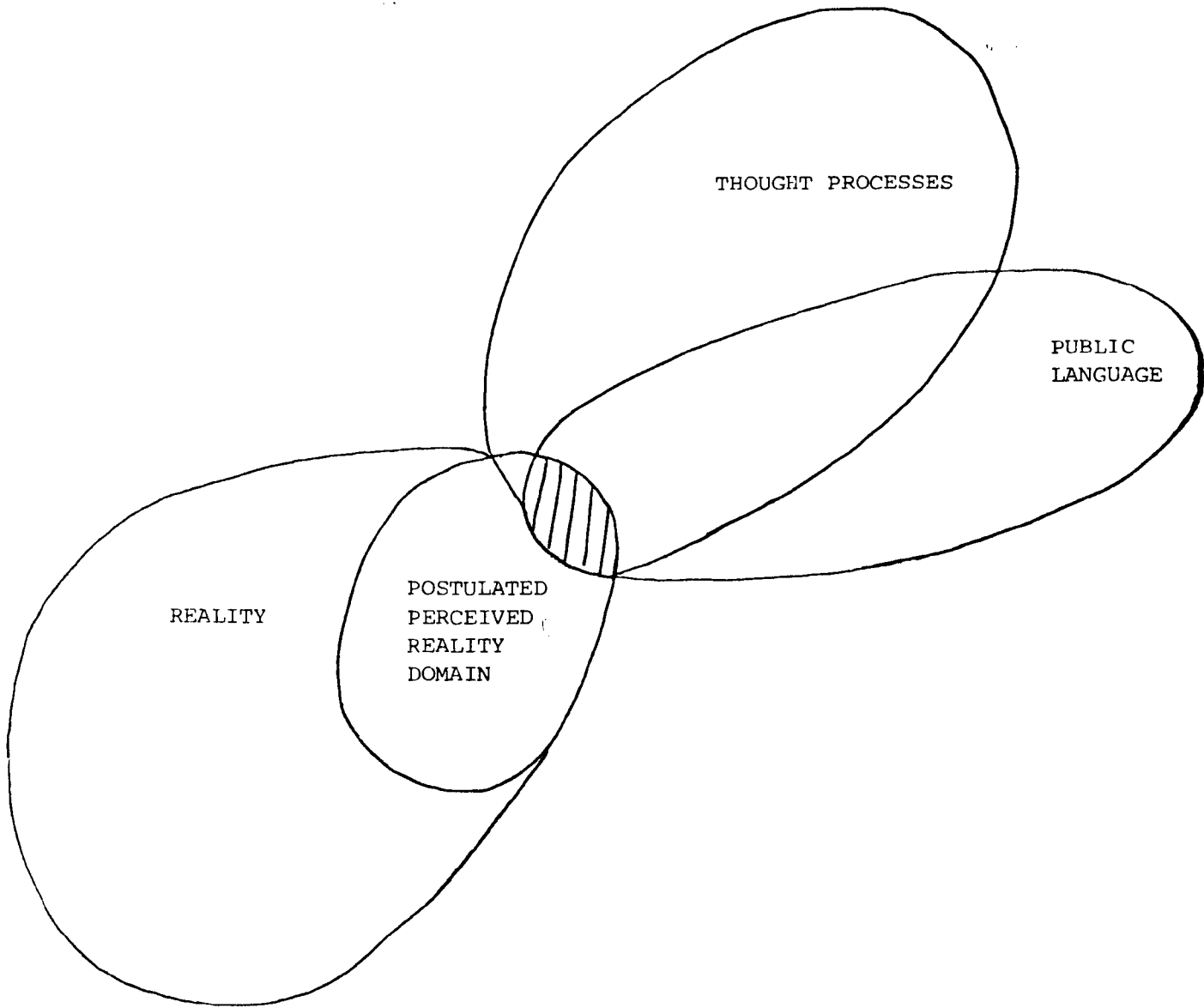
Diagram 3.1 : Psychological and Technical Restrictions on

Perceivers' Perception of Reality

EVALUTORY FUNCTIONS
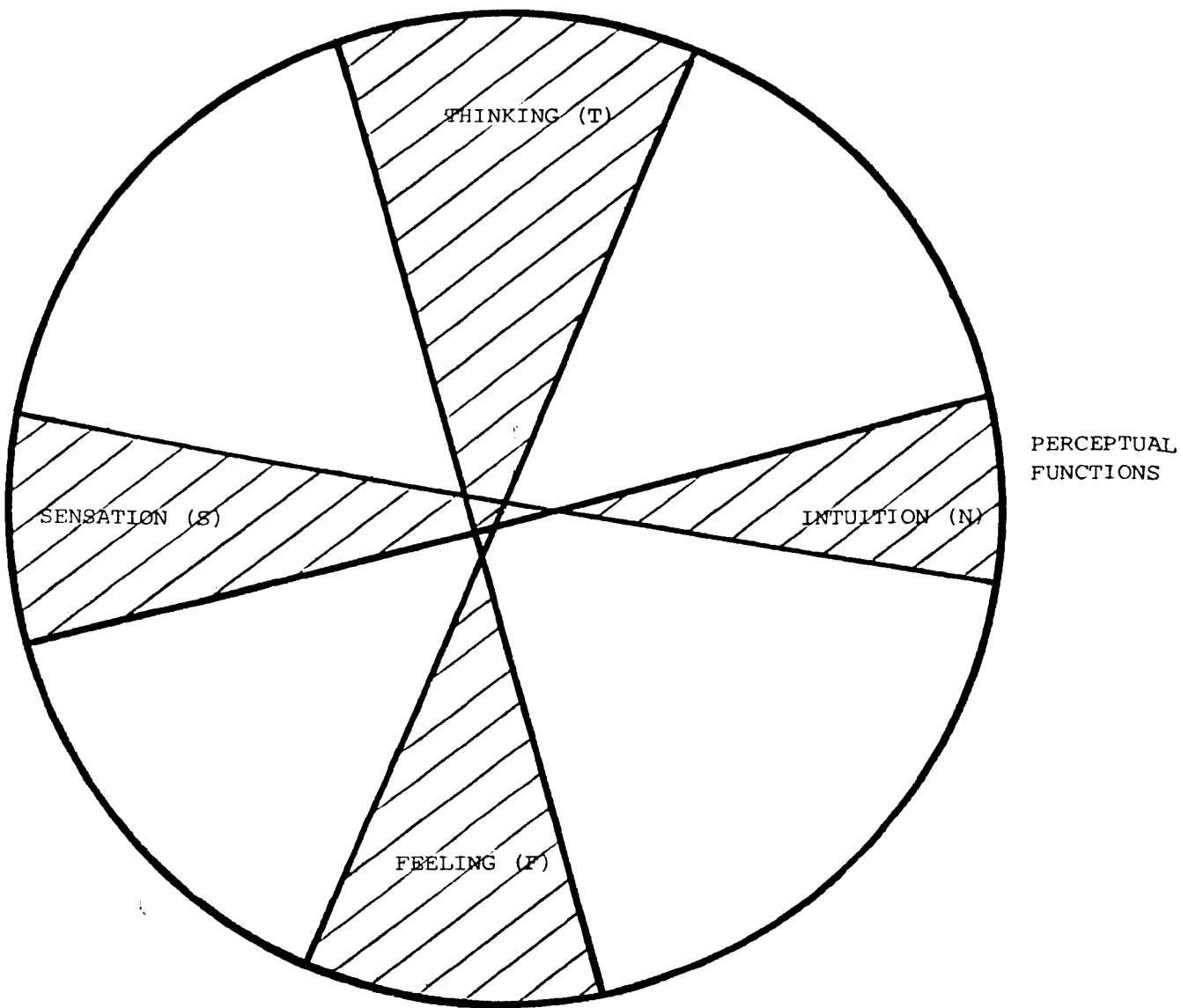
Diagram 3.2: Basic Functions of the Human Psyche

> "Sensation perceives things as they are and not
> otherwise. It is the sense of reality, par
> excellence..... Intuition also 'perceives'
> but less through the conscious apparatus of the
> senses than through its capacity for an
> unconscious inner perception of the inherent
> potentialities of things". (p12, Jacobi, 1968)

Or in other words the sensation function perceives the details

whereas the intuition function the context and global effects.

Although all these functions are constitutionally present

in each human psyche they will not be activated all at the same

time. For instance, it is not always possible to perceive a

situation by sensation and by intuition at one and the same time.

Equally it is not always possible to evaluate a situation by

thinking and feeling at the same time. One can certainly make an

evaluation by thinking initially and then test it out with one's

feelings but the two cannot work simultaneously on the same thing.

Jung argues that most individuals cannot bring into

conscious play all four functions simultaneously. On the contrary

most individuals emphasize one of the functions or more often as

not a mixture of adjacent functions. Diagram 3.3 depicts these

eight different types with the four fundamental functions in

shading due to the fact that:

> "....in actual life the function types almost
> never appear in pure form, but in a variety of
> mixed types". (p17, Jacobi, 1968)

Mitroff and Kilmann (1978) building on the Jungian framework

of the four mixed functions (NT, NF, ST and SF) from Diagram 3.3

suggest these give rise to four different types of inquirers:

the Conceptual Theorist (CT) (NT), the Conceptual Humanist (CH)

(NF), the Analytical Scientist (AS) (ST) and the Particular

Humanist (PH) (SF). Diagram 3.4 depicts these on an adaptation
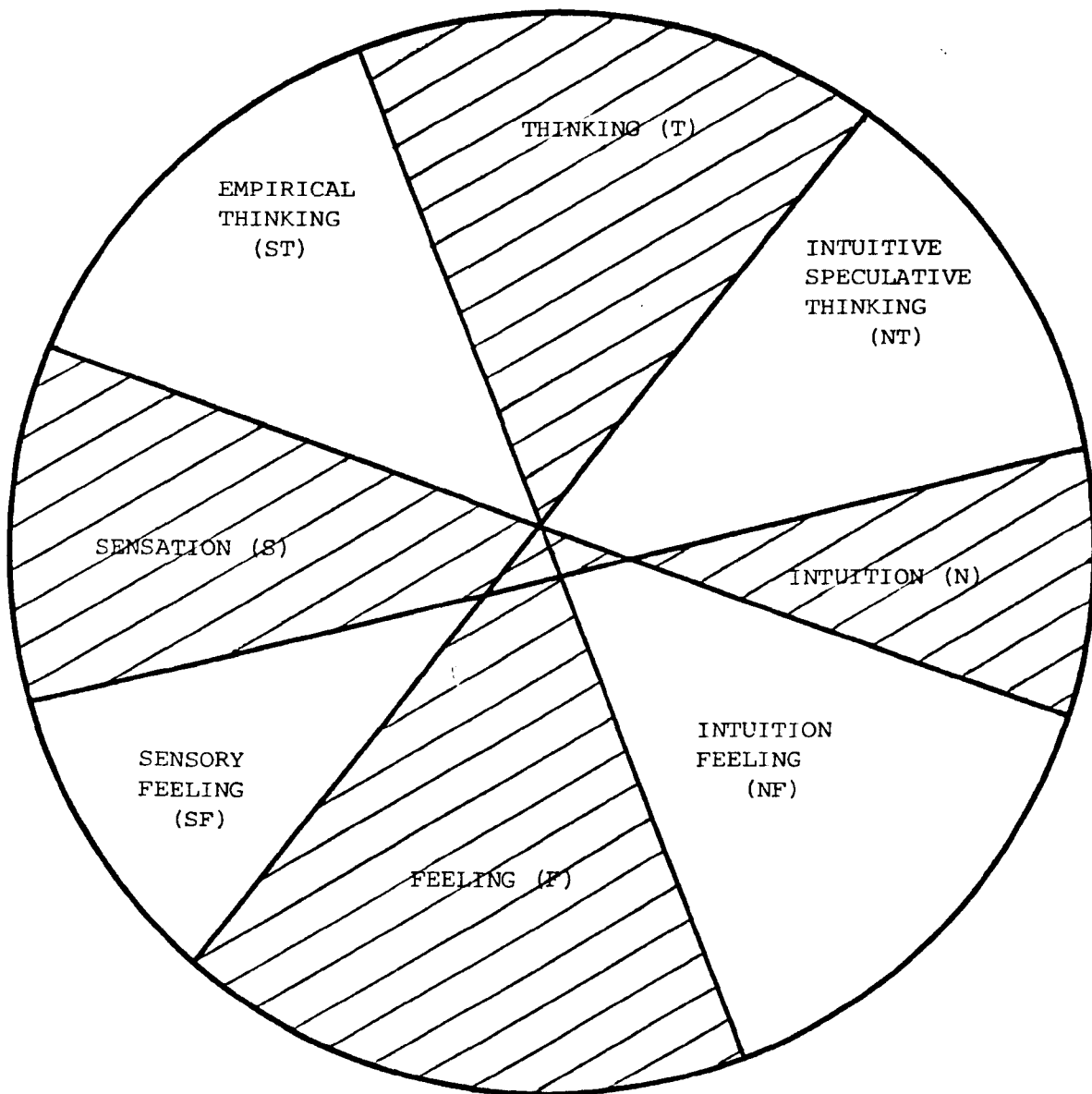
Diagram 3.3: Basic Functions of the Psyche and their

Relationships

THINKING (T)

ANALYTICAL
SCIENTIST
(AS)

CONCEPTUAL
THEORIST
(CT)

ST

NT

SENSATION ———————————————————————————— INTUITION
(S)

(N)

SF

NF

PARTICULAR
HUMANIST
(PH)

CONCEPTUAL
HUMANIST
(CH)

FEELING (F)
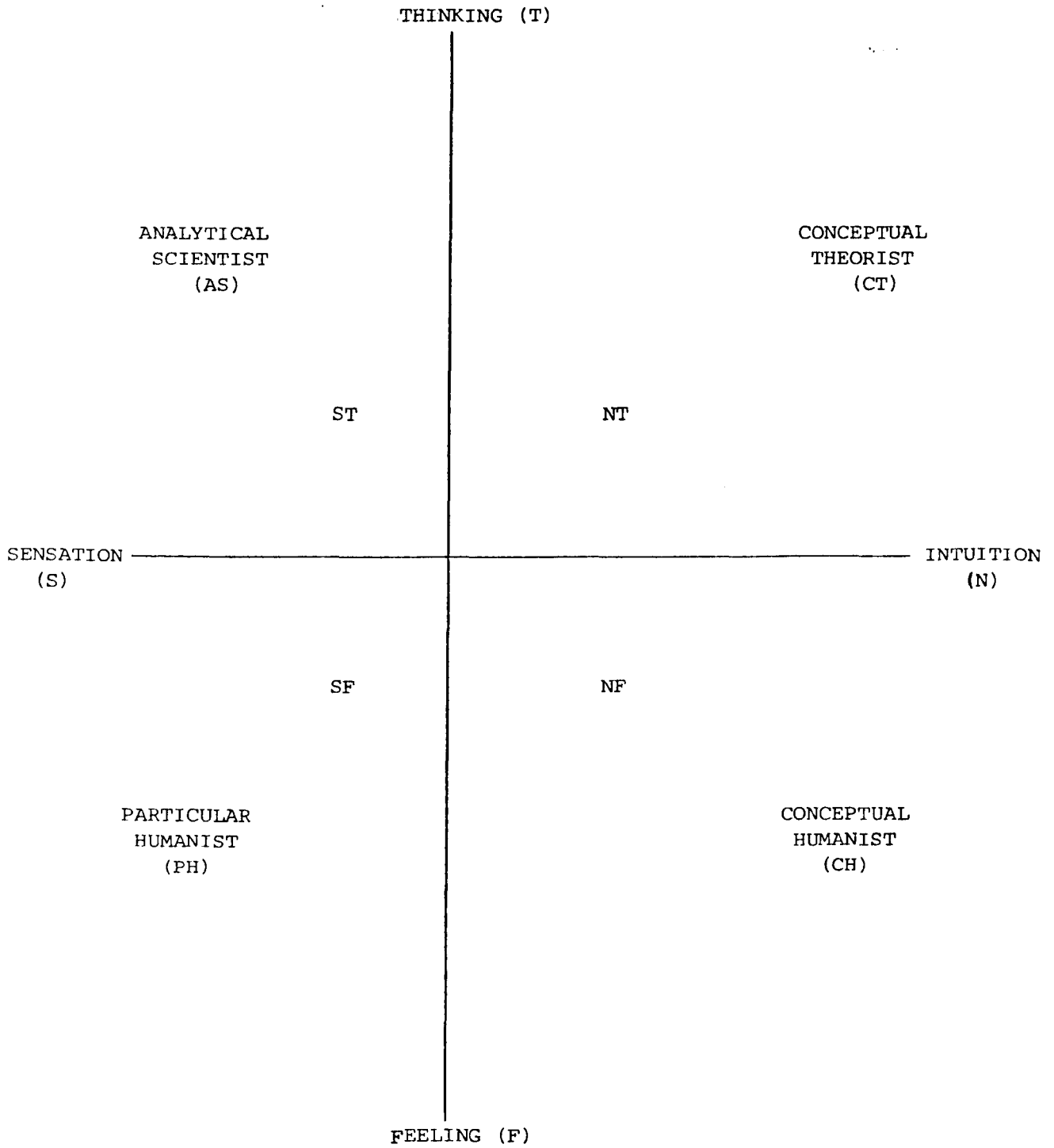
Diagram 3.4: Different Types of Inquirers from Mitroff
and Kilmann

of the diagram of the psychic functions of an individual. Mitroff
and Kilmann describe the four inquirers as follows:

(a) On the Analytical Scientist (AS):

"....the AS's basic drive is towards certainty
and the corresponding desire to eliminate or
avoid uncertainty as much as possible in regard
to knowledge and human affairs in general".

(b) On the Conceptual Theorist (CT):

"Apparently the CT is a speculative theorist
who deeply values broad-ranging novel ideas and
who does not demand that these ideas be tied
down to 'reality' in the sense of being verified
by accepted theories and facts".

(c) On the Conceptual Humanist (CH):

"The over-riding concern of the CH is not how
science, methodology and experimentation can
serve some abstract theoretical concepts of truth
per se but how they further humanity as a whole".

(d) On the Particular Humanist (PH):

".....the PH's intense concern is with capturing
and describing the uniqueness of particular
individual human beings. The PH naturally treats
every human being as though he or she were
unique - not to be compared with anyone or
anything else. Thus, the PH is not interested
in formulating general theories of human
behaviour at all - not so much because this is
impossible (although the PH argues it is
impossible) but because it is not desirable".
(p94-95, Mitroff and Kilmann, 1978)

The Analytical Scientist possessing as he does a mixture of
the thinking and sensation functions of the psyche will basically
see all problems and solutions from this perspective. He will
view all problems and solutions as singular, empirical and
requiring logical thought processes. The Conceptual Theorist,
on the other hand, possessing as he does the thinking and
intuition functions of the psyche will basically see all problems
and solutions only from this perspective. He will see issues as

multiple, conceptual and as requiring oversight and overview.
The Conceptual Humanist emulating the intuition and feeling aspects
of the psyche will invariably see all problems and solutions
from a humanitarian perspective. Finally, the Particular Humanist
possessing as he does a concentration of the sensation and feeling
functions of the psyche will see all problems and solutions as
fundamentally empirical, detailed and as requiring evaluation
from a 'feeling' perspective.

Thus, each alternative type will perceive problems and
reality in very different and distinctive ways. If we compare
our typology with that of Burrell and Morgan, there are
striking similarities. The AS corresponds well with the
functionalist, mainstream empirical school; the PH with the
phenomenological matrix; and the CH with the radical humanist
matrix. The only difference is that the CT school does not
correspond with the radical structuralist matrix, being more akin
to certain forms of mainstream beliefs. However, work discussed
within the radical structuralist perspective partake of the
characteristics of the CH inquirer and differ from the radical
humanist matrix only in terms of content emphasis (structure as
opposed to consciousness) and not in purpose. Contrary to Burrell
and Morgan's interpretation of the literature we do not see a
fundamentally different framework guiding what they label as
research within a radical structuralist mode. We, therefore,
advocate that both 'radical' matrices be seen as reflecting a CH
inquirer.

These four types of inquirers are argued in the next chapter
to be _all_ required for an integrated theory of O.E. Just as
Habermas argues that technical and hermeneutral interests are
insufficient for social science, so we argue that a single type of
inquirer or inquiring system is inadequate. Social theory _needs_
to be empirical, interpretative and critical; we require an
integration of our four types of inquirers in order that we may
understand the complex unity which underlies human action. In
contradiction to the implication of Burrell and Morgan, we argue
that social science, of which accounting is a part-whole, cannot
encompass the essence of man, if all four types of inquirer work
within their disciplinary matrices. Unless we halt our gradual
fragmentation of social knowledge and realize, like the classical
theorists, that man is a holistic, social being, we can never
understand the kinds of repression which prevent his emancipation.

Chapter 4: Alternatives to Mainstream Theory

4.0 Introduction

The last chapters have demonstrated that in spite of the inadequacies of mainstream theory and the existence of alternative models of social inquiry, theories of organizational assessment are limited to those in the mainstream framework. This chapter argues that we need to reformulate our theories of accountability so as to recognise not only the strengths and weaknesses of the AS but those of the other subject matrices. It argues that we need integrated theories of social phenomena and integrated methods of inquiry and sets out an epistemology that believes that there are rational criteria for evaluating competing constructions of reality.

4.1 A Critique of Non-Choice

Mainstream social and organizational theory have changed what were once its strengths into restrictive weaknesses. We must now turn to the alternatives offered in order to derive an integrated approach to the study of social behaviour in society and within organizations.

These statements strike a contentious note - for they argue that different philosophical perspectives or alternative conceptions of reality which are based on dissimilar ontological and epistemological assumptions are capable of evaluation and adjudication. An evaluation which is based on intersubjective standards of rationality or norms of inquiry by which we attempt to distinguish personal bias, superstition, or false beliefs from what Hegel calls *Wahrheit* (truth). Such a concept of objective choice, it is argued, must inform all forms of human inquiry, whether it be inquiry about physical or social phenomena.* For through this process we may approximate an ideal of systematic, rigorous scientific knowledge that has been publicly discussed and "tested". This concept of objective choice is, however, distinct from the notion of objectivism. The latter is an uncritical

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* The distinction between each is increasingly difficult to draw (see Ravetz, 1973).

belief in an external world of uninterpreted, hard facts that serves as

the foundation of all empirical knowledge and rules that the only form of

legitimate knowledge is a form of empirical data that is measurable, observable

and quantified. Theoretical judgments need to be made objectively (as defined)

but not objectivistically.

Such a view is not universally accepted by philosophers and practitioners.

For example, Kuhn is often quoted as arguing that the action of matrix

choice or "paradigm switch" is a matter of faith and conversion. The

implication here being that such "switches" or choices about matrices are

completely incapable of being explained rationally within the conventional

bounds of formal logic and reason. Kuhn in fact has been severely criticized

for proposing such a vision of science: a discipline that is irrational,

subjectivistic, relativistic and wherein mob rule is the name of the game.

However, Kuhn himself in 1969 claimed that he was shocked that such an

interpretation was made of his work and he drew a distinction between rational

and irrational forms of persuasion. That being said, Kuhn nevertheless

believed that such norms of rationality functioned as values which may be

differently applied individually and collectively by men who concur in

honouring them. "There is no neutral algorithm for theory choice, no

systematic decision procedure which, properly applied, must lead each individual in

the group to the same decision." (p. 200, Kuhn, 1970.) He felt that reasons apart

there was still an unaccountable element of faith in the act of "paradigm

choice". Kuhn, therefore, did not feel that competing matrices led to a

total breakdown of communication, only a partial one: in such disputes there

was always a search for common ground on which the advocates of different

"paradigms" could argue with each other. Burrell and Morgan (1979), on the

other hand, feel that these competing "paradigms" are totally incompatible

for they represent fundamentally different views of reality. Further, they

imply that one cannot adjudicate between them - there is a total breakdown

in communication. But surely such a view is a mistake - for how then can

one account for "paradigmatic" shifts? Are such acts of conversion totally irrational, completely void of reason?   How can we account for theorists who sit on the boundaries of competing matrices or Checkland's (1981) claim that his soft systems methodology encompasses three of Burrell and Morgan's four boxes? How indeed, can we account for Burrell and Morgan's own evaluative adjectives about "functionalist theory" and "interpretative sociology", adjectives which in fact belie their own preferred matrix choice? Clearly, it is not that we cannot, in principle adjudicate between competing theoretical orientations but that our theories of rationality are inadequate and fail to explicate the complex rational processes which accompany such "paradigmatic" switches. (See Bernstein, 1976; Kuhn, 1970).

Our view, therefore, is that though theory or matrix choice represents in part an act of faith, there are nevertheless intersubjective norms of rationality which distinguish "ill-founded" and "well-founded" statements. A judgment of what is "true" or "false", what is "strong" or "weak" of particular theories is possible within given norms or theories of rationality. Further, these norms of rationality are not sacrosanct but open to continual debate and criticism amongst the community of subject-makers. The dreaded Pandora's box then opens when one asks as did Weber, Kuhn and Popper, Quine, Feyerabend, Lakatos and others - what ought to be the norms of rationality for a particular domain of inquiry such as that about social phenomena? There is no simple or direct way of stating the norms of appropriate inquiry. Indeed the attempt to specify a single universal set of criteria as a basis for distinguishing what is genuinely objective from what is not, has been one of the most obsessive and futile preoccupations of modern thinkers since Descartes. But we are not, therefore, obliged - as it is often claimed when one retracks from mainstream empiricism - to retreat to scepticism, self-defeating relativism or irrational subjectivism. The difficulty of a task does not invalidate it in principle. The lesson to be learnt, rather, is how difficult and complex it is to articulate the

standards of objectivity relevant to different domains of inquiry, and the
ways in which these standards are themselves open to criticism. The debate
so far does not deny the existence, in principle, of a systematic procedure
or argumentation about the norms of rationality and about the rules of
argumentation. They merely point cautiously to the difficulties of such a
task.

The possibility of debate and in particular dialectical debate about
values and norms of rationality rescues us from a dangerous non-choice,
relativistic position as regards different perspectives. For if we puruse
this stance we would be led once again up the path of mainstream social
theory to the abyss of absolute relativism where there can be no rational
normative theory that debates the moral realm of values and that evaluates
the quality of social and organizational life. It is also not satisfactory
to stop midway up the path and argue a "social engineering" approach that
assumes that our society is peopled with enlightened men who all share the
same basic values.

4.2 The Nature of Matrix Choice

If we argue that matrix or theory evaluation is logically possible,
how shall we choose? What is the nature of this choice? What are the
criteria which underlie such theory evaluation? I shall not attempt to
mount here the Herculean task of specifying what ought to be the universal
criteria of evaluation (this is discussed in the next section) but shall
set out criteria which underlie this analysis and which are accepted by
scholars and subject-makers in a variety of disciplinary matrices.

These criteria include the need for a theory to develop a logical,
consistent argument that is simple, fruitful and has explanatory power.
It must explain the phenomena under study for the purpose of scientific
knowledge, a purpose which is espoused either explicitly or implicitly by all
four subject-makers; which is to understand and mediate the relationship
between man and his natural and social environment such that enlightened

action and thought ensues. The task of the scientist is to achieve "better" more progressive forms of knowledge and to re-form our ideas about our social and natural world.

Having stated our position let us look at the nature of matrix choice that follows an evaluation of competing perspectives. Bernstein (1976) gives a highly relevant quote from Hegel's description of *Wissenschaft*, the complete systematic scientific comprehension of what is, and *Das Natürlich Bewusstsein*, natural consciousness. Hegel argued that initially both forms of knowledge appear topsy-turvy to each other, inverted. But this is not a satisfactory moment of rest for as Hegel (1949) writes:

> "(S)cience cannot simply reject a form of knowledge which is not true, and treat this as a common view of things, and then assure us that itself is an entirely different kind of knowledge, and holds the other to be of no account at all; nor can it appeal to the fact that in this other there are presages of a better. By giving that assurance it would declare its force and value to lie in its bare existence: but the untrue knowledge appeals likewise to the fact that it is, and assures us that to it science is nothing. One barren assurance, however, is of just as much value as another." (p. 134-135, Hegel, 1949.)

While it is unclear whether one could approximate to the idea of *Wissenschaft* the passage above gives an important moral. A moral that contradicts Burrell and Morgan's (1979) belief that competing matrices are irreconcilable and their recommendation for theorists to work solely in each matrix. For the choice of a matrix is <u>not</u> an either/or choice, which it is often mistakenly taken to be. Either one has to be a pure AS or he is a watered-down, no-good renegade. Either theory must be explanatory and empirical or it is not a true theory. Either theory must be critical about the quality of social life or it is a piece of conservative ideology. Either be a CH or nothing at all. Either theory must be interpretative and be completely so, or it is meaningless, empirical claptrap. Either stand up and be counted as a PH or . . .

Such polemical rhetoric that puts up competing matrices as either-or choices are fundamentally mistaken. Bernstein (1976), drawing upon Hegel, advises us that the history of culture develops by the assertion and pursuit

of what appear to be irreconcileable conflicts and oppositions. Opposing

theoretical orientations may be conceived as "moments" in the flow of human

history which may be analysed. Further,

> "(W)e can discern in these 'moments' a pattern that reveals how we
> grasp both their 'truth' and their 'falsity'. As we work through these
> moments we learn how what is true in each of them can be integrated
> into a more comprehensive understanding that enables us to reject
> what is false, partial, one-sided, and abstract . . .. In the final
> analysis we are not confronted with exclusive choices: either empirical
> theory or interpretative theory or critical theory." (p. 235, Bernstein, 1976

Indeed an adequate social, organization and most of all accounting theory

needs to be empirical, interpretative and critical. It needs to integrate

that which is useful in each theoretical perspective.

Some justification for this proposition lies within the genesis of our

framework of subject-makers and their psychological make-up. For it

argues that in order to do justice to the richness of reality and to develop

enlightened knowledge and moral action we need the insights of all four

inquirers, all four matrices. We shall draw once again on the insights of

Jung and Mitroff and Kilmann.

Jung was, of course, concerned with the basic functions of the psyche,

indicating how far completeness or seeing life "in the round" should be

equally developed by each function. However, he went further than this to

indicate both the relative value of each of, and the interconnections between,

the four functions. Jacobi (1968) depicts these aspects in a highly symbolic

diagram which we have reproduced with slight modification in Diagram 4.1.

In Jung's view thinking (T) has the highest value and is the causal

(Insert Diagram 4.1 here)

starting point for a journey which flows into (NT), (N), (NF), (ST), (S),

(SF) and finally (F) in that directional ordering. Clearly Jung's picture

is normative in that there is no guarantee whatsoever that any one individual

can follow such a pathway for all sorts of reasons. These reasons, although

vitally important, cannot be discussed in this chapter since they require

highly complex psychological understanding and would take us too far from

THINKING

THINKING
(T)

EMPIRICAL
THINKING
(ST)

INTUITIVE
SPECULATIVE
THINKING
(NT)

SENSATION
(S)

INTUITION
(N)

SENSORY
FEELING
(SF)

INTUITION
FEELING
(NF)

FEELING
(F)
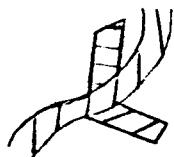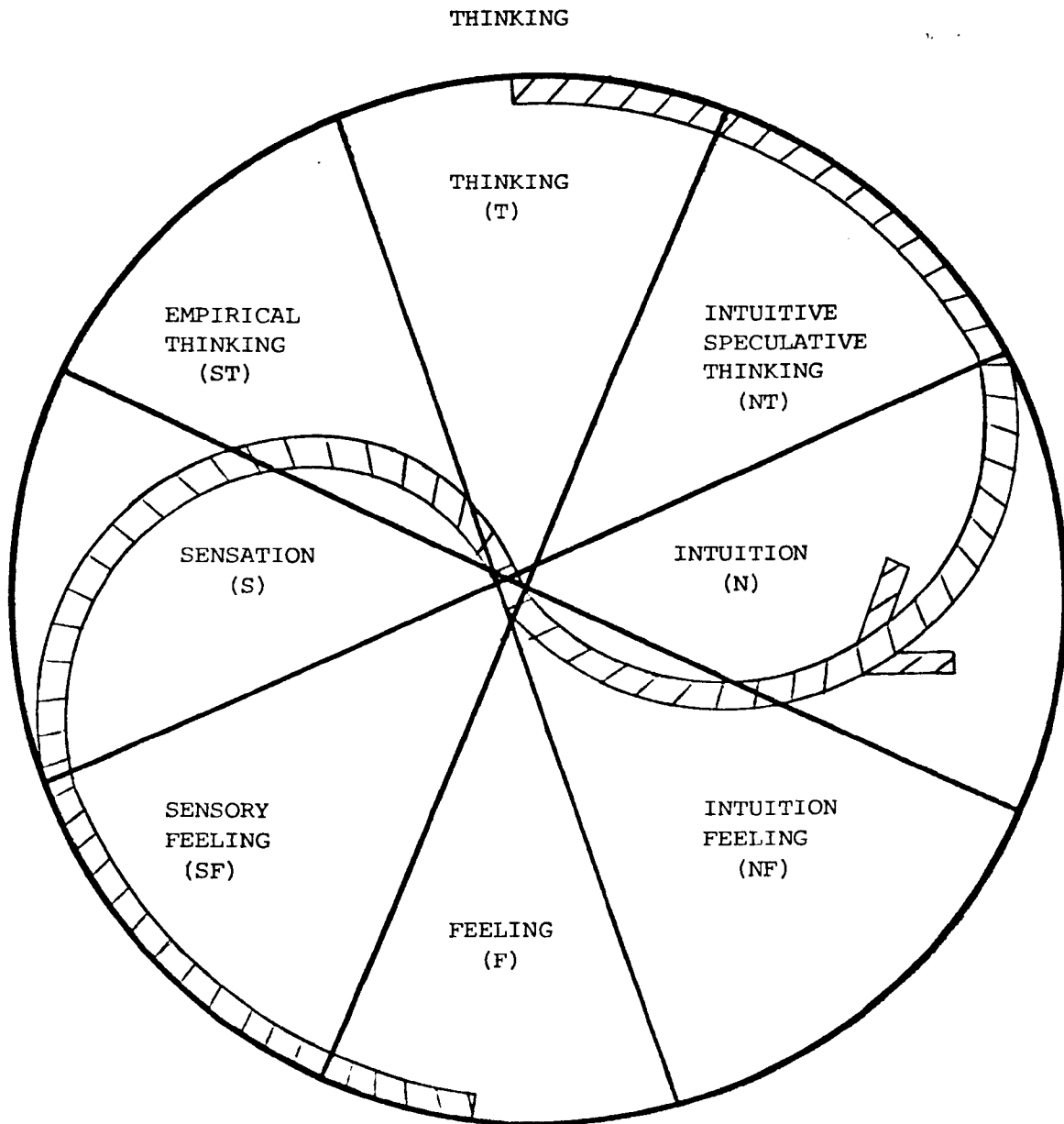
DIRECTIONAL RELATIONSHIP

Diagram 4.1:

THE VALUE OF AND DIRECTIONAL FLOW BETWEEN THE BASIC

FUNCTIONS OF THE PSYCHE FROM JUNG

(Adapted from Jacobs, 1968, p. 14)

the purpose of this section of this chapter.

Mitroff and Kilmann (1978), building on the Jungian, theory developed and applied his ideas to social science problem formulation and solution design. Diagram 4.2 presents this overview of their model with links to the inquirer who can best perform the task. The model starts from reality in terms of a sounding or "feeling of an existence of" the phenomena under study. This then moves into a vocal conceptualisation of the situation from a macro (general) perspective i.e. looking behind the seeming problem to its "real" global nature. The result of this process is a "humanised" conceptual model of the problematic with some understanding as to the nature of where a broad solution can be obtained. Such broad boundaries feed into the empirical modelling and solution stage of the process where a, or a number of, detailed specific solution model(s) are suggested. Finally having arrived at a (or a number of) technical solution(s) to highlighted problems comes the stage of implementing these in the problem situation (reality).

As can be seen from Diagram 4.2 there are feedback loops between all stages so that there can be constant retracing of steps should this be required. For instance the implementation stage may indicate that the technical solutions suggested are totally unimplementable. In such a

(Insert Diagram 4.2 here)

situation this may well require modifications in the solution and empirical model invariably, and also, on occasion, the conceptual model as well. However, as can be seen, the feedback relationships are not all in an anti-clockwise orderly sequence. The empirical model of mainstream theory can and should feedback into reality to test out its understanding. In a similar way the solution once formulated needs to be checked with the conceptual model to test out congruence.

For this overall model to actually work requires the insights of different types of inquirers working in a closely knit complementary way. As can be seen from Diagram 4.2 the conceptualisation phase needs to be conducted by the
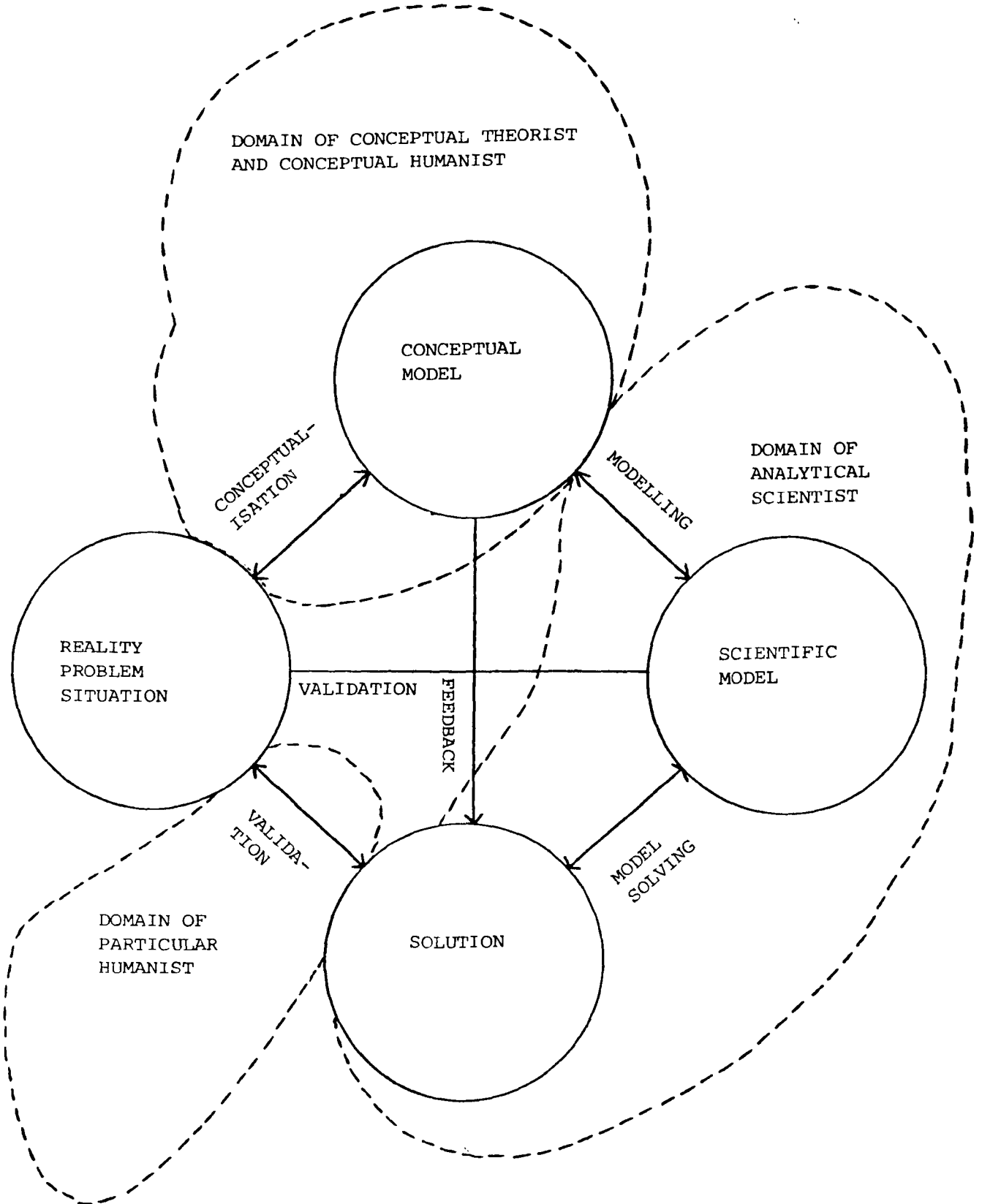
Diagram 4.2:

SOCIAL SCIENCE PROBLEM FORMULATION AND SOLUTION

DESIGN FROM MITROFF AND KILMANN, 1978

Conceptual Theorist and Conceptual Humanist (in Jung's terms this is the path from (T) through (NT) and (N) to (F). The modelling and solution phase needs to be conducted by the Analytical Scientist (in Jung's terms this is the path from (NF) through to (S)). The implementation phase needs to be conducted by the Particular Humanist (in Jung's terms this is the path from (S) through (SF) to (F).

In this way all inquirers play their own unique and important part in the problem formulation and solution design, but without any one of the stages the end result becomes the poorer. For a Conceptual Theorist or Conceptual Humanist looking at the problem situation would only see the conceptual issues missing all aspects of modelling detail and implementation issues. Likewise an Analytical Scientist would miss the conceptual and implementation stages in the problem formulation and solution design in his blind desire to see the world in a technical way. In a similar fashion a Particular Humanist would omit the conceptual and modelling stages in his great desire to smooth out the emotional difficulties obviously present in the problem situation. The important point of course is that all these insights are necessary but individually they are not sufficient to bring about truly rich solutions or to discover the complex problems which face social scientists.

The astute reader would have noticed that Mitroff and Kilmann formulated their ideas with the view to designing problem-solving models in a management science context. In Habermas's terms their ideas are in the realm of *techne* which in classical Greek referred to the skillfull production of artefacts and expert mastery of objectified tasks." In other words, their concern is guided by a technical interest: which attempts to attain "technical control over history by perfecting the administration of society." (T.P., page, 255.)

Apart from this Jungian analogy of the integrated personality, Habermas's structure of knowledge constitutive interests also argues, albeit implicitly that

theory must needs be empirical, hermeneutically grounded in the meanings of

social actors and be critical. He argued that there are three forms of

knowledge, each of which is guided by a specific interest: the empirical-

analytic sciences by a technical interest, the hermeneutical sciences by a

practical interest and the critical sciences by an emancipatory interest. Each

type of knowledge, according to Habermas, is categorially distinct from the

other and each has a specific purpose, relationship to practice and a particular

epistemology.

The empirical-analytic sciences are concerned with developing instrumental

knowledge which expands man's technical control over nature and which continually

refines the administration of human beings and their relationships to each

other by means of social organization. This form of knowledge is essentially

used for the control of the external conditions of existence and is the necessary

outcome of disturbances or disruptions in routinized intercourse with nature.

In Habermas's terms, this process of technical, instrumental inquiry:

" . . . (1) isolates the learning process from the life process.
Therefore the performance of operations is reduced to selective feedback
controls. (2) It guarantees precision and intersubjective reliability.
Therefore action assumes the abstract form of experiment mediated by
measurement procedures. (3) It systematizes the progression of knowledge.
Therefore, as many universal assumptions as possible are integrated into
theoretical connections that are as simple as possible." (p. 124,
Habermas, 1972.)

The theoretical connections which are made within this type of knowledge

have the form of hypothetico-deductive systems. Particular phenomena are

conceived in terms which allow their subsumption under hypothetically proposed

general concepts. Through the use of such concepts, knowledge is generated

which makes possible the duplication of conditions and the reproducibility of

results. Thus empirical-analytic knowledge is predictive knowledge.

"Theories comprise hypothetico-deductive connections of propositions,
which permit the deduction of lawlike hypotheses with empirical content.
The latter can be interpreted as statements about the covariance of
observable events; given a set of initial conditions, they make predictions
possible." (p. 308, Habermas, 1972.)

Theory is connected to action by means of certain operations and activities,

in particular systematic observation, experimentation, and operations of

measurement. These actions and the language required to express them objectify reality under the conditions of a "restricted mode of experience." (page 191, K.H.I.). Objects constituted as observable are at one and the same time objects whose behaviour can be described in causal laws and objects which are instrumentally manipulable. Observations or basic statements are therefore "not simple representations of fact in themselves" but rather expressions of the "success or failure of operations". (Page 308, K.H.I.). Facts are constituted through particular structures of experience and action. In the empirical-analytic sciences they are generated through an "a priori organization of our experience in the behavioural system of instrumental action." (Page 309, K.H.I.).

Natural science is clearly seen by Habermas to be knowledge with a technical interest: it is oriented toward the production of technically useful information. Although Habermas does not reduce natural science to a simple or crude instrumentation, he claims that it can be understood as oriented toward the production of knowledge which can be used for the manipulation and control of the environment. While not every study of inquiry in the natural (or behavioural) sciences need produce technically utilizable results, nor need have as a conscious interest the production of such knowledge,

> "nevertheless, with the structure of propositions (restricted progress
> concerning observable behaviour) and with the type of conditions of
> validation (initiation of the control of the results of action . . .)
> a methodical decision has been taken in advance of the technical utility
> of information. Similarly the range of possible experience is
> prejudiced, precisely the range to which hypotheses refer and upon which
> they can founder." (p. 209, Habermas, 1976a.)

Thus Habermas argues that to the extent that actions are causally produced as effects of social and natural forces beyond the knowledge and/or control of actors, it is possible to consider them in an objectified manner and to use positivistic methods of study. It is for this reason that Guess (1981) argues that empirical-analytic and critical theories differ in their logical or cognitive structure. The former are objectifying theories. This means that at least in typical cases one can distinguish clearly between the theory

and the "objects" to which the theory refers; the theory is not itself part of the object-domain it describes. Newton's theory is not itself a particle of motion. Critical theories, on the other hand, are claimed to be reflection or self-referential: a critical theory is always a part of the object-domain which it describes; critical theories are always in part about themselves. Similarly Fay (1975) argues that critical theories are somewhat at odds with positivist methods of social study. Not only do critical theories have a different aim but they have different epistemological standards, i.e. they admit of and require different kinds of confirmation. Empirical-analytic theories have as their purpose the successful manipulation and prediction of an external reality; they have instrumental use. If correct, they enable the agents who have mastered them to cope with the environment and thus pursue their chosen ends successfully. Critical theories, on the other hand, aim at emancipation and enlightenment, at making agents aware of hidden coercion thereby freeing them from that coercion and putting them in a position to determine their true interests. In addition, empirical-analytic theories require empirical confirmation through observation and experiment; critical theories are cognitively acceptable only if they survive a more complicated process of evaluation, an important part of which is a demonstration that they would be acceptable by actors who have been freed of their repression and suffering.

Not only are empirical-analytic theories different in important aspects from critical theories, so are the hermeneutical sciences which differ yet again from the other two types of knowledge. While knowledge claims of the empirical-analytic sciences "grasp reality with regard to technical control that, under specified conditions, is possible everywhere and at all times", knowledge claims in the hermeneutical sciences, Habermas holds

> "grasp interpretations of reality with regard to possible intesubjectivity of action-orienting mutual understanding specific to a given hermeneutic starting-point." (p. 195, Habermas, 1972.)

Habermas, influenced by Dilthey, Hegel and Gadamer, underscores the "fact"

that individuals and societies act within a matrix of intersubjective meanings.

These require controlled analysis and appropriation if key aspects of behaviour
- not least of which are motives, purposes and beliefs about action - are to
be understood. Through his reading of Dilthey, Habermas affirms that social
scientists must learn the language of their subject/object - they must learn
to speak the language that they interpret. In addition they must appreciate
the origins and tradition-bound nature of understanding; this means that, in
contradiction to Dilthey and in accordance with Gadamer, hermeneutics cannot
be restricted to a purely descriptive role (if such should exist) but that
texts, experiences, actions etc. have to be understood in their historical
contexts. For once the historical dimension of understanding is established
it becomes possible to transcend the surface level of intended meaning. And
to move on to a critical analysis of the deep-seated sources of ideology,
(conceived as false consciousness) domination and distortion in communication.
For language, according to Habermas, not only reveals the conditions of
social life, it conceals and:

> "Language is also a medium for domination and social power; it serves
> to legitimate relations of organized force. In so far as the legitimations
> do not articulate the power relations whose institutionalizations they
> make possible, in so far as these relations manifest themselves in the
> legitimations, language is also ideological." (p. 360, Habermas, 1977.)

Social actions, therefore, can only be fully understood, Habermas contends, in
a framework "that is constituted conjointly by language, labour and domination."
A purely interpretative science cannot grasp this. And an approach is required
that, on the one hand,

> "does not suppress the symbolic mediation of social action in favour of
> a naturalistic view of behaviour that is merely controlled by signals
> and excited by stimuli."

and on the other, does not

> "succumb to an idealism   of linguisticality and sublimate social
> processes entirely to cultural traditions." (p. 361, Habermas, 1977.)

Habermas thus views empirical-analytic knowledge as "useful" for
understanding social reality but limited in its usefulness. He recognized
that positivist philosophy had an initially liberating intent; its concern

to provide a criterion for a strict separation between science and metaphysics was motivated by a desire to dispel all dogmas - all modes of thought - that placed themselves beyond empirical test and relevant independent controls. The results of natural science were impressive and did enable the external control of the natural environment. The positivistic ideas also prevented people from accepting beliefs that were factually erroneous or from confusing normative and descriptive statements. However, Habermas argued that the positivistic notions of rationality and of acceptable knowledge were too narrow and by themselves are incapable of understanding social reality.

Nevertheless, it is important to point out that Habermas does not argue that it is never appropriate to study human subjects with the methods of a causal, nomological science. On the contrary, we would argue that Habermas indicated that whilst such knowledge was not a sufficient condition for human emancipation, it was a necessary one and that such knowledge are vital for understanding law-like behaviour and regularities in social and physical phenomena. For these reasons we argue that nomological knowledge of the kind which is reflected in social, organizational and accounting knowledge is not totally and intrinsically ideological. By failing to recognize its limitations is to succumb to error but such knowledge does enable us to study the constancies of social phenomena which are not merely products of the positivist's methodology and imagination. As Bernstein (1976) points out, social and organizational life does exhibit regularities and it is necessary to understand these to understand social life. But the significance of these regularities and observable correlations cannot wholly be understood in terms of statistical tests of significance. Statistical explanations are partial and in certain instances may be illusory but they do help to point the way towards hermeneutical and critical analyses.

Similarly, for the moment, we accept Habermas's argument that hermeneutics is vital in turning our attention to the study of social practices, forms of life, intersubjective meanings and to understand how social and organizational life

consist of "moral paradigms". Hermeneutics enables us to see what underlies and is presupposed by the study of regularities and correlations; to see how actors understand themselves and interpret what they are doing. In this way, a hermeneutical understanding helps to enrich our interpretation of the correlations or non-correlations we observe. But as Habermas argues, we need to go even further. Not only do we need theories which provide a nomological explanation of regularities, not only do we need theories which display a hermeneutical understanding of the social phenomena under study and which locate this understanding in larger, historical macro-structures of society, we need integrated, critical theories which provide a critique of contemporary social forms.

As Berlin (1962) points out the exposure of models that dominate and penetrate man's thought and action is but a first step in social inquiry. The analyst's second task is to analyse the model itself, and this commits the analyst to accepting or modifying or rejecting it, and in the last cases to provide a more adequate one in its stead. Wolin (1972) similarly argues that social theories need to be critical and to offer a critical analysis of the quality, direction, or fate of public life. They should not merely accept the present "authoritative allocation of values" in our society.

Theory and knowledge, especially that concerning social phenomena, may be and often is value-laden but this does not in itself preclude a science of social studies. Indeed, the social scientist aims to provoke moral debate about values and ethical issues. In Horkheimer's (1972) words theory should not only have a *technical* intention but a *practical*, critical purpose in radically improving human existence so that "mankind will for the first time be a conscious subject and actively determine its own way of life."

> "There is a human activity which has society itself for its object. The aim of this activity is not simply to eliminate one or another abuse, for it regards such abuses as necessarily connected with the way in which the social structure is organized. Although it itself emerges from the social structure, its purpose is not, either in its conscious intention or in its objective significance, the better functioning of any element in the structure. On the contrary, it is suspicious of the very categories of better, useful, appropriate, productive, and valuable, as these are understood in the present order, and refuses to take them as non-scientific presuppositions about which one can do nothing." (p. 206-7, Horkheimer, 1972.)

A little further on Horkheimer describes what criticism or critique

means:

"By criticism we mean that intellectual and eventually practical effort which is not satisfied to accept the prevailing ideas, actions and social conditions unthinkingly and from mere habit; effort which aims to co-ordinate the individual sides of social life with each other and with the general ideas and aims of the epoch, to deduce them, to distinguish the appearance from the essence, to examine the foundations of things, in short, really to know them." (p. 270, Horkheimer, 1972.)

This belief about the critical and practical role of social science

harks back to Aristotle's conception of politics. As Habermas (1974)

pointed out, this conceived of politics as the doctrine of the good and just

life; it was a continuation of ethics. Aristotle saw no opposition between

the constitution formulated in the *nomoi* and the ethos of civil life, that

is, the ethical character of action was not separable from custom and law.

Only the *politeia* makes the citizen capable of the good life; and he is

altogether a *zoon politikon* in the sense that he is dependent on the city,

the polis, for the realization of human nature.

This conception of the critical role of science may be contrasted with

that of Hobbes whom Habermas claims to have argued that "the engineers of

the correct order can disregard the categories of ethical social intercourse

and confine themselves to the construction of the conditions under which

human beings, just like objects within nature, will necessarily behave in a

calculable manner." (p. 43, Habermas, 1974.) However, this extreme position

has not been adopted by most AS in mainstream theory who have tended to adopt

the mid-way position and assumed that enlightened men already exist. Though

mainstream social theory makes a categorical distinction between fact and value

and confines discussion of the latter to a minimum it does not altogether dis-

regard the categories of social intercourse. Indeed even logical positivists

like Popper argue that ends are capable of rational discussion though there are

severe problems to his defense of this central claim.

We have used Habermas's structure of knowledge-constitutive interests to

argue that nomological, hermeneutical and critical insights are by themselves

partial, inadequate but necessary parts of social theory. All three forms of knowledge are required in order to construct an adequate theory of human behaviour. Below we argue in what sense a theory may be said to possess an empirical, hermeneutical and critical imperative.

But first we intend to show that the rigid distinctions which Habermas makes between the three forms of knowledge, each of which is guided by a separate, independent interest are ill-justified and unsatisfactory. Such clear distinctions between different forms of knowledge cannot, in the main be maintained. For instance, hermeneutical problems are central to all attempts to comprehend law-like regularities in natural phenomena while a knowledge of regularities and a capacity for prediction is an equally important element of most forms of interpretative knowledge.

Thus the respective forms of knowledge of these sciences cannot be adequately grasped by reference to the hypothetico-deductive model of explanation and interpretative accounts. In addition, certain forms of empirical-analytic knowledge do not have any obvious relation to technical control. As Hesse (1978) pointed out, many theories enlarge our pragmatic knowledge without necessarily forming the basis of technology. An interest in prediction is not necessarily an interest in technical control. The link between interest and form of knowledge thus appears to be in question in certain sciences and theories. As such, Habermas's rigid distinctions between forms of knowledge and their guiding interests are difficult to maintain and we argue rather that they point the way for an integrated theory of social phenomena.

Nomological knowledge is as much a part of integration as Ideologiekritik and hermeneutics. Despite the restrictive practices which positivists have grown to adopt, such forms of knowledge and the

testing of its knowledge claims via hypothetico-deductive methods is an essential facet of social theoretical construction. The difficulties arise when such partial explanations and forms of knowledge are seen to be the only legitimate forms of knowledge and when regularities are artificially constructed and reified into immutable social laws beyond the control of man when they may not be.

In addition, Habermas's definition of the role and purpose of critical theory: the emancipation and enlightenment of man's social conditions is essentially empirically-based. To be more exact, a critical theory has as its inherent empirical, practical aim the self-consciousness of a successful process of enlightenment and emancipation. In this sense the word empirical is synonymous with *praxis*, with relating to social and human reality. A critical, integrated theory is built on the explicit recognition that social theory is interconnected with social practice, such that what is to count as truth is partially determined by the specific ways in which knowledge and theory is supposed to relate to practical action. This empirical basis is also found in both empirical-analytic and hermeneutical sciences though Fay (1975) argues that this theory-practice relationship is more implicit and less well-acknowledged by practitioners in each of these fields. Indeed we would argue that this relationship of theory to practice would be the case in any model of social scientific knowledge and in this sense any theory of social phenomena has an empirical imperative and must tie its knowledge claims to the satisfaction of human purposes and desires. Social theories will necessarily be composed of, among other things, an account of how such theories are translatable into action or are to influence action. This means that the truth or falsity of any social theory will be partially determined by whether they are in fact translated into action. The primacy of the theory-practice relationship or the requirement for an empirical base in social theory is well argued by Rescher (1973) and by Habermas himself in *Knowledge and Human Interests*. It is reflected in the positivist's search for social regularities which explain,

predict and enable man to extend the narrow bandwidths of survival, in the phenomenologist's desire to explicate deep-seated subjective meanings and to facilitate communicative interaction and the critical theorist's demand that theory should emancipate man from repression and domination. It is also implicit in the epistemic principles used by each form of inter-related knowledge - all three are based on and can only be confirmed by experience. However, the experience on which a critical theory is based includes not only the sense data and observations of the positivist, the mutual meanings and understanding of the phenomenologist but the experience of self-reflection, of self-consciousness and a liberation from unnecessary coercion and frustration.

Social theory also has a hermeneutical imperative because the object/subject of study is man itself, a sentient being who interacts via language games, who actively creates and is created by the construction of a subjective reality. Human experience does not reflect fundamental organic states; rather it is formed by publicly established symbolic structures - by language. In order to develop knowledge of a socio-cultural phenomenon, the subject must, at least, penetrate the language and social context of the object. Knowledge can only be enhanced through the establishment of intersubjective understanding. As experiences, speech acts have a significance even beyond their role as carriers of meaning within systems of grammatical structures. Since ordinary language is intertwined with practice, the meanings and experiences that an interpretation attempts to grasp can be seen as part of a "stream of life". Language mediates between the finite historical nature of humankind and the world; it is the mechanism through which people can come to understand themselves and their relation to others. Thus a social science must not only be empirically based but hermeneutically grounded in intersubjective meanings.

Finally, as argued earlier, social theory demands a critical intent. It does not predict that agents in the society will adopt and use the theory to understand themselves and transform their society, rather it demands that they adopt the critique of theory, i.e. it asserts that these agents "ought"

to adopt and act on the critical aspects of theory where the "ought" is the "ought" of rationality. A theory which is informed by critique asserts of itself that it is not a matter of indifference to some group of agents. It does not merely give information about how it would be rational for agents to act if they had certain interests; it claims to inform them what interests it is rational for them to have. Habermas develops a complex theory of rationality which claims that the notion of critique, the critical imperative of theory is itself a quasi-transcendental concept which is unrelated to particular historical conditions. In the next section we elaborate his theory of universal pragmatics and his argument that critique is intrinsically anticipated in the speech acts of human beings.

4.3 Habermas's Theory of Communicative Competence and Universal Pragmatics

We have noted previously that the question of appropriate norms or criteria of rationality for all forms of inquiry has vexed many philosophers of science. "Paradigm switches" clearly involve rational processes and is not totally a matter of whim, arbitrary fiat, or irrational decision but our standard theories of rationality are not rich enough to illuminate these processes.

We present here Habermas's (1979) attempt to formulate a comprehensive theory of rationality that is concerned with what Habermas considers the primary problem of social theory today:

> "How, within a political situation, can we obtain clarification of what
> is practically necessary and at the same time objectively possible?
> This question can be translated back into our historical context: how
> can the promise of practical politics - namely, of providing practical
> orientation about what is right and just in a given situation - be
> redeemed without relinquishing, on the one hand, the rigour of scientific
> knowledge, which modern social philosophy demands in contrast to the
> practical philosophy of classicism? And on the other, how can the
> promise of social philosophy to finish an analysis of the interrelationships
> of social life, be redeemed without relinquishing the practical
> orientations of classical politics?" (p. 44, Habermas, 1974.)

His theory of universal pragmatics argues that whilst pure *theoria* cannot exist, there is nevertheless a justified normative basis on which moral,

practical, questions can be decided with reason just like technical-empirical questions. That is, a justified normative theory of rationality exists that at once acknowledges the historicality of knowledge and yet is transcendental; a cognitive ethics is, according to Habermas, possible.

For Habermas the only way to explain the particular qualities of inter-subjectively recognized norms is by recourse to the notion of a consensus based on the primary of rational criticism. What is needed is recognition of the procedures by which rationally motivated agreement is and can be attained. While no procedures exist which can guarantee a lasting consensus, or which can supply the "truth" once and for all, there are procedures, Habermas thinks, which generate good reasons to accept or reject competing knowledge and normative claims. These are located in the notion of discourse. It is Habermas's contention that the presuppositions and procedures of discourse are the basis for establishing both the truth of statements and the correctness of norms. The rationality of discourse resides in the fact that the reciprocal behavioural expectation raised to normative status afford validity of a *common* interest ascertained *without deception*. (See Habermas, 1976b; Habermas, 1979).

But how can we justify this norm of discourse which is used to justify all other norms? How can this principle of discourse be established in a non-circular way to adjudicate between competing theories of rationality? Habermas's solution is that discourse is embedded in the very nature of speech itself. As he argues in the theory of communicative competence, an analysis of "universal pragmatics" - "rules for using sentences in utterances" - discloses the "transcendental" nature of all such acts and, in particular, demonstrates that "the expectation of discoursive redemption of normative-validity claims is already contained in the structure of intersubjectivity and makes specially introduced maxims of universalization superfluous." (L.C., page 110).

Drawing from the ideas developed by, among others, Chomsky in linquistics and Austin and Searle in the theory of speech acts, Habermas argues that

"communicative competence" can be rationally constructed. A rational

reconstruction is defined by Habermas as a mode of reflection that explicates

general rules of human competency in a given area or context, for example

linguistics or cognitive developments. While reconstructions depend on

reflection, this reflection is not limited to a particular subject.

> "Rational reconstructions . . . deal with anonymous rule systems,
> which any subject whatsoever can comply with in so far as they have
> acquired the corresponding competence with respect to these rules.
> Reconstructions thus do not encompass subjectivity, within the horizons
> of which alone the experience of reflection (in the sense of self-
> criticism is possible)." (p. 22, Habermas, 1974.)

The core ideas behind the theory of communicative competence include firstly,

an examination of "the validity basis of speech"; for a successful communication

is underpinned by a rational foundation of validity claims that have a cognitive

character. Anyone acting communicatively "must raise universal validity

claims and suppose that they can be vindicated (einlösen)". There are four

different types of claims (*Geltungsansprüche*): comprehensibility,

(*Verständlichkeit*), truth (*Wahrheit*), rightness/correctness *(Richtigkeit)*

and truthfulness/sincerity *(Wahrhaftigkeit)*. In everyday interaction these

claims are usually taken for granted but the assumption is made by interacting

subjects that they could, if the background consensus is brought into disrepute,

vindicate their beliefs. That is, in everyday interaction statements are

generated about the objects of experience. These statements imply truth claims.

Experiences *support* these claims; but the truth of norms can be redeemed

only through argumentation in, respectively, a "theoretical-empirical"

discourse and "practical discourse". The former leads to a critique of knowledge

whilst the latter leads to the formation of rational critical will.

The aim of such discourse is to distinguish an *accepted* consensus - one

which is now challenged - from a *rational* consensus. It is argumentation

itself that is the basis for determining whether a consensus is rational or

not. This is not to deny that in any given instance we may be mistaken: we

may judge a consensus to be rational where further reflection and argumentation

indicate that it is not.

But what are the *criteria* for determining whether the consensus reached is a rational one? What are the criteria of argumentation itself? This question was posed earlier in section 3 but not answered. Habermas claims that there are no fixed decision procedures or explicit criteria which will definitely set off a rational consensus from one which is not; we can only recourse to argumentation itself. But argumentation requires a consensus: how else can we rationally agree about what are sound and unsound, or better and worse, moral arguments?

Habermas locates <u>not</u> the criteria for determining a rational consensus but the <u>process</u> for such determination in the notion of an ideal speech act, which lays the a priori foundation for argumentative reasoning because it is both presupposed and anticipated in <u>every</u> speech act.

> "No matter how the intersubjectivity of mutual understanding may be deformed, the *design* of an ideal speech act situation is necessarily implied in the structure of potential speech, since all speech, even intentional deception, is oriented toward the idea of truth. This idea can be analyzed with regard to a consensus achieved in unrestrained and universal discourse. Insofar as we master the means for the construction of the ideal speech situation, we can conceive the idea of truth, freedom and justice, which interpenetrate each other - although of course only as ideas. On the strength of communicative competence only, however, and independent of the empirical structures of the social system to which we belong, we are quite unable to realize the ideal speech situation, we can only anticipate it." (p. 372, Habermas, 1970a.)

The goal of discourse is hence to approximate the ideal speech situation which serves as the critical standard for the assessment of rational genuine consensus. Ideal speech is that form of discourse that requires "the suspension of the constraints of action"; there is only one acceptable motive - "the co-operative search for truth". The conditions for such a grounded consensus that is free of systematic distortions are a situation in which there is mutual understanding between participants, equal chances to select and employ speech acts, recognition of the legitimacy of each to participate in the dialogue as "an autonomous and equal partner" and where the resulting consensus is due simply to the compulsion of the argumentation.

As a variety of commentators have pointed out, such an ideal speech situation is concommitant with the good and true life. That is, it normatively

implies an ideal institutional context, an ideal form of life that would enable all participants to engage in discursive will - formation as free and equal actors (see Held (1980); McCarthy (1973)). One where objective social institutions and practices exist that not only permits but motivate free, symmetrical, unconstrained discourse, and it is through speech and discourse that such a form of life is manifested. As Bernstein (1976) points out this idea of ideal speech comes remarkably close to Pierce's understanding of the ideal community of inquirers - a parallel that Habermas readily acknowledges. Like Pierce, Habermas thinks that such an ideal is presupposed and anticipated in all inquiry.

The end result of Habermas's complex argument is that truth and virtue, facts and values, theory and practice are inseparable. The very structure of speech itself, according to Habermas, involves the anticipation of a form of life in which complete autonomy and responsibility are possible. Hence its normative foundation is, therefore, not arbitrary, but inherent in the very structure of social action which it analyses.

We have presented Habermas's argument in some detail because it is one of the most ambitious and comprehensive theories of rationality. Indeed Habermas conceives of his project as an attempt to develop a comprehensive critical theory of society with a practical intention: the self-emancipation of people from domination. Earlier we argued that social and organizational theory needs to be integrated and Habermas's work, it is contended, helps to illuminate in what sense theory can be and is required to be critical. He also presents a highly suggestive and systematic argument about the rational ad-judication of competing technical and practical claims.

4.4 Some Criticisms of Habermas's Argument

This is not to deny that Habermas's work does not still contain unresolved ambiguities, tensions and difficulties. One would hardly expect none of such an endeavour. However, our final assessment is that the heart of Habermas's arguments, despite all its flaws, enable us to reformulate an integrated

perspective on social and organizational phenomena.

Let us turn then to the criticisms of critical theory, in general, and Habermas's work in particular. Held (1980) has written a succinct reply to Marxist critics like Anderson (1976), Therborn (1977), Slater (1977), Woodiwiss (1978) and Tar (1977). To the first charge that critical theory reproduces idealist positions and is but metaphysical humanism, Held points out such a charge rests on an unfounded assumption that the influence of idealism was completely negative. Clearly, this is not the case as Marx indicated in the *Theses on Feuerback* (1970) that idealism restores insight into the "active side" of materialism. Though the work of critical theorists like Horkheimer, Adorno, Marcuse and Habermas do vary significantly from one another they all attempt to conceive human societies as "natural" and "sensuous" beings whose needs have been unfulfilled by certain forms of "ideology". To reflect on such needs is not "metaphysical humanism". Rather it is to believe that "things might be otherwise than they are", that potentialities for radical change exist. Indeed, their concept of idealism enabled the critical theorists at various points in their career to restore to the centre of Marxism some of the most radical and subversive elements of Marx's work.

The second and third areas of criticism are closely coupled and refer to the complaint that critical theory is too concerned with philosophical and theoretical problems whilst not paying sufficient attention to Marxist topics. For example, an excessive amount of time is spent on "super-structural phenomena". Again, such a charge is refuted. Firstly, critical theorists were not interested in philosophy and theory per se, but in how philosophy and theoretical formulation could illuminate practical problems. Secondly, Marxist critics tend to have a narrow view of what constitutes Marxist topics - namely, political economy and the theory and practice of Leninist (Trotskyist) politics. But the critical theorists have all acknowledged and discussed Marx's contributions to political economy. What they do contend, and this is especially true of Habermas, is that Marx's formulations were

too narrow: they failed to uncover the increasing vital role of the State,
failed to explain the lack of revolutionary consciousness in advanced Western
capitalism and ignored the ability of ideological culture and aesthetics to
preserve the capitalist mode of production. What the critics have not done
to date is to confront these arguments, instead they persist in misreading
critical theory. Althusser, for instance, in his critique of critical theory
presents the concept of "mode of production" as though the Frankfurt School
and Habermas had not even heard of the term. Thirdly, the interest of
critical theorists in history and culture is not downplaying structure. It represents
a serious attempt to examine the interplay between structure and social practices
and the manner in which this interplay explains the course of a constructed
history. Indeed, Horkheimer's critique of ideology, Adorno's use of negative
dialectics in cultural criticism, Habermas's criticisms of scientism and
hermeneutics are amongst some of the most insightful, provocative and radical
examples of social inquiry. Fourthly, critical theory is criticised for being
generally remote from working-class politics. The critical theorists were
isolated in academic settings. While this charge is true in a sense it must
be emphasized that critical theory itself has significant political implications.

> "Far from reflecting a distance from practical-political problems,
> their interest in theory and critique was directly related to an ambition
> to analyse new forms of domination, undermine ideology, enhance awareness
> of the material conditions of life circumstance, and to aid the creation
> of radical political movements." (p. 361, Held, 1980.)

Also the criticism has less force when one remembers that active participation
in day to day working class politics is not the only legitimate form of
political involvement. One of the most significant achievements of critical
theory is, in our view, to have shown that politics has a different meaning,
that there are many ways of contributing to critique, self-reflection and
the eventual emancipation of man from structural and super-structural forms
of domination.

These criticisms apart, Habermas's theory of communicative competence
is seen to pose problems. Firstly, Habermas holds that it is possible for

individuals in discourse to "step outside" of their web of everyday beliefs and commitments. This implies as Held puts it a "complete transformation of psychic states and interests". Such an expectation, so Held claims, is completely unrealistic and irrelevant for discourse, say in mathematics, is compatible with a wide range of psychological make-ups. This is certainly the case but it is argued here that when Habermas set out this requirement of a complete freedom or "suspension of constraints" he is setting out the formal requirements of an ideal speech condition. The entire theory of communicative competence is based on an ideal which Habermas freely admits is counterfactual to everyday experience. But this does not of itself undermine its significance. For as he explains it

> "The ideal speech situation is neither an empirical phenomenon nor simply a construct, but a reciprocal supposition unavoidable in discourse. This supposition can, but need not be, counterfactual; but even when counterfactual it is a fiction which is operatively effective in communication. I would, therefore, prefer to speak of an anticipation of an ideal speech situation . . .. This alone is the warrant which permits us to join to an actually attained consensus the claim of a rational consensus. At the same time it is a critical standard against which every actually realized consensus can be called into question and tested." (p. 258, Habermas, 1973.)

In other words, this ideal serves as a standard for the critique of systematically distorted communication: where it is clearly absent doubt can be cast on the genuineness of the consensus or compromise achieved and the legitimacy and authority that is derived from it. Whether or not the empirical conditions can be practically created, the self-motivation to enter into discourse (which Bernstein (1976) demands) can be instilled for the realization of this ideal of reason <u>and</u> life is a separate question. It is not one that in Habermas's opinion admits of an a priori answer.

Similarly, critics who demand that Habermas's ideal should tell them "how to change the world" has, according to Habermas confused the distinctions between theoretical and practical discourse and strategic, risky political action. Whilst a social theory that *limits* itself to a discussion of ideal conditions leaves us with a myopic vision of *praxis* and theory and practical action must complement one another, theory can never be used directly and automatically

to justify tactical action.

> "Theory cannot have the same function for the organization of action, of the political struggle, as it has for the organization of enlightenment. The practical consequences of self-reflection are changes in attitude which result from insight into causalities in the past, and indeed result of themselves. In contrast, strategic action oriented towards the future, which is prepared for in the internal discussion of groups . . . cannot be justified in the same manner by reflective knowledge." (p. 39, Habermas, 1974.)

According to Habermas the intent of critique is insight into causalities in the past and present so as to provide us with an accurate depth understanding of our historical situation. Its aim is to initiate emancipation by first initiating knowledge of the constraints upon freedom and ideal discourse via a process of critical self-reflection. However, Habermas is clear that self-reflection is a necessary but not sufficient condition for real, material freedom. Here an ambiguity arises in Habermas for he does not specify in detail what are the necessary and sufficient conditions. One can but glean from his other work that these other contingencies would include the capability and motivation for a man, individually and collectively to achieve self-reflection, the learning process within society as a whole and the *strategic* actions taken by man.

Finally, critics complain that the idea of unconstrained discourse does not aid the resolutions of disputes between competing value positions or truth claims. It is merely a regulative ideal in discourse. As Lukes (1977) puts it

> "(How does it) help us in the face of the great ideological struggles of the age, involving religious and anti-religious creeds . . . and all varieties of socialism, liberalism and conservatism? How does it help even when trying to decide between the views of, say Herbert Marcuse and John Rawls? For it is precisely the claim of such contending doctrines that each advances views which are reasonable and rational." (p. 411, Lukes, 1977.)

As Held (1980) shows this is not a criticism at a certain level for Habermas is less concerned with specific value positions as with a rational reconstruction of the possibility of discourse and the <u>process</u> whereby such adjudication may take place. But it is accepted that as presently conceived

Habermas's work does not specify in sufficient clarity the judgment of the effectiveness of discourse in the absence of an ideal form of life. Given that there is domination and asymmetry in wealth and by extension speech opportunities, how can we judge the force of a better argument? How can we be sure that even if consensus is reached in an unideal world, that it is a genuine, rational consensus, that there has been genuine self-reflection? Insofar as Habermas implicitly addresses the issue, the answer is that we are never in a position to know with absolute certainty. There is a fundamental ambiguity intrinsic to the human condition. As Bernstein (1976) so aptly puts it

> "The complexity, strength and deviousness of the forms of resistance; the inadequacy of mere 'intellectual understanding' to effect a radical transformation; the fact that any claim to enlightened understanding may itself be a deeper and subtler form of self-deception - these obstacles can never be completely discounted in our evaluation of the success or failure of critique." (p. 218-219, Bernsteine, 1976.)

In the meantime, Habermas urges for a clear-sighted critique of systematic distortions of communication, for argumentation, debate and yes, imperfect discourse amongst scholars about the limits of their models and the adequacy of alternatives.

Despite these issues we think Habermas is right when he argues that there is a relentless drive in modern societies to transform all practical questions into technical ones. And that the most practical problem of our time is to initiate a critique, a process of self-reflection about all those intellectual and material tendencies that undermine or suppress practical discourse. The role of the theorist is thus to work towards the achievement of these objective institutions in which such practical discourse can be concretely realized. (Habermas, 1970b; 1979; 1975)

Chapter 5: A Reconstruction of the Organizational

Effectiveness Issue

5.0 Introduction

The prevailing dissatisfaction with mainstream social and organizational

theory has initiated emergent theoretical alternatives which have yet to

influence in a substantial manner current research in organization theory,

"behavioural" and management accounting. Most of the work on O.E. for

example is within the mode of traditional theory. The last chapter has argued

strongly for developing an integrated theory of social and organizational

phenomena. This being a theory that is founded as far as possible on the

strengths of all four scientific inquirers, that is created by working through

these theoretical "moments" such that what is "true" in each of them can be

integrated into a more comprehensive understanding of human action. This

chapter develops the argument further by setting out the strategy for

developing an integrated theory of O.E. We work through various theoretical

perspectives and evaluate their implications for a study of O.E. We then end

with a discussion of the process of integration in formulating a theory of O.E.

5.1 An Integrated Theory of Organizational Effectiveness: The Process

What then is the nature of an empirical, hermeneutical and critical theory

of organizational accountability and what are the implications of such a theory

for the development of a critical function in the discipline of accounting? In

order that such an integrated theory might be developed it needs to be

subjected to the insights of all four inquirers. To recapitulate, Jung gave

thinking (T) the highest value and argued that the causal starting point for

an integrated individual went from (T) into (NT), (N), (NF), (ST), (S), (SF)

and finally (F). Mitroff and Kilmann (1978) interpreted this as a theory of

problem-solving which moved from a given reality domain to conceptualization,

to empirical model construction (which was based on a genuine feel of the

problem situation) and finally to the generation of numerous solutions to

the identified problem.

Our proposals for the development of an integrated theory of social phenomena is a theory that is first generated by the AS and is then shown by PH how it might be extended by the CH and CT via a process of critical self-reflection. In other words, our theory begins with a technical level of interest which is then enriched by a hermeneutical understanding of the social phenomena and leads finally to a critical self-reflection which exposes the degree of ideology and constrained consensus within a given institution and society in general. If we refer to Jung's diagram, then the process of integration goes through a figure of eight, moving from thinking (T), back to thinking or re-thinking to be more precise. (See Diagram 5.1).

Or in Habermasian terminology, this suggested model of theory re-construction may be seen as below. (See Diagram 5.2).

As can be seen from Diagram 5.1 the flow of integration is similar to the process outlined by Jung but with one vital addition - that of a feedback loop that initiates self-reflection. Indeed, it is the establishment of just such a critical facet that enables man to expose sources of domination and together with technical progress move to higher levels of knowledge. In addition, this argument begins with where most mainstream scientists are at, within the confines of traditional, mainstream theory. It then takes the social scientist through the weaknesses and strengths of this "moment" of inquiry through to a mode of self-reflection, both about the phenomena under study and the theory constructed to explain the phenomena. In this way, an integrated theory is built first on the usefulness of traditional methods in interpreting, explaining and predicting quasi-causal behaviour. It then carefully expands this social theory in a critical mode and evaluates our present structural forms in terms of their contribution to the existence of an ideal speech condition.
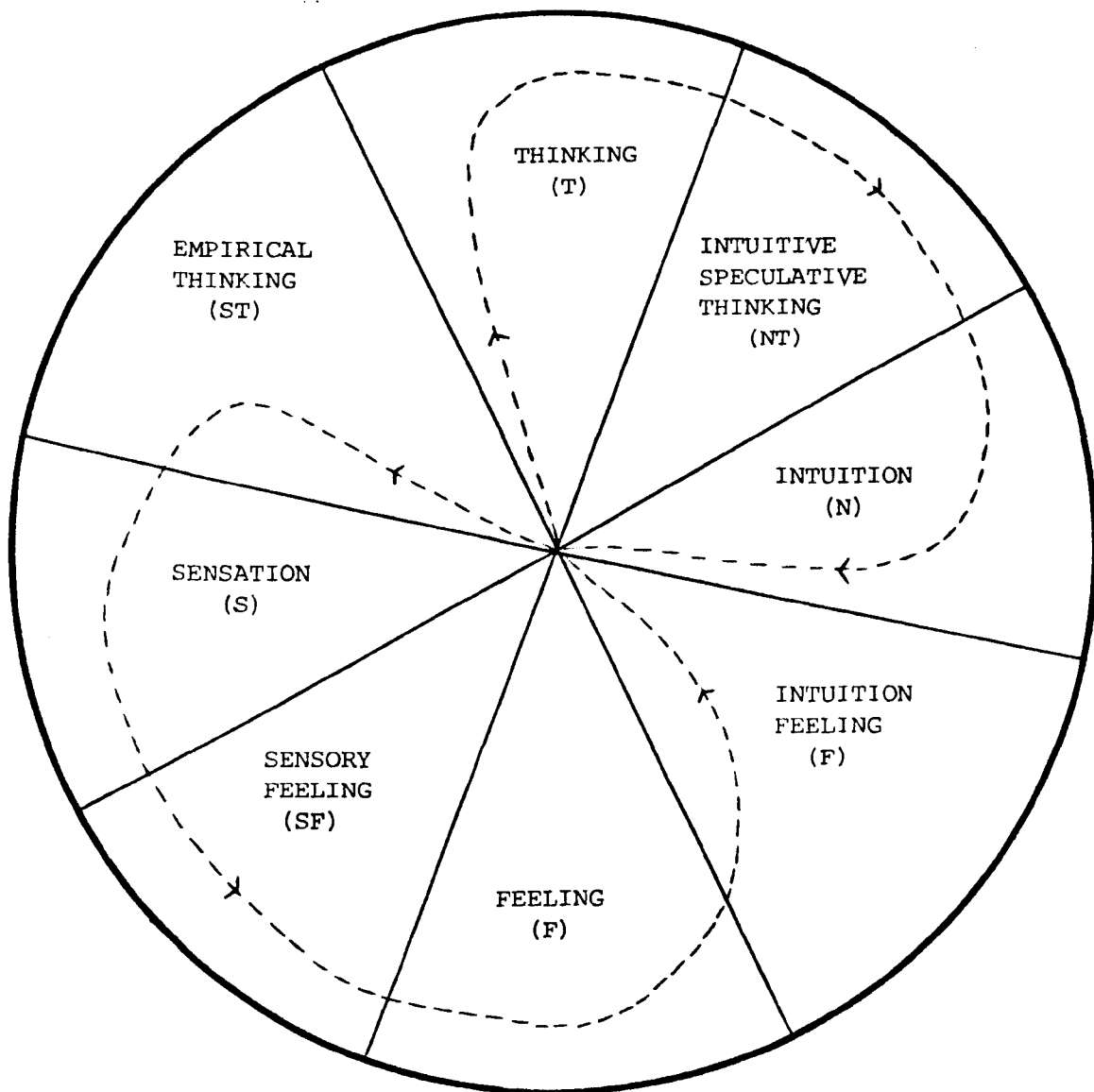
Diagram 5.1: A Critical Reconstruction of the Jungian

Sequence of Theory Formulation

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┌─────────────────────────────────────────────────────────────────────┐
│                                                                       │
│  ┌──────────────┐                              ┌──────────────────┐  │
│  │  Technical   │                              │  Emancipatory,   │  │
│  │    level     │──→ Hermeneutical understanding──→│  critical level  │  │
│  │     of       │              ↑               │   of interest    │  │
│  │   interest   │              ┊               │                  │  │
│  └──────────────┘              ┊               └──────────────────┘  │
│         ↑                      ┊                        ┊            │
│         ┊                      ┊                        ┊            │
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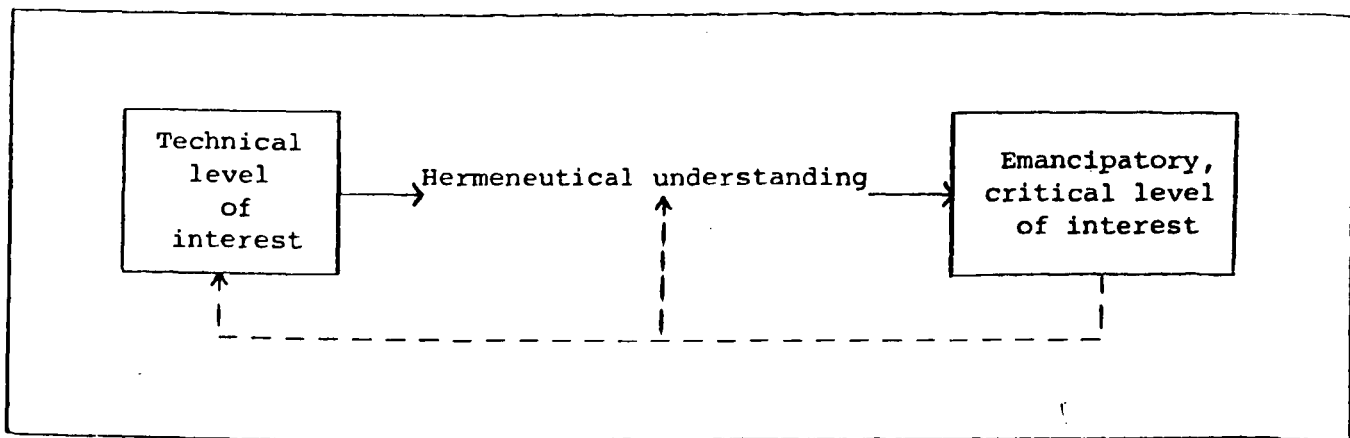
Diagram 5.2: A Model of Social Theory Formulation

This process of developing an integrated theory of O.E. is not claimed to be the only or the "best" methodology but is argued to be a way of building on and extending current methodologies in social science. The justification for such a process is two-fold:

(a) we begin where mainstream theory is at and our process of integration recognizes the contribution of a technical interest to the understanding of social knowledge. As will be argued, a technical concern with efficient administration is important for emancipation because it enables man to control and predict the forces of production; and

(b) we integrate in a manner which incorporates the major alternatives now emerging. The process of integration essentially follows Habermas's typology of the three levels of interest which are said to characterize the empirical, hermeneutic and critical sciences. Although we do not agree with Habermas's rigid distinction between each of these levels of interest, the typology afforded a useful base from which integration could proceed.

More discussion about this definition of integration is found in chapter 11.

5.2   The Old Wine in New Wineskins

The assessment of organizational effectiveness has so far been conducted primarily in the positivistic tradition of mainstream theory. The 2 x 2 matrix used to classify contemporary theories of O.E. reveals that such theories in effect fall mainly within the parameters of positivism as outlined earlier and therefore reflect the weaknesses therein. Theories which purport to be descriptive rather than prescriptive, make strong distinctions between fact and value and between 'objectivity' and 'subjectivity' fall within this classification.

Both these sets of criticisms are less true of the need-satisfaction theory of the F-set of Tinker (1975) and Lowe and Tinker (1977). This theory does attempt to uncover the prescriptive bias which undergirds so-called descriptive theories of O.E. and does seek a holistic analysis of the meaning of long-run satisfaction of participant needs and desires. The strengths of this theory have already been discussed in detail in chapter 2. These strengths partially explain why we have chosen to build an integrated theory of O.E. from the technical base of the notion of the F-set. However, as chapter 8 discusses in more detail, the F-set as it stands is not without difficulties and criticisms may be levelled at the theory from within the parameters of a technical-interested methodology. That is, were we to keep within a technical level of interest we are still able to criticise the F-set and propose changes which retain a technical perspective.

In brief, these criticisms are: the F-set as currently conceived does not analyse the processes by which macro- and micro-power rela-tionships may influence the content of the F-set and the particular mix of inducements and contributions which prevail in a micro-organization; it does not analyse, although theoretically it could, the historical

as distinct from the social, economic and political factors which influence the content of the feasible set and the choice of a feasible strategy; and it does not explicitly incorporate notions of long-run survival as defined by a long-run satisfaction of participant needs.

In addition, there were indications of methodological difficulties when the theory of the F-set was empirically tested. Tinker (1975) employed stepwise regression to analyse hypothetical linear relationships among his twenty-six variables, twenty-five of which were "independent" and the O.E. measure was the "dependent" variable. The use of stepwise regression in multivariate analysis is highly problematic and as Guttman (1977) points out stepwise regression as currently practised is neither inference wise nor theory wise. He writes:

> "Making further calculations conditional on lists of
> "significance" of previous calculations does not yield
> the implied probabilities for purposes of inference.
> A correct sequential test is not yet known. Alter-
> natively to look at all possible regressions simul-
> taneously creates another inference problem that no
> one has yet solved."
>
> (p. 7, Guttman, 1977)

Also mathematical and empirical cross-validation evidence suggests that there is merit in seeking a minimal number of predictors for practical prediction. Too many predictors can give almost worthless predictions in the next sample; they spoil a regression by adding more sampling error than anything else. The use of 25 predictors is therefore of dubious statistical reliability.

These methodological criticisms are, however, not an intrinsic criticism of the F-set but are more criticisms of the choice of statistical tools used by Tinker (1975). Such difficulties resulted primarily from the relative complexity of the theory generated and the rather undeveloped statistical means used and, indeed available for usage, in an empirical test of the theory.

For these reasons we attempt in chapter 8 to extend the theory of the F-set within a technical level of interest. Our purpose is to build an integrated theory of organizational effectiveness from a technical-interested base of measuring and identifying social patterns and relationships. The current conceptualization of the F-set is modified to take account of the theoretical difficulties identified within a functionalist perspective and an attempt is made to overcome some of the statistical problems of analysis. In particular the use of stepwise regression is avoided. However, our own use of statistics itself generates new difficulties and these are discussed later in the thesis when we integrate technical knowledge with a critique of social phenomena and practices. Prior to this integrative effort, however, the empirical results deduced and generated by a technically-interested theory of O.E., which is based on Ashby's Law of Requisite Variety, are analysed in conventional, traditional modes of statistical explanation. That is, these results are analysed and presented from a technical perspective; they form, as it were, the base strata from which hermeneutical and critical insights are generated. To borrow an analogy oft-used, this technical-interested theory and the results it generates are the outer layers of an onion, which are part of the totality of social phenomena (as pictured by the onion) and which, when unpeeled, reveal other layers of complexity generated by phenomenology and critique. Just as the part does not have meaning but within the whole so the whole is meaningless without its parts. Hence the concern with developing nomological knowledge, with quantification in social science and with using natural science methodology is an essential facet of an integrated theory of O.E.

This is not, however, to ignore the phenomenological challenge to the understanding of criteria of effectiveness in micro-organizations. There is much to recommend the phenomenological emphasis on the subjective and inter-subjective meaning of action. For too long this creative, manifest facet of man has been completely submerged by the analytical scientist's image of man

as a complex, mechanical physical system. In particular, Schutz's analysis
of the concept of *Verstehen* is invaluable: it is primarily the name of a
complex process by which actors attach meaning to action and thereby interpret
their own actions and those of others. It also defines the role of the
theorist as a creator of second-level "ideal types" which explain the first-
level ideal types and typifications used by actors. The concept of *Verstehen*
is here understood as a methodological tool whereby the actor's definition
of the situation might help provide a filtered, causal explanation of observable
regular patterned actions. This interpretation of *Verstehen* is closer to
Weber's original definition of the "ideal type" and to the work of symbolic
interactionists. The argument of ethnomethodologists like Zimmerman and
Wieder (1970) that they are concerned with the actor's point of view per se
is, though valid, of only limited use in providing explanations for the
regularities of social life.

But it is insufficient to recommend a descriptive analysis of the meanings
of O.E. and of the processes by which various definitions of O.E. arise.
For once the filtered observations have been made, then what? How does the
analyst propose to further his study? How does the argument proceed? For
what is lacking in this essentially phenomenological approach (though Hopwood
(1979) does not use the term) is anything that could serve as a basis for
critical evaluative judgments. What is worse, it turns this lack into a
virtue - the presumed virtue of pure description which hides support for
a conservative ideology.

Consider an example of how such an evaluation of effectiveness would
proceed. Suppose the analyst discovers that the administrators of Hospital A
influence substantially the definition of effectiveness and criteria such
as efficiency and speed of throughput became a highly visible facet of
organizational life. By contrast, Hospital B with a different historical
background is controlled by an elite of doctors whose self-interest
coincides with achieving a high degree of prestigious research output that

incidentally induces a high standard of patient care. Presumably there are basic structures common to both these forms of reality and a transcendental phenomenology would elucidate them. Further, by using the techniques of phenomenology, we can also describe the differences between those two forms of life and point out the explanatory causes and resultant consequences. For example, Hospital A is indeed more efficient and Hospital B does in fact have a national research reputation.

What is lacking in such a limited explanation, with its drive towards pure description, is any ground for evaluating these very different forms of social and political life, for saying that one form better approximates what social life is or ought to be. The discrimination of what is genuinely universal and a priori from what is variable, even if achieved, is not sufficient to assess any one historical form of social and accounting reality as dehumanising or alienating. Hopwood (1979), like other mainstream theorists, has essentially opted for an uneasy midway ethical position - he has assumed that by "describing" such events, reasonable rational and enlightened Man will act in an enlightened way to further "progress". But what is the basis of such an assumption - a belief in the inherent goodness of man?

In order to achieve the desired hermeneutical insights we have sought to enrich our extended, technical theory of the F-set. Chapter 8 sets out not only the technical base of an integrated theory of O.E. but it also incorporates a model within which historical meanings of O.E. may be located within the power relationships of past and present interest groups. Such power relationships are analysed at both the macro-structural as well as micro-political level. The creation of such a model in fact departs from the work of phenomenologists such as Schutz, Garfinkel and Goffman who have tended to almost pluck meanings from the air. In other words, one is unaware of the holistic framework within which their analysis of "descriptive" meanings takes place and is perceived. In contradiction we have set out an arena within which subjective meanings may be said to "mean something", to be a charged item of analysis, to be of significance to the social scientist.

We have chosen to analyse meanings within a political framework of power relationships because of a variety of reasons. Firstly, our research organization was one with a long history of social struggle to establish social and political status. Nursing and its training have been radically redefined since the 19th century and these definitions have reflected changing relationships with and expectations of other interest groups such as doctors and patients. In addition, the micro-organization had recently seen a clear change of authority styles in its leadership and had implemented a state-imposed hierarchical structure of legitimate authority. These historical contextual factors contributed to the choice of a political framework in analysing different meanings of organizational effectiveness. Finally ex ante interviews with participants from various interest groups revealed that authority relationships were a primary influence and integral part of their quasi-militaristic world.

Yet another departure from the argument of traditional phenomenologists was made when we analysed the historical social antecedents of meaning. Following Gadamer, we have sought an appreciation of the tradition-bound nature of understanding and to transcend surface meaning. Since tradition and history is the medium in which meaning is created and transmitted through time, the actions and expressions of a person and of a group of people can only be properly grasped within this context. As tradition lends significance to phenomena it becomes possible to conceive of them as having a meaning beyond or in conflict with that subjectively created by their creators. Therefore, in an interpretative analysis it is necessary for the scientist-interpreter to examine whether or not there are discrepancies between manifest and intended meaning.

Such an approach to uncovering the meanings and social constructions of criteria of effectiveness was thus intended to analyse the historical and social antecedents of these meanings. However, it also enabled the introduction of critique and an evaluation of tradition and of the

foremeanings within which contemporary meaning is situated. It paved

the way for what Habermas calls Tiefenhermeneutik or depth hermeneutics.

Habermas was particularly concerned with the assumptions which lay

behind Gadamer's arguments. Essentially Gadamer believed that because

interpretation always presupposed the supporting consensus of an ongoing

tradition, there was no independent ground from which to criticize the tradition.

Habermas summarizes the position as follows:

> "Any attempt to suggest that this (certainly contingent) consensus is
> false consciousness is meaningless since we cannot transcend the
> discussion in which we are engaged. From this Gadamer deduces the
> ontological priority of linguistic tradition before all possible
> critique: at any given time we can thus carry on critique only of
> individual traditions, inasmuch as we ourselves belong to the
> comprehensive tradition-context of a language." (p. 125, Habermas, 1970c)

In short, the consensus must be treated as an authentic and legitimate domain

of agreement and authority, since in Gadamer's opinion there is no way to

step outside it, no adequate trans-historical standard from which to consider

it otherwise, no language avoidable that will allow us to step beyond its

bounds in order to see how reality ultimately is or should be constituted. This

implies that when a discrepancy is uncovered between intended and manifest

meaning, the intended meaning must be interpreted within the given conceptual

system of the ongoing tradition. For Gadamer the authority of tradition and

of a historical context is supreme and the traditions supporting consensus provide

the only standards from which the experienced meaning must be understood.

Habermas rightly takes issue with this position by challenging as dogmatic
its uncritical acceptance of the underlying consensus of tradition. For him

> "every consensus in which the understanding of meaning terminates,
> stands fundamentally under suspicion of being pseudo-communicatively
> induced . . . the prejudgmental structure of the understanding of
> meaning does not guarantee identification of an achieved consensus
> with a true one." (p. 125, Habermas, 1970c)

He is critical of Gadamer for failing to come to terms with the possibility that

the dialogue which is may be a dialogue of coercion and domination. Gadamer,

in trying to escape Schutz's and Dilthey's picture of the objective observer,

has fallen into a contextual-bound uncritical mode which is intrinsically conservative. According to Habermas, Gadamer fails to see the fundamental opposition between domination and rational consensus, the latter being defined according to Habermas's theory of universal pragmatics. A "depth hermeneutics" is therefore needed. A form of analysis which is founded on the notion of rational discourse and which seeks to grasp the history of tradition and language in such a way as to reveal sources of domination and distortion in communication. Habermas argues that human life unfolds in a framework of language, labour and domination and a transendental basis for rational discourse is itself anticipated in the structure of speech itself. Hence, tradition itself is open to critique and analysis; tradition must be put into context by taking into account the boundaries and empirical conditions under which it develops and changes. By reducing social reality to the world of symbols and meanings, Gadamer fails to appreciate that this world, however symbolically mediated, is also shaped by the constraint of material forces and relations of production.

Gadamer's extensions to the work of traditional phenomenologists are thus useful but limited in their ability to uncover asymmetry in power relations because they are not anchored in a regulative ideal of unconstrained consensus. For these reasons, in chapter 11 we proceed to unite our observations of regularities with our discussion of meanings in a manner which seeks to expose unequal power relations and forms of distorted communication. For in addition to empirical and hermeneutical insights an adequately integrated theory of O.E. must possess a practical, critical, emancipatory function. Whilst not all forms of inquiry are always prescriptive, the separation of prescription from description in the social sciences is extremely difficult. In the assessment of organizational effectiveness, it is not possible unless one settles unsatisfactorily for the substitution of the notion of organizational effectiveness by the concept

of group effectiveness. Since prescription is inherent in the accountability
of subjective meaningful action it is essential that a rational procedure be
instituted that brings into debate competing normative claims for assessment.
It is here that the work of Habermas makes its contribution for his concept
of an ideal discourse suggests such a process without specifying the ultimate
normative position. The critical function is critical in order that
integrated knowledge might bring about more progressive, more integrated
social collectivities who are informed as to the constrainedness of their
structures of meanings and work to loosen these constraints. It is always
with a view of that "what ought to be" or "could be" that radical change
might be instituted to remove the non-restrictive "truths" that went before.
Indeed, if one were to draw the similarities between the Jungian development
of integrated individuals and the Habermasian model of societal evolution,
then the development of practical moral knowledge and learning which forms
the practical facet of social and organizational life is an indicator of
the development of the human species.

5.3 Towards an Integrated, Critical Theory of O.E.: Habermas's Concept of Self- Reflection

In order to grasp Habermas's concept of critique, it is necessary to
understand his notions of self-reflection and self-understanding. Both
these notions are derived from Habermas's reading of Freud. According to him,
the theoretical structure of Freudian psychoanalysis exhibits three levels
of analysis. The first is that of metapsychology which comprises:

> "the basic categories . . . of the discipline, the conceptual constructions,
> the assumptions about the functional structures of the psychic apparatus
> and about mechanisms for both the genesis of symptoms and the dissolution of
> pathological compulsions." (p. 252, Habermas, 1972.)

On this level one finds, in Habermas's view, Freud's theory of neurosis, i.e.
the connection between language deformation and behavioural pathology, the
ego-id-superego model and the theory of instincts. Metapsychology thus
explicates basic knowledge categories which are derived from reflection on
the conditions of psychoanalytic knowledge, on the very form of communication

in which analyst and patient participate. These categories cannot be assessed independently of this context, or directly by some form of empirical text; they can only be assessed indirectly through discourse and argument.

The second level of psychoanalysis is comprised of "empirically substantive interpretations of self-formative processes" which are developed within the framework provided by metapsychology. These general interpretations are drawn from data collected from clinical experience and operate like theories in the empirical sciences. Thus a general interpretation is "fixed" and like a general theory must prove itself through predictions deduced from it. In psychoanalysis a general interpretation provides, for example, a generalized narrative of the psychodynamic development of the child. This theory, by addressing itself to patterns of interaction between child and parent, development of motivation patterns and learning mechanisms etc., allows individual case histories to be understood in terms of a series of causal connections, although its application must be modified, in the light of initial conditions and the particularity of the case.

The third level involves "reconstructions of individual life histories" with a therapeutic content. The actual events of the patient's life are pieced together using the general interpretative scheme, on the one hand, and the fragmentary information obtained in the analytic dialogue, on the other. Each reconstructed life history can be viewed as a hypothesis generated by the second-level general theory. Verification of this hypothesis, however, is dissimilar to that required in the empirical-analytic sciences (inter-subjective agreement concerning the result of an observation in the light of a prediction) and the hermeneutic sciences (consensus about an interpretation). Rather in psychoanalysis, verification means acceptance by the analysand of the reconstruction of his/her life history. As Held (1980) points out, such acceptance and self-reflection must be on a level such that obstacles to memory etc., are apprehended and dissolved by the patient and his/her neurotic symptoms are overcome. Thus, in the end, the criterion of assessment of a

reconstructed life-history is emancipatory reflection achieved in and through practice.

This psychoanalytic model of social analysis is in effect mirrored in Habermas's own work. The first level of metapsychology is reflected in his theory of communicative competence in which he seeks to establish the basic claims about man's empirical competence in communication. The second level is found in his exposition about a general theory of social evolution which is based on his central claim that through *work* and *interaction* the human species evolves in two separate but inter-related dimensions, namely the development of the forces of production and the development of normative structures which govern interaction. The third and final level of psychoanalytic analysis is found in his attempt to reconstruct the life-history of a specific society in order to uncover and dissolve ideological formations. In particular, he focuses on the emergence of class societies organized around a state and on the possibilities of a "post-modern" society. On this third level, the aim is to identify potential crisis points in the social structure and thereby social groups amenable to the process of enlightenment.

It should be pointed out that the first level of metapsychology which corresponds to Habermas's theory of communicative competence is itself argued by Habermas to be a special form of reflection. In the postscript to *Knowledge and Human Interests* Habermas (1978), in an attempt to answer critics about a conflation of reflection with practical activity, distinguishes between two kinds of reflection. The word defines two processes: (a) it denotes the reflection upon the conditions of potential abilities of a knowing, speaking and acting subject and (b) it denotes reflection upon unconsciously produced constraints to which a determinate subject (or a determinate group of subjects, or a determinate species subject) succumbs in its process of self-reflection. The first form of reflection is now called a rational reconstruction which explicates general rules of human competence in a given area of context, for example linguistics or cognitive development. According to Habermas:

"Rational reconstructions . . . deal with anonymous rule systems
which any subjects whatsoever can comply with in so far as they have
acquired the corresponding competence with respect to those rules.
Reconstructions thus do not encompass subjectivity within the
horizon of which alone the experience of reflection (in the second
sense) is possible." (p. 22, Habermas, 1974.)

As can be seen, Habermas's theory of communicative competence clearly sets

out to rationally reconstruct man's ability to communicate with each other.

Such a form of reflection corresponds to the first level of metapsychology

in psychoanalysis because it seeks to locate the basic categories on which

subsequent general theories and specific case-histories may be built. The

theory of communicative competence sets out the means whereby forms of

distorted communication may be identified and it also signposts the mechanisms

whereby pathological compulsions may be banished. It performs a vital task

in reflection: the setting up of a priori conditions for the possibility of

knowledge and interaction. It highlights the conditions of interaction which

are "anticipated" in every speech act and argues that every human agent must

have an innate capacity to "construct" the ideal speech situation, i.e.

given the proper conditions, and perhaps the proper guidance and prompting, any

agent should be able to recognize what features an ideal speech situation

would have. A rational reconstruction thus sets out to highlight reflectively

what human agents are capable of achieving in a particular area of competence.

Habermas argues that this form of reflection is only feasible within the

context of a theoretical discourse; that is, it is only when we bracket or

suspend the imperatives of everyday action and reflect on "the conditions

normally assumed in ordinary interaction" that we can engage in this type of

activity. A rational reconstruct is empirical only in so far as it explains

the development and acquisition of empirical competences by empirical subjects.

It is not empirical in the sense of being tied directly to practice and to

influencing specific groups in society.

This is the role left to the second form of reflection - which Habermas

calls self-reflection or self-criticism. This is a mode of reflection which

"brings to consciousness those determinants of a self-formative
process (Bildung) which ideologically determine a contemporary praxis

and conception of the world." (p. 22, Habermas,1974)

Thus self-criticism is the mode of reflection which the analysand is encouraged to engage in during psychoanalysis. Unlike rational reconstruction self-criticism is tied directly to practice in so far as it is:

"(a) brought to bear on objects of experience whose pseudo-objectivity is to be revealed . . .

(b) brought to bear on something particular - on the particular self-formative process of an ego, or group, identity . . .

(c) characterized by its ability to make unconscious elements conscious in a way which has practical consequences." (p. 183, Postscript to Knowledge and Human Interests, 1978.)

Self-criticism or self-reflection is thus equated with a critique of ideology in the sense of false consciousness. Based on a theory of undistorted communication, this second mode of reflection seeks to locate sources of distorted communication. In general terms, Kortian (1980) points out that this means giving systematic meaning and importance to what is missing, to what fails to appear in ordinary interaction. Unlike traditional hermeneutics psychoanalysis is not content to understand interaction and language which is dominated by the assumptions of ordinary language. Instead, this form of depth hermeneutics is aimed at analysing distorted speech; to discover a meaning at an entirely different level from that of ordinary language, to extend beyond the manifest content of understanding to a deep-seated latent meaning. Such an assignment for the reflective role of a depth hermeneutics, as already pointed out, differs from the historicist tradition of philological hermeneutics and the contemporary philosophical hermeneutics of Gadamer. In the case of both these latter forms of hermeneutics the interpreter-scientist is generally concerned to establish communication between social actors speaking different languages or sub-languages or belonging to different eras. He seeks to institute an intersubjective understanding by eliminating difficulties due to differences in cultural context and socio-historical determinations. But he always proceeds within the limits of ordinary language games and their grammatical norms. Although he may be able to identify social, historical

influences on the content and shape of the language games used, he is unable

to identify pathological forms of communication. Moreover, in his everyday

life, that is, in the customary conditions of social repression, the neurotic

endeavours to maintain intersubjective understanding, employing the mechanics

of ordinary language games and following' the directives of social sanctions.

But,

> "the price he pays for undistorted communication under these circumstances
> of frustration is *distortion of communication within himself*. If the
> illusion of intersubjective constraint-free communication is not to be
> diminished, then the restrictions on public communication necessary
> under the institutional relations of control must be set up within the
> subjects themselves. Thus the *privatised section* of *excommunicated language*
> is reduced to silence in the person of the neurotic, along with the
> undesirable motives of action, and made inaccessible to him." (p. 227-8,
> Habermas, 1972.)

This distortion of communication requires the scientist-interpreter to teach

one and the same subject to understand his own language and contradictions,

repressed needs and desires therein.

> "The analyst instructs the analysand to read his own texts which he
> himself has corrupted and displaced, and to translate the symbols
> from a mode of expression which has been deformed in a private language
> into the mode of expression of public communication. This translation
> opens up the genetically important phases of his life history to
> recollection that was previously blacked, and makes him conscious of the
> processes of his own formation. To this extent, psychoanalytic
> interpretation, unlike the hermeneutics of the human sciences, is not
> concerned with understanding symbolic configurations as such. The art
> of *understanding* to which psychoanalysis leads is *self-reflection*."
> (pp. 228, Habermas, 1972.)

This mode of self-reflection, of self-understanding is unmistakably connected

with Hegel's *Phenomenology of Spirit*. In both Hegel and Freud a truth is to

be uncovered from the experience of the false in a kind of *self-enlightenment*.

Thus a distinguishing feature of such a radicalized form of critique is that

it heightens internal contradictions within a system of beliefs, values and

action. *Ideologiekritik* is not just a form of moralizing criticism, i.e. an

ideological form of consciousness is not criticised for being nasty, immoral,

unpleasant, etc., but for being false, for being a form of delusion. A belief

is ideologically false when it is "reflectively unacceptable", when it is accepted

by agents only because they were suffering from repression and domination.

Once such sources of domination are removed these same beliefs are no longer

acceptable - hence the objective "reflectively unacceptable" is used to describe forms of false consciousness. This function of self-reflection, self-criticism or *Ideologiekritik* is cogently described by Guess (1981) who writes that a critical theory criticizes a set of beliefs or world-picture as ideological by showing:

"(a) that the agents in the society have a set of epistemic principles which contain a provision to the effect that beliefs which are to be sources of legitimation in the society are acceptable *only if* they could have been acquired by the agents under conditions of free and uncoerced discussion;

(b) that the *only* reason the agents accept a particular repressive social institution is that they think this institution is legitimized by a set of beliefs embedded in their world-picture;

(c) that these beliefs could have been acquired by these agents *only* under conditions of coercion. (p. 68, Geuss, 1981.)

From this it follows immediately that the beliefs in question are reflectively unacceptable to the agent and that the repressive social institutions these beliefs legitimize is not legitimate. He also points out that for Habermas ideology is fundamentally false consciousness and what Guess calls the epistemic and genetic dimensions of ideology are paramount. By the epistemic dimension, Guess means that actors who are ideologically bound have made a factual error which contradicts their own, assumed epistemic principle of only rationally accepting beliefs only if they could have been acquired by agents under conditions of free and uncoerced discussion. By the genetic dimension Guess refers to the "fact" that an ideological form of consciousness "requires" ignorance of or a false belief about its own origin or genesis, in the sense that given their epistemic principles, agents would not continue to cling to that form of consciousness, if they knew something about its genesis - namely if they know that it could not have arisen in conditions of free discussion. What Guess terms the functional dimension of ideology is secondary to these two dimensions. A functional approach to ideology is one which places emphasis on the argument that a form of consciousness is false by virtue of the fact that what it stabilizes or legitimizes are relations of *Herrschaft*, which is defined relative to the ability to frustrate agent's wants and preferences. *Herrschaft*

is often used by Habermas to mean hegemeny or domination; it is the domination of one interest group over another, the ability of one group to frustrate the desires and wishes of the other. To Habermas this functional aspect of ideology/false consciousness is secondary. To be sure, a form of consciousness cannot be ideological unless it thwarts some human desires, wants or preferences. It is also true that if a form of conscious is ideological it means that it will legitimate and stabilize *Herrschaft*, surplus repression etc. but what <u>makes</u> the form of consciousness an ideology is that it provides <u>false</u> legitimation in that it makes the agent accept as legitimate that which if they were perfectly free and completely knowledgeable they would not accept as legitimate. So that an ideological form of consciousness will legitimate *Herrschaft* seems derivative from the fact that a form of consciousness formed in the ideal speech situation would <u>not</u> be one which would legitimate *Herrschaft,* Still Habermas·obviously thinks that it is not just an accidental or contingent fact about human beings that they will not freely and knowingly accept surplus repression, unnecessary inequality etc. He obviously thinks it is a mandate of reason itself that rational agents do not gratuitiously destroy the necessary conditions for the development and exercise of their own rationality, but to accept surplus repression or unnecessary inequality is to accept gratuitous obstacles to the realization of the ideal speech situation. The ideal speech situation, however, is just the ideal condition for the development and exercise of human rationality; we can predict a priori then that rational human agents will not freely and knowingly set up their society so as to prevent themselves from being as rational as possible.

Self-reflection and indeed rational reconstructions are thus tied to the emancipatory interest of knowledge, intended to produce enlightenment and emancipation. We are now in a position to see more clearly how this happens for self-reflection. Enlightenment

   (a) dissolves pseudo-objectivity and what Habermas calls "objective

      illusion";

(b) makes the subject aware of its own origin, its possibilities and the origin of its beliefs; and

(c) brings to awareness unconscious determinants of consciousness and behaviour.

By inducing self-reflection agents are brought to realize that the coercion from which they suffer is self-imposed, thereby dissolving the "power" or "objectivity" of that coercion and bringing them to a state of greater freedom and knowledge of their true unconstrained interests. Critique brings to the agent's awareness unconscious determinants of their consciousness and behaviour and it points out to them that their own coercive social institutions are "determining" them (by distorting the communication structure in the society) to cling to their ideological world-picture. Initially, the agents falsely think that they are acting freely and without constraints in accepting the world-picture and acting on it; the critical theory shows them that this is not the case by pointing out social determinants of their consciousness and action of which they are not aware. In this way, critique makes the agents aware of their own origin. For to enlighten the agents about their own genesis or orgin is just to explain to them how they became the subjects they are with the beliefs, attitudes, norms, etc. they have. An essential part of critique is thus the hermeneutical project of showing them under what conditions, in what context, they acquired these beliefs, attitudes and norms and how they came to hold their basic world-picture, that is, how they came into being as social subjects.

That still leaves the claim that critique by inducing self-reflection dissolves pseudo-objectivities and "objective illusion". Guess (1981) points out that the words "objective illusion" emphatically do not refer to "objective mistakes", that is taking particular arrangements of capitalist society which result from a particular kind and form of human activity to be invariant, unchangeable natural facts, or results of the subjective laws of nature. Guess argues that the whole point of an ideological delusion is that it

legitimises a social practice or institution. Now a social arrangement which is mistaken for a natural phenomenon, or a purely "objective fact" does not require or indeed even admit of legitimation. Legitimation is not required for hurricanes, or floods, or other natural occurrences; legitimation is only required for such things as are in an agent's power to change. So critique cannot have the limited intention of informing agents that the repressive social institutions from which they suffer are not just objective facts, but are in their power to change. The fact that they demand legitimating arguments for these institutions indicates that they know that already. Instead, an ideological world-picture is an objective illusion when it falsely claims and appears to have a "rational, unconstrained" status. That is, it falsely claims that it is the world-picture fully rational agents would find themselves compelled to adopt (by the force of the "better argument") if they were to engage in unrestricted discussion under ideal conditions. Further, this appearance or illusion is "objective" because an "objective" validity is claimed for it. The self-generated pseudo-objectivities which self-reflection is to dissolve are such "things" as natural right, natural law, the "essence of man", the basis of human nature, etc., that is, they are the "things" about which the world-picture purports to make objectivistic valid statements.

Thus self-reflection or reflection more generally are aimed at emancipation which is now more clearly analysed as a process and a social transition from an initial state to a final state which, according to Guess (1981), has the following properties:

(a) the initial state is one both of false consciousness and error and

(b) in the initial state false consciousness and unfree existence are inherently connected so that agents can be liberated from one only if they are also at the same time freed from the other;

(c) the unfree existence from which agents in the initial state suffer

is a form of self-imposed coercion; their false consciousness
is a kind of self-delusion;

(d) the coercion from which the agents suffer in the initial state
is one whose own power or "subjectivity" derives only from the
fact that agents do not realize that it is self-imposed;
and

(e) the final state is one in which the agents are free of false
consciousness - they have been enlightened - and free of self-
imposed coercion - they have been emancipated.

Conditions (a) and (b) are satisfied when agents hold a set of
beliefs which are ideologically false, that is, beliefs which would not
be held in an unconstrained world and which are held only through
coercion and domination. There is an inherent connection between false
consciousness and unfree existence/domination. Agents cannot be freed
from one without also being freed from the other; they cannot be freed
from their coercive social institutions as long as they retain the
ideological world-picture which legitimizes them, nor can they get rid
of their ideological world-picture as long as their basic coercive social
institutions render it immune to free discussion and criticism. The
process of legitimation thus plays a vital role in the process of
emancipation and domination. To say that members of a society or institu-
tion take a basic social practice as legitimate is to say that they take
it to follow from a basic social system of norms which they all accept
and identify with. So a social practice is considered legitimate if it
can be shown to stand in the "right" relationship to the basic world-picture
of the group. A practice may, therefore, be extremely repressive - it may
thwart and frustrate the agents in the pursuit of many of their strongest
desires - and still be accepted by the members of the society because they
take it to be legitimate, to accord with certain normative believes which are

deeply embedded in their world picture. Were these normative beliefs to be ideologically false, they would invariably make acceptable repressive institution of domination.

It is also not hard to now understand in what sense the unfree existence from which the agents suffer is a form of self-imposed coercion. Social institutions are not natural phenomena; they do not just exist of and by themselves. The agents in a society impose coercive institutions, create "objective illusions" by participating in them, accepting them without protest, giving them face-validity etc. Simply by acting in an apparently "free" way according to the dictates of their world-picture, the agents reproduce relations of coercion. In holding their false form of consciousness the agents in society are deluding themselves. Ideological error is not a mistake the agents make for some accidental reason nor does someone else consciously deceive the agents in a great conspiracy. In acting the agents produce their basic social institutions and it is the normal operation of these social institutions which maintains the world-picture. The illusions embodied in this world picture are the result of the agent's own activity reacting on them.

The process of emancipation and enlightenment thus entails both freedom from a false set of normative beliefs and a variety of repressive social institutions and practices.

We can now see how the concept of reflection is tied to an emancipatory interest and to the concepts of enlightenment and emancipation. We have also argued, following Habermas, that reflection goes beyond the traditional hermeneutical concept of *Verstehen* and is akin to a depth hermeneutics (*Tiefenhermeneutik*). It is clear that the definitions which Habermas ascribes to the concepts of ideology, delusion, repression, objective illusion on the one hand, and emancipation and enlightenment, on the other follow directly and explicitly from his theory of universal pragmatics. It is this normative criterion of a rational consensus based on an ideal

speech condition which undergirds the entire project of critique and self-reflection.

We have already discussed one instance where critique and depth hermeneutics differs from the traditional concept of *Verstehen*. There is a second difference of some import and controversy. Held (1980) argues that understanding in psychoanalysis entails both an understanding of a subject's intersubjective meanings <u>and</u> an understanding of neurosis as the consequence of lawlike developments, which act, prior to therapy, as a form of "second nature". While understanding cannot be accomplished without explanation, the role of explanation is to mediate between distorted self-understanding and a posited state of self-consciousness. Explanation, in the form of a reconstructed life history, is used both to understand and overcome the pressures of second nature; to reinstitute an unconstrained existence. The complementary utilization of explanation and understanding is necessary, therefore, only while there is a gap between the patient's distorted self-understanding and his or her behaviour (as manifest, for instance, in neurotic symptoms). Once the therapy has been successfully concluded and the patient is well, explanation of actions will coincide with the patient's own understanding and the process of explanation will itself become superfluous to the recovery of meaning. Held then quotes from Apel in describing the role of explanation and understanding:

> "I think that this methodological pattern of dialectically mediating communicative understanding by causal explanation is, in fact, the model for a philosophical understanding of all those types of critical social science which have their relation to the practice of life, not in the realm of social engineering, but in providing public self-reflection and in emancipation of men as subjects. (p. 34, Apel, 1972, Quoted on P. 343, Held, 1980.)

Held interprets Habermas and Apel as saying that a critical theory of social phenomena is in effect what we would term an integrated theory of social phenomena - one which unites linguistic analysis with the psychological investigation of causal connections in emancipating men from false consciousness and repressive practices. In short, according to Held, Habermas

puts forward critical sciences as bodies of knowledge which unite an interest in nomological and interpretative knowledge within a framework aimed at facilitating the process of reflection. Thus while empirical-analytic sciences are structured to generate knowledge in the form of laws and theories which can account for regularities in "observable" phenomena and the hermeneutic sciences are structured to allow the recovery of a particular meaning of an action or expression, critical theories are integrated theories which are empirical, hermeneutical and critical. This interpretation of Habermas's work, as we argued earlier, is not always made explicit by Habermas himself and there is some ambiguity in his work. His theory of knowledge-constitutive interests, when first propounded, made rigid distinctions between different kinds of knowledge and he appeared to define a restricted role for the empirical-analytic sciences and their distinctive form of knowledge. However, when he speaks of psychoanalysis and the explanation of neurosis, he does speak of the necessity of obtaining "causal explanations" which Held has interpreted as lawlike developments which act as a second nature. Such ambiguity produces a contrary interpretation from Kortian (1980). He argues that the causality which Habermas and Freud speak of cannot be the Humean Causality of the natural sciences which equates causality with the concommitant occurrence of certain phenomena in lawlike frequency. He argues that causality in a psychoanalytic context:

> " . . . could only be causality in second nature, in the Hegelian
> sense of the term. The young Hegel explicated this as the causality
> of fate, having in mind a context of loss and restitution in a
> domain of life." (p. 116, Kortian, 1980.)

Kortian did not equate the term "causal connections" with the causality of nomological knowledge, and indeed he clearly rejected the latter connection.

This ambiguity in Habermas's work was one of the reasons for our long argument for an integrated theory of phenomena which utilized nomological and interpretative knowledge in a critical reflective mode. In view of our argument, Held's interpretation is more consistent with an integrated theory of social phenomena; where nomological knowledge is accepted by the theorist

as an essential, necessary facet of knowledge which is ultimately grounded

in an emancipatory interest. An integrated theory actively seeks to raise

both the levels of empirical-nomological knowledge and practical knowledge in

a given society in order to advance the evolution of society such that a

higher level of true need-satisfaction may be contemplated with an expansion of

both the choice and the range of possible problem solutions. This depiction

of the role of an integrated theoria within Habermas's general theory of

social evolution, it is argued, is more consistent with his comments on

Freud's theory of ideology.

Freud distinguished, Habermas claims, the forces and relations of production

in a way similar to Marx. He understood that the level of "necessary" social

repression was a function of the level of development of productive forces;

as the technical power of a society to control the forces of outer nature

increases, the constraints of scarcity are progressively overcome, thus

decreasing the degree of socially necessary repression. As the level of

repression diminishes, the institutional framework of a society can be changed

to accommodate a higher level of needs gratification. The level of necessary

repression is vaguely defined by Habermas as that which results from the

conflict between surplus impulses and conditions of collective

self-preservation.   That is, faced with conditions of scarcity,

human beings - in order to survive - are forced to adapt to their environment

in ways which prevent "complete gratification of instinctual desires". Thus

societies and social institutions, in order to ensure collective survival,

repress wants and needs. The satisfaction of these needs is enhanced when

the required degree of repression is lessened by greater technical control

over nature and by the extension of objective possibilities by the productive

forces. Thus technical control over the development of productive forces was

seen as a necessary precondition of emancipation. However, as Habermas goes

on to argue, neither greater technical progress nor the dissolution of

systems of distorted communication necessarily brings about emancipation and

enlightenment. Resistance could be encountered and one of the ways in which a critical theory is confirmed is the extent to which resistance is overcome and is accepted by agents who possess a perfectly free, fully informed, and thoroughly considered judgement.

This interpretation of Freud is more consistent with an integrated theory of social analysis and argues as we do that nomological knowledge not only has a separate, independent scientific role but is a precondition, a prerequisite for the process of emancipation and enlightenment. Thus we would agree with Held's distinction between the concepts of understanding and causal explanation as used in the psychoanalytic or depth hermeneutic context and the concept of *Verstehen* as used in the context of traditional hermeneutics.

Finally, in this analysis of the relationship between reflection, ideal speech situations, emancipation and enlightenment, we wish to highlight the difference between self-reflection (*Ideologiekritik*) and psychoanalysis. In the case of individual neurosis, there is often no other agent who benefits from the mystification and repression and who thus has an interest in its continuance. Neurotic repression is self-imposed literally; the struggle to overcome it is a struggle with oneself, not with external physical or social reality. Self-knowledge, therefore, leads generally to freedom from self-imposed coercion and freedom from self-imposed coercion is synonymous with a reduction in the level of frustration. This may not necessarily be so in cases of ideological coercion. Such forms of coercion are self-imposed - by acting and accepting them in the way they do, agents constitute coercion - but the "objective power" it has over them is not just a power which will automatically be dissolved by critical reflection. In acting in their self-deluding, illusionary world, agents have produced a complex of social institutions which cannot now be easily abolished merely by changes in the agent's beliefs - by the dawning recognition of where their true interests lie. Further, an ideology is not a form of consciousness which merely legitimizes repression but one which legitimizes unequal distribution of normative power and *Herrschaft*. Indeed, ideologies only arise in conditions

in which an unequal distribution of surplus must be legitimized. That the distribution is unequal means that more is distributed to some group, say A, than another group, B. Therefore, to abolish an established social institution which is deeply rooted in the interests of A will in general require more than a change in the form of consciousness of B, the oppressed. It will require a long cause of political or as Habermas calls it strategic action. Until that course of action has been brought to a successful completion and dominating groups, such as A, freely assent to such political action, then the institution will continue to exist and continue to frustrate A's and B's freedom and desires. A's desires are "frustrated" although they benefit from such frustration because they too are suffering from a distorted form of consciousness. They too live in a society in which the communication structure is distorted for everyone. To say that the ideological delusion works to the benefit and advantage of the members of the dominant group means only that in the given social system, as then distorted and constituted, it is "better" to be a member of the dominant than of the oppressed group. This in no way implies that the dominant group are not themselves also massively frustrated and also implies nothing about what social system they would prefer if they had unconstrained choice. Until such time that strategic action does couple emancipation to enlightenment, both the dominant and the oppressed will not experience a decrease of suffering and frustration. If anything enlightenment is likely to make awareness of frustration rise. And the process of enlightenment itself may be incomplete until agents are emancipated not only from the complicity in their own oppression, but from the unfree social existence they now lead.

5.4 More Criticisms of Habermas's Framework

Habermas's concept of reflection has been discussed in detail because it is central to the process of emancipation and enlightenment. However, as it stands, the theory of self-reflection does not provide a wholly satisfactory integrated theory of social and organisational phenomena and there are several difficulties with Habermas's ideas in particular and with that of the Frankfurt School more generally.

Firstly, as Held (1980) points out, Habermas and the Frankfurt School more generally, through being excessively influenced by their experience of Fascism and Nazism maintain an exaggerated notion of the coherence of capitalism. A conception of society, and in particular of capitalist society is presented which tends to overestimate its internal homogeneity and critical theory as currently presented does not adequately grasp the pattern of conflicts and the endemic tensions in society. Society appears in their analysis to be completely steered and dominated by a ubiquitous capitalist conspiracy; managed from above and not the outcome of a continuous, historically-situated process of struggle over rules, resources and meanings. This overemphasis on the cohesion of the interlocking relations between the economy and the state raises several issues:

(a) It leads to an unsatisfactory notion of domination; a notion is propounded which suggests a rigid, taken for granted relation between various public and private bureaucracies and a conception of administrative/ bureaucratic/class domination which is deterministic and inescapable.

(b) It denies the possibility of struggle over state and economic activities and the possibility of reforms being instituted which work to circumscribe and perhaps undermine (in the long run) the capitalistic accumulation process. Habermas, himself, does not clarify an agent of revolutionary transformation; and this despite the fact that he recognises the need for a theory such as his to be able to identify the subject of emancipation.

(c) It fails to explain policies which are not obviously linked to the pursuit of profit and wealth maximization. Policies may be effected by the state which are a result of negotiation in a variety of realms and with a number of groups in society. In addition, unintended consequences may result from state intervention which are not adequately explained wholly by an over-rationalistic theory of the relationship between the state and various bureaucracies.

(d) It overestimates the significance of instrumental reason, technique and technology in shaping political attitudes and demands within the individual, the group and the institution. As such, it does not account for the diversity of levels of social consciousness which may prevail in collectivities. Giddens (1977), among others, has argued that a peculiar brand of "dual consciousness" is often expressed; this combines a dissatisfaction with dominant interpretative systems in everyday work worlds with a relatively conservative interest in wider political parties and processes.

New issues arise with Habermas's controversial concept of an "autonomous ego" - the ideal unitary posture of human nature which is hinted to be consistent with the ideas of an emancipated collectivity. Habermas has attempted to avoid an ahistorical conception of the autonomous ego by arguing, following Piaget and Kohlberg, that there is a developmental logic in the development of the individual ego. His theory of ego development is used to create a parallel theory of social development. In both instances, Habermas argues that his notions of a developmental logic tells us only something about the range of variations within which social and individual organization can be organized but the actual dynamics of development are left to the influence of history. Despite this, problems remain for it now appears that the aim of emancipation is not only to be equated

with the achievement of an unconstrained consensus as to the ends and means of action but is only possible with the attainment of an autonomous ego within individuals. Such an ego-identity can only be sustained if the structures which support the authoritarian state are undermined. But this notion of an autonomous ego remains ambiguous and Habermas does not actually explicate the relationship between the ideal speech criterion and the achievement of an autonomous ego - the only relation vaguely hinted at is that one state of the individual cannot be procured without the other state of the collectivity. Presumably it is in this sense that "an autonomous ego" is said to "reciprocally require" an emancipated society. How exactly would Habermas define an autonomous ego and in what sense does an unfree ego relate to an unfree existence? Is a coerced ego identical to an individual who suffers from false consciousness? In what sense can an ego be coerced? How does it relate to the concept of an ego which is bounded by "objective illusions"? Is the process by which an ego becomes free and uncoerced similar to the process by which objective illusions are removed? These and other questions have not yet been answered by Habermas and we can but hazard a guess at the relationship between the development of an autonomous ego-identity and the achievement of unconstrained consensus.

Thirdly, Habermas may be criticised for not giving an adequate emphasis to the integration of studies of the individual and social consciousness with political economy and institutional analysis. This criticism is different from that of Marxist critics whose concerns have already been discussed in chapter 4 and found to be ill-justified. Our complaint is not that "traditional Marxist concepts of political economy" are ignored but that there is a lack of integration of macro-level analyses with micro-level studies of consciousness. Because so many of the important features of contemporary capitalist society are seen as the result of initiatives from public and private bureaucracies (Marcuse) or the

outcome of illusion (reification) (Adorno and Habermas, to a lesser extent),

the importance of analysing particular patterns of social relations, the

labour process (the experiences people have of it as well as its structure)

and political organizations, is downgraded.

In short, this third criticism argues that Habermas and the Frankfurt

School have failed to adequately characterise and detail the complex

meshing of relations at the individual, group and societal level. This

criticism is connected with an insufficient use of the techniques of

historical investigation. Despite the School's continual emphasis on history

and the importance of historical inquiry, their work lacks sufficient

historical and empirical detail on the ways in which social forms are created,

sustained and changed. Despite the intention to bring together theoretical

considerations and empirical research, many of their boldest claims are

under-researched. Precisely that which they sought to grasp - the "fluid

reality" of sociological and psychological life; of empirical, hermeneutical

and critical knowledge of the past and the present eludes them. Held (1980)

believes that such an unsatisfactory position could be due to two "causes",

(a) models of societal development were too readily drawn from the

experiences of a rigid, all-powerful form of fascism, Nazism and Stalinism;

(b) the revolutionary agency was invested more and more in the individual.

As the confidence in fundamental social change was gradually lost

(particularly by Horkheimer and Adorno) hopes were increasingly vested

in the individual as the point of freedom - despite all the arguments they

made against such a position. Even Habermas, with his emphasis on systems

analysis and the identification of systems problems fails to draw the

integrating links between the individual and the system. As a consequence,

there is a tendency to neglect the Janus-faced nature of social phenomena

- to integrate the whole and the parts in an analysis which does justice to

both.

In a sense, our third criticism is closely connected with the first, in that it is the emphasis on the cohesion of the whole which precipitates a neglect of the conflict among the parts. Because the Frankfurt School takes the domination of the elites to be self-evident and well-nigh complete, there is scant attention paid to how such domination is created, sustained, and resisted. Resistance is simply not often "seen". Habermas does recognize that this dominance may be undermined but he errs on the other extreme. To him the legitimacy of capitalistic values and forms of consciousness is so totally undermined that a motivation crisis is imminent and capitalist society is ready to move to alternative modes of thought which reflect a communicative ethics. Not only is there little evidence to suggest such an imminent move, Habermas does not provide an argument why the alternative should be his ideal of an ideal speech situation. On the one hand, he argues that his theory of social evolution does not mean that empirically and historically societies will move in line with his developmental logic. On the other, he appears to succumb to crude forms of orthodox Marxist determinism in postulating that the next move is to a "better" society as he defines it. He tries to walk the narrow line between the stronger claims of Hegelian teleology and historical relativism but he is not always successful in maintaining a consistent balance.

Our fourth and final criticism about Habermas in particular relates to his obscure notion of "necessary repression". Because of the way in which Habermas interpreted Freud and developed his argument of societal evolution, he has to rely on the notions of "necessary repression" and "surplus repression", which surfaces at the individual and societal level. According to Habermas, Freud had implied that for collective self-presentation a certain degree of repression of instinctual drives was necessary. Faced with conditions of scaricity, human beings - in order to survive - are forced to and indeed required to create institutions which prevent a complete gratifica-

tion of instinctual desires.

Whilst differing from Marcuse in this context, Habermas too believed that a basic degree of repression was necessary at each level of survival. His theory of a developmental logic in social evolution is grounded on the assumption that at each level of survival, there is an optimal level of technical and practical learning and capacity. The basic level of technical competence sufficient to ensure survival represents the basic degree of historically required repression. Repression which is in excess of this level is defined as surplus repression. In order for a society to move to a higher level of survival and to move towards an ideal speech condition, advances must be made both at the technical and practical learning levels. The precise movement to a new level of development would depend on (a) the type of new learning acquired; (b) the unresolved system problems which had overloaded the society's steering capacity at its present level of knowledge; and (c) the specific strategic action taken by members of that society in overcoming their identified problems.

This concept of a basic repression level, which is synonymous with a "basic" survival level, is remarkably similar to Tinker's ideas of the F-set. However, unlike Tinker, Habermas does not posit the basic level as the criterion of satisfaction and instead argues a stronger normative ideal. Also, unlike Tinker, Habermas conceives of this basic level of the human condition not as the minimal level of need-satisfaction but the historically required level of repression. Despite these creative differences in emphasis, however, Habermas's concept of survival, like Tinker's, is beset with theoretical difficulties.

Let us remain with Habermas's definition of surplus repression or surplus Herrschaft: the ability to frustrate the preferences of social agents in a society to a greater extent than is necessary for it to maintain and

reproduce itself. This concept of *Herrschaft* and surplus *Herrschaft* is also synonymous with an unequal distribution of normative power, with the domination of one group over the other. It is important to stress that *Herrschaft* is the exercise of power within an unequal political order and is linked to some kind of legitimacy. If a group of invaders simply ransacked a country, doing and taking what they wanted by sheer force, they would clearly be frustrating the preferences of the agents on whom they act, but they are not exercising *Herrschaft*. Normative power/repression is the frustration of agent's preferences which makes a claim to legitimacy that is accepted by those agents because of certain normative beliefs that they themselves hold. Thus any form of *Herrschaft* is a legitimate unequal or asymmetrical distribution of normative power. Surplus *Herrschaft* exceeds that required to ensure survival.

But to say that " (*Herrschaft*) is required by the economy" or " . . . is required if the economy is to function" is at best an approximation; to say that "the economy" "functions" is to say that it functions at some level of efficiency (i.e. at some level of expenditure of resources) to provide some level of satisfaction of a qualitatively specific set of human wants and needs of a quite particular kind. It presumably also means that the industrial plant does not produce a mass of goodies and then promptly collapse, so the economy must function in such a way that it not only satisfies certain human wants, but also reproduces itself. One cannot even begin to determine whether society imposes surplus repression on its members unless one specifies what level of satisfaction of what particular human desires and needs the economy is to provide. As Guess (1981) puts it picturesquely:

> "Did the ancient economy 'require' the use of slave labour in order to function at a level which would provide each Mikrokles with an onion, a barley cake, and half a cabbage for each of his two meals a day? Or did it require the use of slave labour if it was to function so as to allow Alkibiades to race in a four-horse chariot in the morning and spend the afternoons playing cottabos in the baths?" (p. 35, Guess, 1981.)

Associated with every human collectivity, whether it be an organization

or a society, there will be a set of accepted wants, needs and desires.
But one cannot define surplus repression as any repression more than that
required for survival of the socially accepted and defined needs. After all
the set of acceptable needs and the traditional level of consumption may
themselves be part of an ideology which we wish to criticize. An appeal to
surplus repression was supposed to give an external evaluative standpoint
which was outside the given social interpretation of the agent's needs, from
which to criticize it. The Frankfurt School clearly wishes to argue that
"real" needs and desires include more than minimal biological survival
needs and that interaction and work have a complementary developmental
logic. Hence any repression which is more than that needed to ensure the
physical survival of the agents is surplus. Agents in society have
acquired sophisticated cultural needs and it is as legitimate and important
that they be satisfied as it is that the agents get enough food and shelter.
But surplus repression provides but a bed of sand on which to establish an
"objective" standard of evaluating societies and their associated forms of
consciousness. To measure the amount of surplus repression we first have to
determine what needs and desires are deemed to be at the basic level of
survival.

Thus we, like Guess, would argue that the notion of surplus repression
cannot form the starting point of a critique of social phenomena. Rather
we must start with Habermas's theory of communicative competence, abstract
though it is at present, in order that we are able to define a priori which
needs and wants are legitimate and which are ideologically false; the amount of
surplus repression, then, is the amount of repression exacted beyond that
required to satisfy the agent's legitimate needs and desires. The phrase -
"this repression is surplus" - is a conclusion which sums up a critical
argument; the real work of *Ideologiekritik* would already have been done in
distinguishing legitimate from "false" needs and wants.

These four difficulties are, in our opinion, primary weaknesses in

Habermas's argument and they indicate challenges to be met in devising an integrated theory of social phenomena. There are other criticisms of his work which are minor and have not been discussed in chapter 4 or this chapter. The reader is referred to them in Held (1980) and McCarthy (1978), Keat (1981) and Guess (1981). Despite these difficulties with the conceptualizations of critical theory to date, it is felt that critique remains a vital facet of social analysis. And Habermas's framework, with all its attendant baggage does provide a basis for an empirically informed critical theory. But one last doubt should be discussed before we move to examine the basis on which Habermas's critical theory needs to be accepted - the subject and instigation of emancipation.

It is necessary for a theory such as Habermas's to identify the subject of emancipation. The questions arise: to whom is critical theory addressed? Who is to be the instigator or promoter of enlightenment? Held (1980) appears to chastise Habermas for not declaring a specific subject of emancipation and a particular transforming agent or catalyst. We argue that such a declaration has been made by Habermas in a general but sufficient way. Thus from his writing and that of Marcuse, it is possible to distinguish four groups of agents who could form the subject of emancipation. These are:

(a) agents who are suffering and know what social institutions or arrangement is the cause;

(b) agents who know they are suffering, but either do not know what the cause is or have a false theory about the cause;

(c) agents who are apparently content, but an analysis of their behaviour shows them to be suffering from hidden frustration of which they may not be aware;

(d) agents who are actually content, but only because they have been prevented from developing certain desires which in the unconstrained course of things they would have developed, and which cannot be satisfied within the framework of the present social order.

Cases (1) and (2) indicate that the subject of emancipation is usually identified by the felt, conscious experience of frustration and suffering of particular groups of people. There are, in these instances, clear, observable, explicit signs of frustration and suffering. However, case (3) suggests that in certain societies there could be such extensive repression that members may be prevented from becoming fully aware of the fact that they are miserable and frustrated. In other words, the frustration is hidden from superficial analysis and agents in such societies are deprived of a full and immediate experience of their own unhappiness. The frustration of these desires is not something which is ever allowed to come to full consciousness: a clear recognition of the frustration might lead to recognition of the inadmissible unconscious desire. However, Habermas argued that even in such situations there would be observable, meaningful clues to a state of latent, unconscious frustration; clues which an indepth hermeneutics would be able to unveil. Although a situation of unrecognized frustration and unhappiness may be the case, there would be various, perhaps isolated, signs of a vague malaise, a free-floating sense of dis-satisfaction and "irrational" patterns of behaviour, that is, behaviour which is not threatening to prevailing normative structures but which nevertheless does not coincide happily with them.

Case (4), however, is the nightmare of the Frankfurt School. Here agents in a society are really fully satisfied with their lives and show no behavioural signs of hidden frustration. It is the spectre of a society where social control is so total and so effective that members can be prevented from even forming desires which cannot be easily satisfied, a society of happy slaves, genuinely contented with their chains. However, it is argued that such a state is a nightmare, not a view of a state of society which is at present possible or which has been recorded as experienced. Even if such total control could exist, it is argued that we can extract from the "cultural tradition and history" standards of what the "good" or "better"

life is. These views may be found expressed in certain works of art, in religious or metaphysical doctrines, or may be derived from aesthetic or religious experiences. If agents genuinely believed all which utopia could offer has already been realized, then the role of the critical theorist is to enlighten the social agents about how much more of the utopian content of their tradition they could realize.

Now the admission of cases (3) and (4) as subjects of emancipation suggest that the critical project could be somewhat of an elitist, expert-governed enterprise. Society appears to be criticized not because of the experienced suffering it imposes on some oppressed group but because it fails to satisfy the aesthetic sensibilities of a cultural, "civilized" elite. It raises images of the Expert in society and in academic research - denouncing particular societal forms purely because they do not accord with higher opinions of a New Jerusalem. If this were the case, then the very notion of critique, of critical evaluation of institutions and societies, would be potentially repressive. However, as Guess (1981) points out, there is no intrinsic reason why this approach need be elitist. The agent in the society may be perfectly content, but, if they were released from some unperceived coercion, they might come to realize that their mode of existence is lacking in dignity or self-directedness etc.; any agent might be quite capable of realizing this and of initiating new desires. In other words, there is no imperative for enlightenment and emancipation to be along expert-defined lines. Indeed, the very ideal of emancipation is to enable unconstrained discourse in the formation of needs and desires. In addition, discursive will formation is intended at all times to be a democratic process and a critical theory can only be definitively confirmed to the extent that it is freely accepted or rejected by agents in the ideal speech situation. We are not and are unlikely ever to be in the ideal speech situation but we still may be able to tell in a relative sense which concrete situations are closer and which weaker approximations

of the ideal speech situation; the closer a given situation approximates
to the ideal, the greater weight the agent's expressed assent or dissent
should be. This assent or dissent cannot be obtained but in a situation
of a free flow of uncoerced interaction between and among the actors and
between the actor and the theorist. Thus the "expert" must continually
consult with the actors throughout the entire operation of attempting to
free agents from domination. The democratic implications of this model of
a theorist-society relationship should not be ignored for it implies that
an ideal speech situation can be institutionalized only in the democratic
form of public discussion among the citizenry. The theorist may perform
an educative role, even an "expert" one, but the manner in which his
expertise is channelled is radically different from that of the objectivistic
positivist scientist. Thus we argue that the concept of critique, of
evaluation is not intrinsically ideological, it depends on how we evaluate,
who we evaluate and the purpose of our evaluation.

5.5 A Statement of Habermas's Assumptions which are Accepted

In this thesis we shall set up an integrated theory of O.E. which utilizes the information provided at the technical, hermeneutical and critical levels to take account of the four difficulties we have discussed. Here we wish to provide a statement of the assumptions behind Habermas's argument and which also underlie our proposals for an integrated theory of social phenomena to the extent that we have accepted his propositions. The first of these assumptions is an assumption which is brought from conflict theory, namely that conflict concerning action orientated to institutionalized norms arises only when the consensus governing the distribution of opportunities for satisfying needs breaks down. That is, the conflict can come to consciousness only within the hermeneutical categories of the interpretative system obtaining at that historical time. When conflict arises action oriented to norms gives way to risky strategic action which criticizes and seeks to change these norms. This assumption in turn requires an empirical assumption that the interests that actually emerge in conflict situations coincide sufficiently with the interests that the same parties would express if they were able to enter discourse at that time. A methodological assumption is also made, viz, hidden interests can be reconstructed even in cases where there is no manifested conflict and these interests can be brought to the conscious mind in such a way that it would lead to conflict (dissatisfaction), a desire for change and strategic action. These assumptions undergird the "advocacy model" of critique which we have discussed. The critique would involve a comparison of the existing, historical normative structures of a society with those which hypothetically would be the case if norms were arrived at discursively. Using such indicators of potential conflict as levels of felt frustration, politically permitted levels of satisfaction, or the differences between legal and social norms and legal/social reality, or codified rules of exclusion which distinguish one social collectivity from another, a result could be obtained which would indicate the nature and level of ideological repression.

The second assumption which is accepted is that confirmation of critique can only be secured via the agent's assent in a situation of rational consensus. This for Habermas is the ultimate criterion of truth and of the correctness and rationality of norms. But what does acceptance and assent mean in practice?

Suppose that the agents have adopted the criticisms of the theory and act to put its recommended course of action into effect. In order for the critique to be confirmed then the proposed "final state" must eventuate; if it does not, or if the final state turns out to be inherently unstable, the critical theory is disconfirmed. If the proposed final state is reached (and is stable) the agents in this state must freely agree that they have been enlightened and emancipated, and that the critical theory gives a correct account of the process of emancipation and enlightenment. They must agree that their former state was one of bondage, frustration, and delusion, as described by the critical theory and that their present state is one of increased freedom and satisfaction, and one in which they have a more correct view of their interests. Finally they must freely acknowledge that awareness of the critical theory and the process of reflection it initiated was the mechanism of their emancipation. If the agents refuse any part of this complex free assent, i.e. when they are in an ideal speech situation, the critical theory is disconfirmed. For example, this would result if, for instance, having experienced the "final state" they decide that they were better off back in the original state.

Our third assumption, which represents an extension of Habermas's argument, is that emancipation is synonymous with the removal of material institutions and practices which legitimate repression. It is also synonymous with individuals freeing themselves from pathological states of anxiety and distorted communication - a theme which will be explicated later. That is, it is not enough that the oppressed agents no longer voluntarily co-operate in their own frustration, there must be a change in the basic social institutions which does away with the experienced suffering and the restriction of human, individual

possibilities which motivated the agents to adopt the critical theory. Thus

there needs to be an integration of emancipation at the individual, group,

institutional and societal level. Such a requirement also means that the

dominant class should also accept the critical theory. The theory is addressed

to both the disadvantaged and oppressed group and the dominant class. And it

is the clear intention of   critical theory that if the agents in a particular

society have been emancipated from ideological delusion and coercion, they must

all, including the former dominant class, agree that they prefer their present

emancipated state to the former "initial" state of false consciousness and

unfree existence. As pointed out earlier, members of the dominant class are only

in an advantageous position within the given social system. This in no way

implies that the members of the dominant group are not themselves also massively

frustrated and so implies nothing about the social system they would prefer, if

they had free choice. Unlike Rawls, Habermas does not postulate a veil of

ignorance whereby in a risky situation all members of a society would argue

for a "minimization of regret" principle. So if the process of emancipation

and enlightenment is a true one the members of the dominant class should at

the end of the process recognize and agree that their privileges were opiates,

modes of gratification which served to mask the much more serious and pervasive

forms of frustration from which they suffered. This third requirement highlights

in what sense self-reflection per se is a necessary but insufficient condition

for emancipation. Self-reflection needs to be supplemented by strategic action

geared towards the removal of existing structures of repression.

This requirement also explains why resistance to a critical theory could

result. As discussed, *Herrschaft* represents an unequal distribution of normative

repression and ideological false consciousness differs from neurosis in that

dominant groups will seek to maintain it; and powerful groups may seek to keep

a practice or institution in existence despite the fact that increasing numbers

of agents realize that it is repressive. In addition, social inertia could

also play a role in resisting emancipation. Hence, enlightenment does not

automatically lead to emancipation. What it does lead to is a break in the compulsion to believe in the legitimacy of repressive social situations. By accepting the legitimacy of such institutions, the agents themselves have been reproducing and co-operating in their own frustration. Reflection, at least, frees agents from an unconscious complicity in thwarting their own real and legitimate desires. Emancipation will usually require a long course of political action. Until that course of action has been completed, repressive institutions will continue to exist for even enlightened agents and the critical theory will remain as yet an unconfirmed theory.

Our fourth and final assumption is that we accept the emphasis which Habermas places on the process of achieving truth. That is, the ultimate criterion of truth and of an integrated theory is the extent to which discursive will-formation is promoted and realized. Following Habermas we agree that the purpose of theory is to elucidate and advance the process whereby needs and desires may be the subject of an unconstrained, democratic discourse, a discourse which is free from domination and repression, a discourse which is based on the rule of the "better argument". Like Habermas, we do not attempt to posit a specific welfare norm to be the ultimate value position, the emphasis is on the process whereby such a norm may be evolved. We recognize that such a position is weak in the sense that it does not instruct agents to adopt a particular value position. But on the other hand, why is there an ontological imperative that such an instruction be given? Admittedly the concept of communicative competence does not at present solve competing value disputes, say between Marcuse and Rawls but there is little explanation of why such a requirement should be made and met. Held (1980) persistently argues that disputes between competing value positions should be resolved and criticises critical theory for not providing this answer. But he does not give a coherent argument why philosophically such an imperative is prior to any analysis of the process whereby discourse may be achieved. Surely we cannot arrive at a rational consensus of what society and organizations should be doing if the opportunities

for unconstrained participation amongst social actors are not present.

5.6 A General Framework for an Integrated, Critical Theory of O.E.

From the discussions to date it is clear that an integrated theory is a very complicated conceptual object; it is aimed at a particular oppressed group in a particular society and aims at being their self-consciousness in a process of successful enlightenment and emancipation. A process of enlightenment and emancipation is a transition from an initial state of bondage, delusion and frustration to a final state of freedom, knowledge and satisfaction. An integrated theory, by being built on Habermas's theory of communicative competence, is not a utopian fantasy, a dream of an ideal state which we could say neither whether it was theoretically possible nor how it might be realized. For Habermas's rational reconstruction of man's competence argues that a transition from a constrained state of society (the initial state of the process of emancipation) to some proposed final state of emancipation and enlightenment is intrinsically possible. It has already been anticipated in the structure of speech itself. Thus an integrated theory argues that the final state is theoretically possible given the capacity of the human species and the developmental logic of the forces and relations of production (which are conceptualized into technical - analytic and practical learning). That is, given the developmental logic of the evolution of the individual and society in general, it is possible for society to function and reproduce itself in the proposed state. It is also possible to transform the present state into the proposed final state by means of specified institutional or other changes.

An integrated theory therefore avoids the charge of utopianism, and it also escapes the charge of orthodox scientism and determinism. The Frankfurt School takes as an important distinguishing feature of their critical version of Marxism (and a sign of its superiority over more orthodox versions) that they do not categorically predict the "inevitable" coming of the unrepressed, classless society. They argue that their theory of society claims only to

give knowledge of the "practical necessity" of a transformation of the present social order. That is, the Marxist knows that the agents in the society have an overwhelming real interest in bringing about a classless society but this does not mean that the transformation is inevitable. Whether or not it will occur depends on all kinds of other factors which the theory may not allow us to predict; in particular it depends on whether large numbers of agents find the critique plausible, adopt it, and act on it effectively.

agents about how they ought rationally to act to realize their own real interests. It seeks to point out the process whereby agents are able freely to determine their interests, needs and preferences.

An integrated theory thus begins with an object or group for investigation whose fundamental nature and meaning is being called into question. It employs traditional forms of empirical and hermeneutical knowledge as an essential means of gaining data and exploring possible interpretations. It seeks to measure and tap both the forms and the extent of the agent's frustration, experience and suffering as they themselves describe it. It is essential that at the first instance, access to and an understanding of the agents' language and mode of expression is obtained. This is because a critical theory which is integrated is only confirmed at the practical level when agents freely assent and act upon it. Clearly, for this to happen, a critical theory must be expressed in a form which is comprehensible to the agents addressed and which allows them to recognize it as a description of their own situation and use it as a guide for action. Secondly, if the "dual consciousness" which Giddens (1977) speaks of is present, then it is likely that agents are able to speak of their everyday frustration and suffering in a radicalized manner which clearly pinpoints the sources of constraints upon their thought and action. These agents may not be able to link macro-societal relationships and political institutions to their micro-level problems (hence the postulated dual consciousness) but their radicalized interpretation would help in the

critique and identification of contemporary social practices and institutions which prevented a rational, free consensus. For both these reasons it is important that a deep understanding is obtained of the agents' language and way of communicating with each other.

Nomological knowledge is also required in order that we may study the interaction, coupling and interactions between certain processes or "variables". At a first instance, it is important to know that agents experience "job dissatisfaction" or that they experience "a lot of anxiety at work". It is also informative that statistically there is a significant correlation between agents who experience high levels of dissatisfaction and high levels of anxiety. For the identification of such patterns of responses, although gathered on a questionnaire basis, is nevertheless a facet of the agents' construction of their world. And such measures of frustration, limited though they may be, do help to identify the complex, multi-interactive processes which operate at the individual, group, organizational and societal level and which constitute or reproduce the forces and relations of domination and ideology.

But obtaining empirical relationships and hermeneutical meanings is insufficient by itself in order to achieve the goals of enlightenment and emancipation. We need to move beyond traditional interpretative techniques because the subjects' accounts of their behaviour would include meanings which remain opaque due to distortion and repression. In the example of a quasi-causal relationship between job satisfaction and psychological anxiety, the positive correlation which is significant can support two inferences: (a) a technically-interested one which argues that in order for the worker to be satisfied and to produce more, sources of anxiety must be controlled; or (b) an emancipatory-interested argument which shows that one of the barriers to an unconstrained discourse between nurses and patients and between various grades of nursing staff is the inability to

cope with psychological anxiety; which is projected and introjected into collective organizational defence mechanisms and which, when interlocked into a bureaucratic division of labour and patient powerlessness become objectified into macro-level institutions of repression. When the components and sources of job satisfaction are teased out and its links to psychological anxiety discerned, the critical theorist may be better to integrate the psychological and sociological facets of a "fluid reality". Thus, the identification of patterns of relationships and of relatively stable associations between observations of behaviour is essential in clarifying the issues for critique. So is a depth hermeneutics which seeks to integrate a study of meanings with a study of relations of domination.

This discussion shows that the bulk of the empirical work of a critical, integrated theory is to show that a transition from the present state to the proposed final state is "practically necessary". That is, empirical relationships and hermeneutical measuring systems should reveal that the present state of the agents is one of reflectively unacceptable frustration, bondage and illusion. This means that the present social arrangements cause both conscious and unconscious forms of pain, suffering and frustration and the agents in the society only accept the present arrangements and the suffering because they hold a particular world-picture. This world-picture is in fact ideologically false, i.e. it is one which the agents acquired only because they were in conditions of coercion. Such are the demands of an empirical, critical social theory.

In addition to specifying empirically the present state of illusion, an integrated theory also asserts that the proposed final state will be one which will lack the illusions and unnecessary coercion and frustration of the present state; the proposed final state will be one in which it will be easier for the agents to realize their true interests. It further argues that the transition from the present state to the proposed final state can come about if the agents adopt the critical theory as their "self-consciousness" and act on it. The theory is then confirmed if the final state eventuates, is

stable and the agents _freely_ agree that their former state was one of frustration, as described by the critical theory and their present state is one of increased self-autonomy and satisfaction, and one in which they are able to participate in the definition of their needs and interests. Guess (1981) argues that a critical theory need not be the sole and only means of emancipation and the adoption of a critique is not strictly necessary and sufficient for real emancipation. That is, emancipation could hypothetically have come about in some other way and be activated by some other catalyst. Also, it is not strictly necessary for confirmation of a theory that it be the only means of enlightenment and material emancipation. Nonetheless, it is probable that the Frankfurt School implied that a condition of the acceptability/ confirmation of a critique was that it be the kind of thing agents _could_ adopt as their self-consciousness. The assessment of whether a critical, integrated explanation of processes _could_ be accepted by agents if not for the existence of resistance from the dominant classes is a question for empirical investigation. As a first requirement the critical theorist should make sure that his critique captures the language of the agents in all its complexity, and expresses itself in a language which is comprehensible to the agents addressed. The Frankfurt School terms this requirement of a critical explanation: the hermeneutical requirement for the acceptability of a theory. A critical explanation of ideology must be understandable to the agents to whom it is addressed.

Finally, a critical explanation should set forth the means whereby a free existence might be achieved. A critical theory does not advocate the acceptance of a particular value position. It advocates a process of free discourse and the means whereby such a rational discourse may be achieved. That is, a critical theory should show how, given the present development of the forces of production, it is feasible to achieve the proposed state and how it is feasible for society to function and reproduce itself in the final state. Without this requirement, an integrated, critical theory would come up against the charge of utopianism yet again. Further, implicit within such a specification

of the means whereby distorted communication be dissolved and emancipation instituted, would be an assessment of the feasibility of such a transition from the initial to the final proposed state. Clearly a critical explanation should assess whether it is practically possible, meaning possible in practice, to transform the present into the final state by means of specified institutional, social or political changes. Indeed, Guess (1981) argues that an essential part of a critical theory would be one that argued convincingly that a transition to the final state is "objectively" possible - i.e. given the forces of production currently available in the predictable future, it is possible for society to function in its proposed state and a radical transformation is feasible. Guess's requirement is stronger than ours in that he interprets Habermas as requiring a critical theory which is based on an established argument that transformation is definitely possible given the resources available to man. We, however, argue that critique may be initiated prior to the establishment of such evidence but that as part of the critique an assessment of the feasibility of the theory's recommendations for change be made in the knowledge of available resources. The difference, though slight, is significant for instead of critique following an assessment of the feasibility of transformation, critique and this assessment is conducted interactively and simultaneously. For how is it possible to assess the feasibility of transformation if we have not even identified in detail the sources and structures of false consciousness? Guess's model of a critical theory (page 76) ignores the vitality of feedback loops and appears to see the process of enlightenment and emancipation in over-rigid chronological terms. He appears to insist that a feasibility study be carried out prior to the self-reflective identification of false consciousness. To us this rigid setting of A first, then B militates against the dynamic nature of critique which is illustrated in the following summing-up diagram of the cognitive structure and confirmation of a critical, integrated theory of social analysis.

Object under review; obtain empirical knowledge
of relationships and a hermeneutical understand-
ing of their mode of communicative interaction.

**Cognitive
Structure**

Interpret both these forms of knowledge with a
critical interest of identifying domination and
ideology.

Employ both Habermas's concepts of depth
hermeneutics and quasi-causal explanations.

Assess the feasibility in practical terms of the
proposed state and of the transition from the
present to the future.

Specify detailed changes which if adopted will
bring about a final state of a "free existence".

**Criterion of
Acceptability
by Agents**

Do the agents accept these criticisms and
recommendations for radical change? Is the
critical theorist writing in a language which is
understandable by the agents to whom it is
addressed?

**Criterion of
Confirmation
of Theory**

If the agents accept the theory and act on it,
does the final state eventuate in a stable form and
do the agents freely assent that their previous
state was one of the bondage and the present one,
one of greater freedom and happiness; both states
being as described by the theory?

Diagram 5.3: An Integrated Form of Social Analysis

------   Feedback Loops

As the diagram seeks to display, each "step" in the formulation, acceptance and confirmation of the theory is interlinked such that each "step" is not a true step at all. There is no suggestion that each element in the total process is independent and continual feedback loops occur between the elements.

Bearing this dynamic model of an empirical, hermeneutical and critical mode of social analysis in mind, we set out in this thesis an integrated theory of O.E. which has as its ultimate purpose the enlightenment and emancipation of organizations and individuals. The theory is built on a model for identifying micro-level and macro-level constraints to an ideal speech situation, thereby gaining both psychological and sociological insights into domination and repression. It also seeks to use nomological and hermeneutical knowledge in the manner outlined above in order to achieve its ultimate emancipatory interest. In this manner, our model for an integrated theory of O.E. avoids two of the criticisms we have levelled at Habermas's work. In order to avoid the other charge of painting society as an homogeneous whole, we have deliberately set a model of hermeneutics which is tightly coupled to issues of power and of maintaining control. These hermeneutical meanings, when used critically, show that meaning systems are themselves repressive systems, geared towards maintaining the control of dominant interest groups in an organization. Finally, our model of an integrated theory of O.E. does not utilize in any way Habermas's or Marcuse's concept of survival and of survival-related necessary and unnecessary repression. Following Guess's suggestions *Ideologiekritik* begins from the benchmark of an ideal speech situation; those needs which are formed discursively are by definition legitimate needs and those which are not are ideologically false.

Chapter 6: The Process and Methods of Research

Stereotype Qualitative Researcher: "Many people these days are bored with their work and are..:......."

Stereotype Quantitative Researcher: "What people, how many, when do they feel this way, where do they work, what do they do, why are they bored, how long have they felt this way, what are their needs, when do they feel excited, where did they come from, what parts of their work bother them most, which.......?"

Stereotype Qualitative Researcher: "Never mind."
    (P. 519, Administrative Science Quarterly, Vol. 24, 1979)

"People who write about methodology often forget that it is a matter of strategy, not of morals. There are neither good nor bad methods but only methods that are more or less effective under particular circumstances in reaching objectives on the way to a distant goal."
    (p. 330, Homans, 1949)

"Every data-gathering class-interview, questionnaire, observation, performance record, physical evidence - is potentially biased and has specific to it certain validity threats. Ideally, we should like to converge data from several different data classes, as well as converge with multiple variants from within a single class." (p. 35, Webb, 1966)

6.1 A General Case

The purpose of this chapter is to set out in detail our process of research and the methods of research employed. In so doing we wish to explain our rationale for choosing particular methods and to argue that research methods cannot be evaluated or chosen in isolation. They must be seen in the context of our whole research philosophy and theoretical argument. As the above quote comments, there are no "good" or "bad" methods, there are only more or less efficient ones.

The specific use of methods in this research have been guided by two basic rationales: (a) the desire to obtain multiple observations and measures of a single event or process in order to increase the level of empirical validity of our findings and conclusions; and (b) to integrate methods from a variety of disciplinary matrices in order to obtain an integrated understanding of the phenomena being studied. In particular, efforts were

made to integrate and use both "quantitative" and "qualitative" modes of data collection and analysis. "Hard" and "soft" data are felt to be of equal importance in offering insights and are complements rather than substitutes for one another. Further both real-time and historical data is used in a longitudinal study of our research organisation.

The process of using multiple methods to obtain observations of a single event/process is not new. In a now celebrated paper Campbell and Fiske (1959) discuss the validation process in terms of the multitrait, multimethod matrix. Webb et al (1966) too argued for the necessity of choosing a collection of methods in order to avoid the concentration of similar weaknesses. Recently, this so-called use of various methods of data-collection has been termed "triangulation" (see Denzin, 1978; Jick, 1979), a metaphor borrowed from navigation and military strategy that use multiple reference points to locate an object's exact position. Given basic principles of geometry multiple viewpoints allow for greater accuracy. Similar organizational and accounting researchers can improve the accuracy of their judgements by collecting different kinds of data bearing on the same phenomenon. When the phenomenon under study is the complex concept of organisational effectiveness, such triangulation is arguably vital.

6.2 The Choice of a Case-study Approach

The majority of our empirical work was conducted within a large school of nursing in the north of England. This was an Area School of Nursing, administered by the Area Health Authority and run by a Director of Nurse Education. The School was responsible for nurse training in some thirteen basic and post-basic programmes and supplied experience in two large health districts. The Sourthern District encompassed ten hospitals and specialist clinics, whilst the Northern District technically encompassed five hospitals and four annexes and adult training centres.

The methodological problems of studying a single micro-organization have often been raised in the literature. For instance, a case-study methodology that involves only one single focal F-set is often accused of being non-generalizable and statistically invalid. That is, though it is recognized by researchers that case studies often provide rich thick descriptions of the phenomena under study it is 'concluded' that a sample of one does not provide any basis for scientific generalization. Inferential statistical procedures apparently "demand" that the number of cases studied be equal to or greater than the number of variables being tested. Even qualitative researchers appear to give in to the greater knowledge of statisticians and Bateson (1979) himself points out that single examples do not illustrate patterns. It would appear that where there is a single data source with an N of 1, the effects of measurement and of the features of the case are confounded.

In addition to this issue of non-generalizability, there is the related argument that case studies are appropriate only for generating hypotheses but not for testing them because of their statistical limitations. Further, it is pointed out that the methods of generating information in a case study, the treatment of data extracted from it, the mode of presentation of information, the procedures for reasoning about the data, the rules for judging the validity and reliability of the observations, the ways of relating the information in the case to other information, etc., are all less well-defined than in traditional sample surveys.

We contend that case study analysis, by which we mean a methodology that examines a contemporary phenomenon in its real-life context, has much to offer the accounting researcher. A case study is, if you like, a "little system" study while a multi-case study is but a "bigger system" study. Both types of study face precisely the same problems of generalization and the former is different only in the case of being concerned with a smaller system. Further, as will be demonstrated in chapters 11 and 12,

even the study of a single micro-organization,("little system")cannot be divorced from a simultaneous analysis of the societal environment within which it is situated. In other words, even our use of the words "little" and "bigger" systems analysis does not quite capture the richness and "bigness" of the case study method. For an analysis of a case is never just that, a single micro-organization cannot be understood prior to an analysis of the historical, macro-societal context within which it nestles; its relations to other institutions, other agencies, other cases must be analysed at the same time. So, to what extent is a case study a case, a study of one organization, when by focussing on one, we similarly focus on a multitude of others? Moreover, what counts as one case? One bed, one patient, one ward, one hospital, one district, one Regional Health Authority, one society, one earth? When is a system too small and when is it adequate? Even Adorno's study of the Authoritarian Personality, which was conducted via large-scale questionnairing was considered inadequate to establish that a society possessed this characteristic. How big should our samples be? Perhaps we would be better served as a social science community if we take note of Ashby's (1956) arguments that there is only a certain amount of control (of information) within a complex system. And no matter how sophisticated are our measuring instruments, our difficult calculations, our large samples, there is only so much information to be obtained and not more. Further the criticism that case studies cannot be repeated, is equally true of multi-organizational studies. To begin with few replication studies are conducted even when large-scale sampling was used in the first instance and no replication study can replicate the social, historical context within which research is conducted. The point is, all researchers are looking at a series of case studies and this applies in the absence or presence of pieces of paper called questionnaires or standardized scales of personality.

Also, are large samples always to be desired? Perhaps one or two exceptions to the rule may have greater social impact but these are precisely the kind of exceptions which large-scale sampling regards as non-significant statistically. The concept of sampling was originally conceived in order that we did not succumb to obscure myths but the virtue of large-scale sampling is so extolled that we are in danger of ignoring vital, perhaps infrequent, occurrences and events.

Further, the generality of case studies can be maintained by the use of multiple cases, multiple data sources, methods of observations of the same phenomena and multiple techniques within a given method. Convergence or agreement amongst these different methods of data collection would indicate that the results are valid and not a methodological artefact. For instance, "across method" triangulation of a particular phenomena helps to establish the external validity of the theory and concepts whilst "within-method" triangulation helps to establish the internal validity and consistence of concepts (Jick, 1979).

This last point in fact answers critics who may feel that case study results do not test hypotheses. Hägg and Hedlund (1979) point out that there is always knowledge in the form of theories formulated by the case researchers themselves or by others on to which individual cases can be mapped so that valid conclusions can be drawn from the assembled body of knowledge. Further, if the observation of the phenomenon under study required in-depth investigation, hypothesis testing could be most appropriately conducted using case studies.

Finally, there is much evidence to show that case study analysis provides rich insights into the functioning of organizations. The work of Tinker (1975), Pettigrew (1973), Baldridge (1971), and Nahapiet (1981) reveal that case studies provide a wealth of information.

In particular, they afford a holistic analysis of data and appeared the most logical manner of investigating the processes by which specific criteria

of O.E. rose in importance and the way in which they were interlocked with micro- and macro-power relationships. Like Pettigrew (1973) we had little prior empirical knowledge of these process issues of the theory of O.E., of the precise manner in which a feasible strategy was implemented, changed and evolved. The F-set and its contents has remained, till now, a black box and it was considered prudent to open it in detail within one organization. Besides, as Mintzberg (1979) testily complains:

> "What, for example, is wrong with samples of one? Why should researchers have to apologize for them? Should Piaget apologize for studying his own children, a physicist for splitting only one atom? . . . given that we have one hundred people each prepared to do a year of research, we should ask ourselves whether we are better off to have each study one hundred organizations giving us superficial data on ten thousand, or each study one, giving us in-depth data on one hundred. The choice obviously depends on what is to be studied. But it should not preclude the small sample, which has often proved superior." (p. 583, Mintzberg, 1979).

In conclusion, we would add that it was through the richness and intensity offered by a holistic, deep immersion in the life of the research organization that led to a development of an integrated theory of O.E. via a hermeneutical analysis of the deep structures of organizational language and discourse. It was because I spent so much time within the organization, talking to the participants, working alongside them, that I was better able to understand the parameters within which their world was constructed. And to locate ideological sources of repression in the way in which particular levels of the organizational hierarchy mobilized visibility and bias to specific directions. Had I not been provided such a form of inquiry, the insights gained and reported in this thesis would have been totally different.

6.3 The Choice of Participant Observation and Ethnography

"Many people feel that a newspaper reporter is a far cry from a social scientist. Yet many of the data of social science today are gathered by interviewing and observation techniques that resemble those of a skilled newspaper man at work on the study of, say, a union strike or a political convention. It makes little sense for us to belittle these less rigorous methods as "unscientific". We will do better to study them and the techniques they involve so that we can make better use of them in producing scientific information".

(p274, Dean et al, 1967)

Participant observation was employed in a limited way at the beginning of the study and was used to a significant extent during the later stages of the study when the researcher worked full-time on the wards of the two large general hospitals in the Northern and Southern Districts of the Health Authority for a period of 2 months. The term "participant observation" is however somewhat imprecise for it implies the use of a single method of data collection - that of direct observation. In reality, this was not so. Our use of the term "participant obsevation" thus refers to a blend of methods and techniques that were employed when the researcher spent a considerable amount of time actively interacting in the field with the subjects of study, and took on a formal role as a member of the focal F-set. The work involved a good deal of direct observation of participant behaviour, note-taking, some collection of documents and an inherent unstructured-ness and unstandardization of methods and procedures.

Because our aim was to study processes of a political and hence delicate nature and to determine within limits of inherent ambiguity what "actually" went on, it was felt that the best possible way was to live with certain participant groups. As is often observed, few people will openly acknow- their political interest and involvement in legitimation activity. Those who act politically usually claim that they are acting in the public interest or in our case, the interest of the wider profession. In addition, the researcher would have the time to build up a trusting relationship which enabled the collection of sensitive information and the access to

managerial meetings.   Our official project was to study nurse selection
and turnover and it would have been very difficult to gain access to
managerial meetings on that basis alone. Without some level of trust
nurse managers and educational staff would not have been persuaded that
attendence at such meetings would throw light on the issue of nurse
turnover. Also, participant observation allows the researcher time to
ease himself into the field at an appropriate pace and thereby avoid
rebuff by blundering into sensitive situations or subject matter. Further,
the researcher is more able to pick up "charged cues" which result from
being more attuned to the nuances of organizational life and he is thus
more able to make use of the knowledge of selected informants and surrogate
observers who are able to provide the results of indirect observation.
Such informants are vital because the investigator cannot be at all places
simultaneously. Also, he may not be aware of the historical factors
relevant to a particular situation. The use of well-placed informants
can add valuable information to the research. However, the researcher
needs to have gained the confidence and trust of these informants. Only
then is he able to carefully and subtly question knowledgeable informants who
were present as eye-witnesses to events from which the researcher was
absent. Such advantages of participant observation are clearly important
when the research problem is defined as a study of sensitive processes as
well as content.

Also, there was a new sub-language of jargon to be learnt. This
applied particularly to the use of technical words. In addition, a quick
ear in a strange social context soon realized that language itself was a
research subject for it was a primary means by which a link is forged
between the world and perceptions of it. The closeness of intense parti-
cipant observation enabled the realization that it is through language
that the encodation, decodation and emplotment of social drama takes place.

And the "organization" is then a label with a set of domain assumptions

about the semantic space in which it operates, and a set of

meanings that are tacitly assigned to behaviours.   For example, there is a

special significance attached to the wearing of a particular hospital badge

in a large, new general hospital formed by the amalgamation of several

established hospitals.   .In addition ., the statement "What do you expect

of a Nursing Officer from the Royal!" bears at least three second-order

implications: (1) the role relationships amongst nursing superiors and sub-

ordinates; (2) the competitive loyalties of different hospitals and schools

of training; and (3) the history of ill conceived amalgamations and struc-

tural changes in the nursing profession as a whole.   Such background, taken-

for-granted assumptions are perhaps one of the most difficult phenomena to

elicit.   They represent creative leaps that result from an in-depth exami-

nation of the linguistic categories used by informants in the setting.

However, the use of participant observation has also generated and

given rise to more criticism and controversy than any other method of re-

search.   Riley (1963) suggests that participant observation studies are

subject to "control effect" and "biased - viewpoint effect".   The former

is present when the measurement process itself or/and the measuring instru-

ment (observer) becomes an agent working for change: "the difficulty with

control effect in participant observation, and in many other research designs,

is that it is unsystematic.....".   (p. 71, Riley, 1963.) The biased viewpoint

effect includes the selective exposure, perception and reporting of "exotic data

and the possible shift over time of the calibration of observational measures.

It also includes the fears of Vidich (1955) and Miller (1952) of over-

support and of the researcher "going native" such that he is no longer able

to objectify his own experiences for research purposes.   In committing his

loyalties, the researcher so develops his own vested interests and/or emotions

in the subject under study that the advantage of intimate observation and

participation then becomes a threat. It is also pointed out that there are obvious limitations on the observers' ability to witness all relevant aspects of the phenomena in question and that the use of key informants may be suspect as the investigator may not know whether the "truth" is being reported. Finally, as the participant's experiences, always operates in the borderland of his participant's experiences, he has to impute meaning to their actions, how can an external person assess the validity, reliability, precision and relevance of the data collected? If measurement and sampling procedures, for example, are as unstandardized as methods of participant observation, can we have any significant confidence in the resulting data? Would any two investigators come up with equivalent results and observations? Are data obtained early in such a study comparable with those obtained later, or has the researcher altered his framework over time such that early and late data are quite different entities? Are the data valid indicators of the underlying phenomena?

Such questions are clearly important and deserve the most serious consideration but our answers are relatively difficult to establish, for the standard statistical means of ascertaining the validity and reliability of data-collecting operations are largely inapplicable. There is no doubt that from time to time and in significant ways, the researchers' presence in the wards and the school of nursing influenced peoples' attitudes and behaviour. For example, ward staff were anxious to assure me that slack periods of ward activity were "one of these days" and "it wasn't normal". Informant bias is always possible; positional bias is yet another important aspect of the data. Nevertheless, safeguards have been built into our use of participant observation.

Firstly, the key tactic lay in the use of multiple indicants of any particular phenomena and an insistence on a very high degree of consonance among these indicants, tracking down and accounting for any contrary indicants. This meant the corroboration of a single observation with other

observations, documentary evidence, questionnaire responses and interview data. For example, it was observed that role ambiguity on one ward significantly affected the level of job dissatisfaction, this was counter-checked by observing behaviour on other wards, and interpretating statistical measures obtained by survey methods.

Secondly, in order to counter any control effect observations of behaviour were delayed for two days on each ward and one class period in the school to ensure that some degree of familiarity had been engendered. This familiarity was important in order that the researcher was not regarded as a management spy and was gained by the researcher displaying a genuine ignorance of nursing work and therefore classified as a low-grade nursing auxiliary. The researcher in fact performed tasks normally performed by nursing auxiliaries on the ward.

Thirdly, the risk of "going native" was in fact experienced, identified and countered. The experience of "going native" was not that the observer became over-identified with the views of a participant group or with the viewpoint of a particular faction of these participants. This was, successfully avoided by the extensive discussion of problem issues with senior informants in each of the primary participant groups in the F-set. Student or learner nurse responses were recorded, so were those of the nursing service in hospitals and that of nursing staff in nurse education. In addition, interpretations, first and second-order concepts were checked with knowledgeable outsiders, like other researchers. The experience of "going native" in fact arose when the observer had been in the field for a long period of time and had become so familiar with the organizational world, or so it appeared, that nothing new or significant seemed to be happening. She had in fact become immersed in the language and symbols of this social context that like the actors, these objects were becoming a background expectancy, a taken-for-granted part of her construction of nursing reality. Such a danger was clearly recognised by early anthropologists and ethnographers and George

Spindler, a key figure in educational anthropology has said that "no anthro-pologist-of-education-to-be should start his or her first significant piece of empirical research in a school in our own society". (quoted in Wolcott, 1975). That is, a participant observer needs to immerse himself and yet remain dry and distant, to have a porous skin but a skin nevertheless. In order to counter this effect more time was spent discussing interpretations with colleagues at the University, thus spending less time on site; multiple parti-cipant group interviewing was also initiated around similar topics, say, the defining criteria of effective nursing, such that diversity of views was introduced more formally in the data collection process. This in effect amounted to increased physical and psychological distancing from the over-whelming effect of being constantly in the social context of the researched. In addition, care was taken to hear the views of different participant groups, say night staff at hospitals as well as day staff and the opinions of similar participants within a group but who were differentiated by rank or number of years within the organization, say third-year and first-year learners. This helped to counter the perception of familiarity as different interest groups often had different and conflicting views which contributed an element of unpredictability in the analysis of the system. The feeling of strangeness returned.

Fourthly and finally the researcher realized that her role changed with increased interaction with participants over an extended period of time. Initially we presented ourselves as researchers doing a study on "what good nursetraining and nursing is all about, especially with regard to the learner who leaves" and this identification was maintained throughout the research. The qualities encompassed, altered however, with familiarity. In particular, when we approached participants during early stages of the research a high degree of genuine naivete produced invaluable insights into the nuring world. We played and were learners ourselves, inducing participants to instruct us in

the ways of nursing. This role could not be maintained indefinitely. Also, as propositions developed and we began to pin down hypotheses , other kinds of interactional tactics became more valuable: argumentation, for example. This tactic helped to clarify the oft-hidden interests and biases of part- cipant groups and led to detailed explications of what effective nurse training and nursing meant to different interest groups.

As our conclusion, we present a brief summary of the length of time spent in participant observation, the roles undertaken and the centres observed:

1. As a part-time learner nurse. Observations were randomly taken on one 6-week SRN and two 4-week SEN introductory courses.

2. As a full-time supernumerate nursing auxiliary for 4 weeks in the SGH and NGH. At the SGH, 2 weeks were on a mixed-sex medical ward and 2 weeks on a mixed-sex surgical ward. At the NGH, a week each was spent on the following wards: (1) male medical (2) male surgical (3) female medical, and (4) female surgical.

3. As a non-participant observer at monthly senior staff meetings at the nursing school. These meetings were observed for 14 months.

4. Attendance on one single occasion as an observer was also negotiated at the following meetings:

   (a) The monthly meeting of the senior service (hospital-based) nursing staff of the S. District. This meeting is chaired by the District Nursing Officer and attended by Divisional Nursing Officers and Senior Nursing Officers from all the hospitals within the S. District;

   (b) The weekly meeting of the Assistant Director of Nurse Education and the educational staff of the S. District;

   (c) The weekly meeting of the Assistant Director of Nurse Education and the educational staff of the N. District.

6.4 The Choice of Formal and Informal Interviewing

Formal interviewing is used to refer to situations where verbal information is obtained from selected respondents in a formal setting, that is, when both interviewer and interviewee are aware that an interview is being conducted. An appointment was always made prior to the interview as to the interviewee's preferred time and place of interview. In addition, these interviews were structured and a list of formally prepared questions was always used during the course of the interview. Informal interviewing as the name suggests indicates interview information collected on a less structured basis. The interviewee may not even be aware that an interview is being conducted and an appointment was not always made. The most distinguishing facet was that a formally prepared list of questions was seldom in evidence.

Informal interviewing on a group basis was used early in the research as the researcher collected information from groups of learner nurses at different stages of their training as to reasons why learners took days off absent and left training before the full completion date. Such interviewing was deemed more appropriate and was intended to promote greater freedom of expression from respondents.

In addition, it enabled the researcher to hear and understand the demands of learners as an interest group expressed in their language and social context. It is well-known that any social group which has an identity has a culture differing from that of other groups, a somewhat different set of common understandings and background expectancies referred to earlier (see also Becker and Greer, 1957). It was, therefore, essential that our first few months of fieldwork was spent conducting these informal interviews and thereby learning this "native language". Interviews were thus recorded, as far as possible, in the language used which was subsequently analysed to derive consistent, explanatory second-order concepts. This same tactic of informal group interviewing was used for similar reasons in the study of

schoolchildren's expectations about nursing as a form of training and employment. In this event, the informality of the interviewing technique helped in encouraging shy and hesitant school children to speak with a complete stranger, set the scene for a discussion of the topic and the subsequent filling in of an open-ended questionnaire with incomplete sentences. This last instance was in fact the only time when a questionnaire accompanied the use of informal questioning. The use of informal settings in obtaining both verbal and written responses particularly provided flexiblity and served as a brainstorming tool in the early stages of the research prior to the detailed development of data measures and questionnaires. It was also advantageous in "breaking the ice" and helped allay respondent fears about researchers who merely wanted quick answers on questionnaires.

As was discussed in the last section informal interviewing was used to a great extent whilst performing participant observation on the wards as an observer-nursing auxiliary and as an observer-student in the School of Nursing. Such interviews often took the form of extended conversation, discussions and hospital/School "chit-chat" about events and happenings - both routine and nonroutine. Such conversations are termed interviews because they were pursued with a purpose in mind - that of illuminating concepts and processes which had been a priori theorized. The study of events, processes and language moved from an initial semantic emphasis to a behaviouristic one which was interested primarily in the confirmation of our hypotheses, however vaguely formed. Though no formal list of questions was ever in evidence, repertorial questions were often asked with the empirical, theoretical constructs in mind. Posing questions like - "what do you mean by good nursing?" or "so, you think nurse X is a good nurse?" on an ad hoc, informal basis were clearly intended to facilitate our understanding of the construction of facets of effectiveness. As were questions like - "do you see a quick change of teachers as good." or "why do you not like Ward Y?". The first served to provide a measure of intra-systemic variability and the second a measure of systems supportiveness.

The issue of the validity of information obtained from structured interviews raises the more general issue of the validity of interview data per se. There are three main areas of concern: (a) to what extent can we infer from the verbal expressions to a person's "true" position on a dimension that gives his attitude? (b) to what extent can we infer from what a person says to what he thinks? and (c) to what extent can we infer from verbal expressions to a person's behaviour?

In order to reply to (a) and to counter its effects we repeat the principle of triangulation. Instead of relying on interview data alone we supplement with the use of questionnaire information, observations and archival records. Questionnaire information is particularly useful in the confirmation of interview data on a person's attitude for multiple data measures can be combined to give indices or scale measures of an underlying attitude. Further, standard statistical tests of reliability are available on this form of corroboration.

To counter (b) is a much more difficult affair. Do people speak the truth when they are approached by interviewing and anonymity is lost? If "truth" is defined as what they have in mind, obviously no absolute answers can be given. The degree of correspondence between a person's private thoughts and his public expressions are subject to cultural and individual constraints. We have not seen any good data on this, but all experience seems to indicate that "veracity" in the sense of thought - speech correspondence is to a considerable extent a product of culture and socialization. No social scientist working in or originating from former colonial nations (whether they are political, economic, or cultural colonies) will have failed to get this "advice" from residing colons: "Do not trust what people say in interviews. They only say what they think you want to hear, not what they think themselves." It is difficult to evaluate the degree of truth in a statement of this kind. It probably derives from a master-servant relationship and a sense of servility which gave a clear incentive for very scarce positions with access to the

ruling class to please the master. This does not mean that the same phenomenon automatically obtains in research interviews - although it is likely to be true the more similar the interview situation is to a master-servant situation. In addition if the organizational rule is not to criticize the organization to "visitors" and this rule is adopted by the respondent or the individual has difficulty in the language of communication, then it is likely that a divergence will exist between private thoughts and public expressions. In order to avoid such a divergence, whereby only official answers were given, the researcher attempted to gain as much trust with the respondent prior to the interview or the asking of a particular sensitive question. Formal interviews with managerial groups were conducted in the later stages of the research after a period of twelve months had elapsed from the date of initial entry. This meant that respondents were very familiar with the presence of the researcher. Secondly, care was taken to keep up the pace and momentum of questions during actual interviews so that it became too complicated for the interviewee to work out (on the spot) a system of systematic distortions; by having a number of references to events, past and present actions or pure technical knowledge, so as to induce in the respondent a pattern of speaking in a thought-speech correspondence manner, in the hope that there may be a carry-over effect from the relatively "safe" part of the interview to the more value-based, sensitive part. By such techniques the discrepancy between thought and speech was in all probability reduced but there can be no claim that the problem was eliminated. Complete confirmation of thought-speech correspondence can only be effected if we have indicators of thoughts and indicators of speech - since our ability to read thoughts is at best somewhat undeveloped. Such indicators of thought may be obtained from a subsequent interview which brings us back to the same problem. Again, the use of observations, archival data and questionnaire data may help to increase confidence but it is recognized that the problem, if it is a problem, remains.

.We turn now to consider (C) as an objection to the use of interviews as a means of data collection. Brief mention has already been made of this issue which again is based on a naive assumption that there needs to be a tight consistency between words and deeds. Again the degree of consistency will depend on socio-cultural and individual norms; these will be cultures inculcating norms about consistency and others more lenient in this respect, just as individuals differ. This is not simply a question of speaking the truth or not, but conceiving the two spheres - of words and action - as tightly coupled or not. Whereas to some people it seems obvious that if one expresses democratic values then one should also behave democratically in some specified way, to others this is less obvious. Words may be defined as epiphenomenal, as belonging to a sphere of the ideal, whereas deeds are solidities; and the two may belong to different worlds and time dimensions. Hence, action does not always serve as a basis for validating words. In earlier chapters it has been pointed out words may be constructed post-event in order to legitimize action. Further phenomenologists like Schutz and organization theorists like Weick have been known to argue that on a more general, ontological level, meaning is retrospectively conferred to an act; thought and words are, therefore, not necessarily father to the deed. March and Olsen's model (1976) of organizational decision-making pictures organizations as garbage cans with solutions looking for problems. Whilst this is not the place to reopen our debate on rational human action, it is useful to bear these issues in mind and to suggest that available evidence indicates but a loose coupling betweeen words and actions, with no sweeping assumption as to what should be used as a criterion of truthfulness and what should be validated against that criterion. There tends to be an asymmetric conception of non-verbal information as being prior to verbal data. We argue that this should yield to a symmetric conception of the two as manifest data in social research - to be used relatively safely for inferences within their own sphere, and with care for cross-sphere inferences.

Finally, we discuss the problem of interviewer effects. It is old news that the characteristics of the interviewer can contribute a significant amount of variance to a set of findings. Respondents respond differentially to visible clues provided by the interviewer, and within a single study this variance can produce a spurious difference. The work of Katz (1942) demonstrated the differential effect at that time of the race of the interviewer. Age has also been shown to be a factor (Riesman and Ehrlich, 1961) with the number of "unacceptable" (to the researcher) answers higher when questions were posed by younger interviewers. Benney et al (1956) reported that age and sex together produced biases as well, they report:

> "Male interviewers obtain fewer responses than female, and fewest of them from males, while female interviewers obtain their highest responses from men, except for young women talking to young men." (p. 143, Benney, 1956.)

The evidence is, therfore, overwhelming that a substantial number of biases are introduced by the interviewer (see Kahn and Cannell, 1957). We have tried to minimize such effects of interviewer biases by keeping the same interviewer throughout all formal and 95% of all informal interviews. That is, the effect of the interviewer is kept constant in a certain sense; this, however, only alleviates the issue and does not fully account for the possibility that the same interviewer could have radical different influences on different respondents. However, it is believed that such radical differences in responses did not materialize to a significant degree as the interviewer became well-known to respondents and a careful monitor and look-out for such effects did not produce any observable conclusions. In addition, the interviewer took care to dress in a manner which was observed to be the rule within the organization such as to ensure that this factor at least did not prejudice responses.

To conclude we present a summary of the participants interviewed and their position in the system's hierarchy:

1. (a) Learners - both students and pupils on a general nursing course at different stages of their training. Students are learners who sit for a State Registered Nursing certificate (S.R.N.) and pupils

are learners who sit for a State Enrolled Nursing certificate(S.E.N.)

Six group interviews were carried out. (See Appendix 6.1 for a summary)

(b) Leavers - learners who leave training before completion.

2. Educational personnel - nurse teachers or educators whose responsibility is to teach learners, at educational centres and on the wards. Interviews were carried out at all five levels of responsibility: Director of Nurse Education, Assistant Director, Senior Nurse Tutor, Nurse Tutor and Clinical Instructor.

3. Service personnel - ward-based nurses and nurse managers who are directly or indirectly involved with the day-to-day "care of the sick and dying" in hospitals. Their hierarchy is as follows: District Nursing Officer, Divisional Nursing Officer, Senior Nursing Officer, Ward Sister, Staff Nurse, (Learners) and Nursing Auxiliary/Nursing Assistant.

Learners are technically not service personnel as they are unqualified but at ward-level have an ambivalent status which is usually seen as being superior to the nursing auxiliary in terms of skill.

Formal interviews were conducted only from the District Nursing Officer level to the ward sister. Informal interviews spanned all levels and covered both night and day staff.

6.5   The Choice of the Questionnaire

In addition to the interview as a means of eliciting verbal response, the questionnaire was also widely used in our research; nine different sets of questions or questionnaires were designed to tap the information required for a verification of the model of O.E. designed within the technical and hermeneutical levels of interest and the subsequent theory of O.E. framed within a holistic epistemology that incorporated additional insights from the critical level of interest.   The questionnaire was seen as a vital means of complementing information gathered from observation, interviewing and the analysis of archival records.   Its success as a means of data collection is well-known and two advantages were particularly noted: (1) that theoretically relevant data can be obtained in a standardized form at relatively less cost in time and effort than mass interviewing, and (2) questionnaire information is amenable to statistical treatment which means the use of (a) statistical tools of correlation analysis and limited multivariate analysis to test substantive hypothese i.e. propositions about variables on the sample, and (b) the tools of statistical tests of hypotheses about generalizability from samples to universes and populations.   (see Moser and Kalton, 1971; Oppenheim, 1966)

However, the ease with which statistical manipulation (via computerized packages) of social science data may be made makes the questionnaire and statistical tools of analysis a double-edged sword.   On the one hand it is clear that statistics is a powerful, rigorous analytical tool that aids the researcher in establishing some kind of tenability in his hypotheses whether they be substantive or generalization hypotheses.   The tradition of hypothetical deductive social science rests on the tenet that the raison d'etre of the hypothesis is not to remain a hypothesis but to confront it with data and the confrontation leads to an evaluation of the confirmation or disconfirmation of the hypothesis.   As Galtung (1967) incisively concludes:

"There is no doubt that statistical tests should be used to test the generalization hypotheses when they are appropriate, which means (1) the data form a probability sample with known probabilities from a specified universe . . ., the universe may be empirical or hypothetical . . . (2) the findings to be tested are (a) isolated, (b) generated from the data by random or at least not too systematic procedures." (p. 387, Gatlung, 1967.)

On the other hand, it is equally true that

"Most social scientists working in the field of empirical study with data amenable to statistical treatment beyond mere description will know both the almost insurmountable difficulties they encounter when they try to make data meet the statistical requirements, and the not-too-appreciative comments of their statistical colleagues. (p. 359, Gatlung, 1967.)

That is, statistical analysis is intended to solve certain problems in a specific way under specific conditions. The difficulties that arise from the use of statistical analysis or questionnaire data is the misuse or misunderstanding of the problems it solves, the implications of its analysis and the conditions which have to be met before tests can be used. In addition, statistical analysis is predicated on a variety of assumptions which can easily be forgotten in an eagerness to "dredge the data". For instance, there is a wide range of technical conditions concerning the universe of interest and the types of sampling required for certain problems. If samples are not probabilistic, then statistical tests have no importance or use whatsoever; if the testing of a generalization hypothesis is required, then a probability sample is required. Any statistical textbook would set out these requirements and the statistical methods required to counter the violation of requirements. However, social scientists and accountants have not always paid heed to the warnings issued for a careful use of statistical tools. They have tended to create pragmatic difficulties for themselves, that is difficulties which arise from misuse and misunderstanding. There is often a confusion of statistical significance with theoretical significance of particular variables and relationships leading to the danger of either restricting theoretical analysis to what is a priori deemed statistically significant or possible, or substantial remodification of theoretical analysis to suit the data. In either case, the

social scientist becomes a slave to his means of analysis and the data analysed

and a prime target for attack by interpretative social scientistis who raise

the staff of *verstehen*. There may also be confusion of the level of statistical

significance with the observed size of association, ignoring the fact that

since the former is dependent on sampling procedure and sample size, it cannot

in general be used as a measure of association. And finally, there could be

an ignorance or a selective misperception of the obvious limitations and

assumptions of statistical analysis - (a) statistical tests focus on isolated

findings and propositions which stand as sub-units within an interested holistic

theory. Because of the technical difficulty in arriving at an evaluation of

the significance level for joint findings and propositions when there is

dependence both on the unit and the variable side, statistical hypotheses are

always evaluated singly; (b) statistical tests focus on differences, not

on similarities. They work by excluding the null hypothesis which is usually

about some kind of similarity (in means, in percentages, in correlations, in

entire distributions). As "significance" means the exclusion of these

hypotheses, "statistical significance" in most cases means some kind of

difference. The result, as has often been pointed out, is to regard

similarities as uninteresting and focus on differences; it is forgotten that

similarities may be equally problematic and worthy of theoretical exploration;

(c) statistical testing implies a strict dichotomy between generality and

non-generality whereas levels of generality may may be more appropriate.

Such an implication is partly due to the sole dependence of theory confirmation

on the analysis of statistical results which leads to the equating of

confirmation with statistical significance; and most importantly (d) statistical

tests and reasoning alone are not sufficient to test a causal hypothesis or

a theory. Theoretical analysis is needed to see a relationship or a mechanism

working between the variables, to analyse the time-relation and the impact of

historical events. Further there needs to be an intersubjective feeling or

faith or agreement that the theory has been tested for a sufficient number of

relevant variables in a sufficient number of combinations, and non-statistical reasoning and interpretation is required in arriving at a conclusion as to whether the test of isolated propositions whose weight in relation to others is obscure, amounts to the testing of a whole theory.

Given these difficulties and the limited problems which statistics can solve, we recognize that the use of questionnaires as a means of data-collection is but one of many other means of data-collection, and the use of statistical analysis one of a variety of methods of analysis. Hence we have used the questionnaire in conjunction with other means of data collection. Nevertheless, given these limitations and put to its proper use the use of statistics and the questionnaire do furnish us with statistically reliable data. The interviewer may be better trained to record the respondent but the respondent knows himself what he wants to answer and will get immediate reinforcement and check when he circles or underlines an alternative. Thus one extra human fallible link is cut out, but even more important, we think is the visual check provided by the manual operation with the questionnaire. There is nothing quite corresponding to this in interviewing. The interviewer may read aloud or paraphrase what the respondent has answered but the point remains that the respondent did not possess the answer alternatives in advance, as he does for the questionnaire.

But is the data obtained from the questionnaire valid? Can we legitimately infer from manifest data to the content level of our theoretical constructs or from our sample to the universe of interest? The first part of the question asks the extent to which public expressions and verbal behaviour, written-down, can be used to infer to the underlying cognitions, attitudes or behaviour of respondents - the theoretical variables of our interest. The second part of the question asks a much wider statistical question as to the validity of sampling as a means of approximation to the universe.

The earlier part of the question has already been dealt with in detail when discussing the validity of verbal data and the correspondence between

words and "true attitudes", thoughts and behaviour. With regard to increasing the validity of questionnaire data in closing any probable gap between words and "true attitude" we once again used the principle of triangulation. Instead of taking one observation variable as a data measure of a theoretical construct we take several indicators and ensure that these indicators are sampled from a reasonably well-defined set of possible indicators and combine these indicators into a summary measure by some kind of index formation or using all of them separately but never relying on only one, except when there is long experience supporting the belief in exactly that indicator. And as reported above, these indices were then statistically tested for inter-item correlation and item-whole correlation or consistency. In addition, respondents were always ensured of anonymity when filling in questionnaires. Though names were actually recorded they were often psuedonyms; questionnaires were always filled in with only the researcher present and no possible threatening authority figure, such as a superior was allowed into the situation.

The third possible gap - that between written responses and behaviour proved the most difficult to bridge. There is a wealth of literature to show that what people say is not what people do. Parry and Crossby (1950), for example, discussed an experiment carried out in Denver which showed that 23% of the respondents said they had voted in the 1944 election when in fact they had not voted at all. Bearing such evidence in mind, we decided that crucial variables, on which respondents could feel a social pressure to misrepresent their answers, were collected and cross-checked by more subtle methods. For instance, the absence frequency of a particular learner was not obtained via a self-report on a questionnaire but collected from archival records kept of learners. In addition, questionnaire responses on the frequency of ward teaching by clinical instructors and ward sisters was checked against observational counts made whilst the researcher adopted the participant observer role. Reports on the learner's propensity to search for employment was collected by asking the learner to tabulate the actual

number of jobs applied for and so forth. Essentially the use of multiple checks and indicators was again in the fore. Nevertheless it cannot be arrogantly claimed that we were always successful in our effort to minimize the degree of questionnaire invalidity measured in terms of a lack of words-theory correspondence. In the later chapters we discuss the reasons why a lack of correspondence in certain instances may be accounted for.

The second part of the question of validity refers to the adequacy of sampling per se and our particular approach to sampling. This was carried out with clear objectives in mind and with due consideration of the validity of samples taken for the testing of generalization hypotheses and the nature of our universe. In addition to these precautions, the major questionnaires for learners were pretested at a pilot run of ten second-year nurses in order to assess whether the variables developed theoretically in the construction of the questionnaires really corresponded to something in the minds of respondents. These answers were analysed for response sets to see if there were concentrations of particular answers in particular questions. Where the respondents complained that questions were ambiguous, these were changed to meaningful terminology and standardized scales had to be adapted to the language of the research site.

One problem, however, did arise from the pilot study and that was the so-called "guinea-pig effect". Because respondents knew they were being tested as a first group, they were very enthusiastic and hence took a much shorter time with the questionnaire. In subsequent applications the length of completion time was increased from one hour to two one-hour periods separated by several days' interval in order to minimize boredom. There were no indications, however, that the knowledge of being tested affected the actual responses given on the pilot test; although there is no independent evidence to substantiate this claim.

A total of eight questionnaires were designed and used. These ranged from standard personality tests to specifically designed questionnaires.

These eight questionnaires were:

1. Schoolchildren questionnaire - designed to provide information on environmental illiberality via the attitudes of potential recruits to nursing as a career.

2. Expectations questionnaire - to elicit information on the expectations possessed by new learners and "old" learners as to definitions of ideal nursing.

3. Biographical questionnaire - this information was obtained from new learners only.

4. Eysenck Personality Inventory - designed to measure the levels of extraversion and neuroticism in learner nurses.

5. Taylor's Scale of Manifest Anxiety - designed to assess the level of manifest anxiety exhibited by learner nurses at various stages of training.

6. Primary questionnaire to learners - designed to provide information on all other theoretical variables identified in the empirical model, with the exception of variability ^{E} and complexity ^{E}.

7. Leaver questionnaire - this was part of a structured interview administered to all learners who intended to leave the training system.

8. Management questionnare - designed to elicit the definitions of effective nursing and nurse training possessed by hospital-based nurses, nurse managers, school-based nurse educators and teachers.

6.6 The Choice of Archival Research

"The palest ink is better than the best memory."

Chinese proverb

The above quotation captures the essence of our use of archival records in research for the analysis of continuous records and episodic accounts represents one of the most effective means of gaining nonreactive information (Webb et al, 1966). Access was given to the following documents which were continuous records of learner performance:

1. Learner files, which housed information on

    (a) personal and biographical details;

    (b) learner performance to date on theoretical and practical assessment;

    (c) learner performance on specific wards and areas of experience;

    (d) learner performance at his/her initial interview for a place of training; and

    (e) any formal interview held between the learner and educational personnel, for example, "counselling sessions", verbal warnings so forth.

2. Learner kardexes which are records of learner allocation to specific areas of ward experience and his/her periods of absence on each allocation. These records are automatically transferred to a learner's file when he/she completes training or terminates training before completion.

Access was also given to another form of continuous record. These were the official minutes taken down at senior staff meetings at the School of Nursing. As already reported the researcher personally attended these meetings over a period of fourteen months. However, minutes of these meetings were sent for a further period of twelve months in order to enable the researcher to keep in touch with affairs within the research site. In addition to these continuous records, access was gained to two vital episodic records:

1. an organization and methods report on the administration and allocation functions within the entire Area nurse training system. This was a

controversial document which will be discussed in later sections of the thesis;

(2) a written history of the formation of the present school of nursing. This was written by a former director of nurse education before she left her job.

Finally, apart from these documents which related specifically to the research site, unemployment information was also gathered from statistics published regularly by the Department of Employment of the United Kingdom. These statistics were collected in order to establish a link between environmental states and participant behaviour.

As can be seen a variety of documents, both continuous and episodic were used to gather information on vital aspects of our research, both at the technical and critical levels of interest. But as Webb et al (1966) note, there are two major problems associated with documentary evidence - that of selective deposit and selective survival. This is particularly relevant when one examines information contained in learner files, official minutes of senior staff meetings and the written historical account of the formation of the school of nursing. At times these documents were obviously "spotty" and we do not know if the missing sections of an account can be adequately estimated by a study of the rest of the series of accounts. Secondly, there is always the issue that such written evidence is always written by somebody with a filtered point of view and specific interest to protect. That is, even if these records are complete serially, the collection of secondary sources of information impeccable and the analysis inspired, the validity of our conclusions is necessarily constrained by the filteredness of our original material. Systematic bias could enter into what was actually deposited as a record and much of it could be unconscious bias as opposed to purposive distortion.

However, the contaminants mentioned above were felt to be less likely to influence certain of our archival information. For instance, although unemployment statistics on an aggregate basis often understate the number of unemployed, nevertheless they have been repeatedly shown to produce stable

statistical relationships in macro-economical research (Pettman, 1975). In addition they are less subject to selective perception and distortion on the part of participants within the F-set. The same argument applies to our use of the Organization and Methods report which was produced by statisticians from a Regional section of the Health Authority and thus several steps removed from the micro-politics of the organization. For such data, which is collected by a third party, the risk of awareness, role or interviewer contaminants is present but very low. The main problem here was to keep constant the basis on which certain statistics were calculated. Data was in fact omitted when they were calculated on a different basis in order to avoid invalid comparisons across different time periods. This applied particularly to unemployment statistics.

For the other forms of documentary evidence we took careful steps to counter possible contamination due to systematic bias or distortion. To overcome the inadequacy of absence records we followed Thorndike's (1939) seminal work on U.S. cities and constructed various indices of absence; a gross absence ratio, a separation of absence into long-term or short-term spells, a measure of the frequency of inception of a spell of absence, a spell of long term absence and a spell of short-term absence. It was felt that using archival absence records would, on balance, produce less biased data than a self-report of the number of days taken off work. In addition strenuous efforts were made to make comparable a variety of different methods of record-keeping to ensure data comparability; such as adjusting for five-day weeks, seven-day weeks, the exclusion of bank holidays, the record of absence in a forty-hour week, a 37½ hour week etc. Secondly, care was taken to distinguish and compare information gathered from archival sources and that from other sources of data-collection, for example, the interview. Our litany of triangulation was again enforced and sources of distortion were monitored by comparing accounts of learner behaviour reported by the leaver himself and as recorded on the written file of the leaver.

Thirdly, further steps were taken in relation to the construction of the history of the institution under study and its relationship to macro-societal movements. A historical analysis was soon found necessary in order to pursue our analysis of process and critical evaluation of the effectiveness of the training system. As E.G. Boring (1963) states:

"The best fact is one that is set in a context, that is known in relation to other facts, that is, perceived as part of the context of its past, that comes into understanding as an event which acquires significance because it belongs in a continuous dynamic sequence . . ." (p. 5, Boring, 1963.)

This emphasis was particularly emphasized by senior personnel in the nursing school who were experiencing a difficult process of change and adaptation that resulted from the radically different managerial styles of two successive directors of nurse education. The former director had been autocratic and formal, the present director preferred to delegate executive responsibility and adopted a more informal superior-subordinate relationship. A significant event had occurred and its impact on the definition of effective organizational performance could only be understood in terms of the history of the organization. To a lesser extent, specific, local historical events also played a part in explaining the process by which particular definitions of effective behaviour emerged within the hospital system.

But history is not "objective" by any definition of the term and historians have traditionally been conscious that the reality they study can "only be an image or hypothetical conception of the actual fact." (Berkhofer, 1969) This is particularly so when the subject of their interest is in the distant past and documents are the only available data source. In order to reduce biases we constructed our historical record carefully. Firstly, data was collected from eye witnesses only. The presence of a general administrative assistant who had worked within the nursing school for 28 years was especially helpful and she provided much historical data. Other informants who were interviewed had also spent a considerable number of years

at the institution (two years and above). No informant who had left the institution for more than twelve months was interviewed. Hence a historical record of the formation of the Area School of Nursing in April 1975 was constructed by interview data from six informants who were currently employed:

1. the Director of Nurse Education   (2 years in office)

2. the General Administrator   (29 years within the health district)

3. the Senior Allocations Officer   (5 years within the health district)

4. Senior Tutor MH   (10 years within the health district)

5. Senior Tutor SR   (10 years within the health district)

6. Divisional Nursing Officer AB   (12 years within the health district)

These same informants were also used to report on events particular to the school prior to 1975, form 1966-1975. This period was vital for it saw many changes in the hierarchical structure of the nursing profession and it provided a wealth of information on   events prior to the formation of an Area School. It is in the light of these verbal records that the later written historical account of the school of nursing is interpreted. This written history briefly lists events happening in the Southern District from the years 1938-1966 and its existence partially explains the events from 1966-1975. Though written by a former director of nurse education (or its equivalent) and hence subject to selective bias, it nevertheless gives useful clues as to subsequent events and indeed helps explain in part the verbal accounts of 1966-1975. Part of its validity was corroborated by interview information from the general administrator.

Finally , historical events and our interpretation of them were corroborated by reference to detailed histories of nursing compiled by a variety of other researchers. The work of Abel-Smith (1960), Rosemary White (1978) Dingwall and McIntosh (1978) were thoroughly reviewed and any corroborating or nullifying information noted in order to increase the internal validity of our argument.

Chapter Seven: The Setting: An Overview of Events

The Mayfield Area School of Nursing which is situated in Mayfield, a city in the industrial north of England was officially founded in April 1974 and an Area Director of Nurse Education appointed in August 1974. Two events contributed to its formation (a) the re-organization of local governmental spheres of responsibility in the United Kingdom in 1974, and (b) the "successful" setting up within the city of a former group-based School of Nursing. This group-based School, called the United School of Nursing is largely represented today by the Southern Health District. This now defunct School had in fact played a significant role in the development of the Area School and a brief outline of its history precedes a discussion of events after 1974.

7.1 A History of the Formation of the United Group of Hospitals and the

United School of Nursing.

Prior to the formation of the United School of Nursing which was based on the United Group of Hospitals, there were four main hospitals in the southern side of Mayfield - each with a long history and its independent school of nursing. These four hospitals were:

(a) The Royal Infirmary,

(b) The Royal Hospital,

(c) The Children's Hospital, and

(d) The Women's Hospital.

By 1946, when the National Health Services Act was passed in Parliament, all these four hospitals were united into a single group which was called the United Group of Hospitals. This group provided medical training for medical students on a shared, integrated basis. The process of formation of the United Group of Hospitals also spurred the formation of a United School of Nursing.

From its inception in 1946/47 to August 1974 the United School of Nursing gradually dominated nurse training in the city. Its prestige derived from

the fact that it was the first group-based school of nursing to be set up in the United Kingdom and the pilot project had been a "success". Nurse training had received a "successful" radical re-interpretation; instead of being identified with a particular hospital, training was now provided by a number of different hospitals, each of which offered a specialist knowledge. The United School of Nursing showed that such a division of labour could be used to maximum advantage and the diversity of experience integrated to provide a well-rounded form of nurse training.

The successful integration of the United School of Nursing and its growing influence was also linked directly to the long historical tradition of the United Group of Hospitals. These hospitals, being situated in the south side of the city had had a long history of close contact with the Mayfield Medical School that had been founded in 1828 and which eventually gave rise to the University which was officially opened in 1905. The United Group of Hospitals had also traditionally served that part of the city which had a higher average income and had always maintained good relationships with wealthy, "highly-respected" (i.e. societally legitimated) interest groups in the wider communal environment. Each of these four traditional hospitals owed their very origins to the donations (financial support) and moral support of the upper and middle class tiers of eighteenth century society. The Royal Infirmary was started from voluntary gifts from wealthy ladies, physicians and prominent clergymen (including the Vicar) of the city. Both the Royal Hospital and the Women's Hospital were launched by an appeal from the industrialist, T. Jessop. The Children's Hospital used to possess a Ladies Committee which consisted of respectable, well-meaning ladies of the middle-class who assisted with the purchase of linen and other household requirements. The United Nursing School could also claim an association with Florence Nightingale herself, a figure venerated even by nurses in the United Kingdom today as the founder of modern nursing.

By December 1974 the United School of Nursing had so increased in size

that it alone accounted for fifty per cent of all learner nurses undertaking

a variety of nurse training courses throughout the city. In addition, the

School was run successively by two prominent, autocratic leaders who coped

with initial opposition to the School's formation and the management of its

required subsequent integration. The earlier of these two leaders was P

who retired in 1965 and who was succeeded by Vane who directed the School from

January 1966 to October 1978. Both these leaders brought a sum total of

approximately two decades of authoritarian leadership which were to

significantly influence the formation of the Area School of Nursing in 1974.

Before we move to compare the development of nurse training in the

northern side of the city, a report must be made of the building of a

large general hospital in the southern side of Mayfield: the Southern

General Hospital. The building of this new hospital further enhanced the

image of health organizations in the southern side of the city. It

was to be a 750-bedded hospital with the most up-to-date medical and

research facilities. Wards were designed on a revolutionary racetrack

principle as opposed to traditional open-plan wards and these would be twen-

ty- eight bedded wards that were divided into individual bays and rooms

for maximum patient privacy. In short the SGH was heralded as a hospital

that "has been planned and designed to provide very much improved faci-

lities for the care of patients, for the teaching of medical, nursing and

other staff and for research than those afforded by existing hospitals."

Further under the Mayfield Area Health Authority's Strategic Plan for

Hospitals, the SGH would be one of the two teaching hospitals in the city.

7.2 A History of the Formation of the Northern General Hospital and the Northern General School of Nursing.

The Northern General Hospital had a radically different historical

background from hospitals in the south. It had its origins in a work-

house and the concept of poor relief. The F.V. workhouse was formally

opened in 1881 but its formation had been heralded by constant bickering among the Guardians of the Mayfield Union (who were responsible for operating the workhouse), the local Government Board (who controlled the administration of Poor Law Relief) and the ratepayers (who funded the workhouse). Such in-fighting had caused delays and when the workhouse was opened, it already housed numbers which stretched it to its capacity - 1188 paupers and 365 sick poor.

Although there is little comparative material on the conditions within the workhouse hospital and hospitals in the south of the city it is certain that they were highly inadequate. In 1896 Mr. R.J. Smith (Emeritus Professor of Surgery at the University and consultant at the Royal Hospital) conducted an investigation into workhouse conditions and reported:

> "I went home wondering that we citizens of *Mayfield* should be so apathetic to the final lot of many who have helped to build our city's reputation, and to create the wealth that abounds in its suburbs, that those who undertake the work of dealing with the destitute seen so blind to the ends inseparable from pauper palaces, and that practical Christianity at the end of the nineteenth century has found no better way than this for meeting the needs of the poor; and I felt, with Wordsworth -
>
> Have I not reason to lament?
> What man has made of man?" \

Mayfield Daily Telegraph, August 24th, 1896.

Specific unsatisfactory conditions mentioned were the number of inmates, impersonal treatment, the locking-in of inmates, the wearing of uniform, poor diet, restrictive hours of absence and visiting and sundry evils of "pauper superintendence". However, events were soon to occur that would change the image of the workhouse.

In the early 1900s the Guardians decided that the hospital should be separated from the Workhouse proper and its attendant social stigma and in 1906 the Local Government Board issued an order separating the hospital from the other buildings and it was renamed the Mayfield Union Hospital with accommodation for 643 patients. Over the years it came to be known as the

F.V. Hospital. Eventually this was amalgamated with the Children's Hospital that had been built on the grounds of the F.V. Workhouse. The Mayfield Union Hospital then carried on its activities like any other municipal general hospital but the aged and infirm were cared for separately within the old F.V. Infirmary. Although workhouse status was no longer attached to the new hospital, the old vagrant wards were used until 1960 by the Local Authority to provide accommodation and food for some sixty to ninety inmates per night. It is interesting to note that all initial medical staff at the new F.V. Hospital were provided by visiting staff who held permanent posts at the Royal Hospital in the south. It was not until 1909 that the F.V. Hospital procured a resident Medical Officer but it still had to depend on a visiting surgeon from the Royal.

In 1929 the Local Government Act was passed. This Bill was essentially a compromise effected by the then Minster of Health, Neville Chamberlain. It placed some responsibility for health care on local government authorities which, however, left the voluntary hospitals and private medical practice untouched. It was in this way that the Mayfield Union Hospital came under the control of the new Mayfield City Council in 1930; its Board of Governors was abolished and it was renamed City General Hospital. The City Council then took steps to build up the status of City General. One of its first tasks was a symbolic one - to create a separate entrance into the new City General Hospital which had hitherto shared the same entrance as the Workhouse. It was felt that a new entrance could reflect the new orientation of care offered. No longer was the City Council content to allow the social differentiation between municipal and voluntary hospitals. Ironically, it took what it saw as reasonable steps to raise the respectability of the Hospital - by disassociating it psychologically from the sick poor for whom the hospital had originally been intended. However, new gates and new names do not make a new hospital and it is recorded in 1978 in the official history

of the hospital that:

> "The distinction between municipal and voluntary hospitals, in terms of standards of accommodation and the range of care offered , was to continue for many years in spite of developments at the City General Hospital." (Documented source unrevealed.)

It can be seen that up till 1948 it was the state run City Council that had enabled the transition of the hospital from one which served the needs of only the sick poor of the F.V. Workhouse to a large, modern municipal general hospital. The National Health Service Act represented yet another act of the State that aided the City General Hospital in its efforts to move to a position similar in status and role to that of the voluntary hospitals in the south. Post-1948, the City General saw several years of low capital investment spending but a major expansion in the numbers of nursing staff and learners. Though capital expansion was not as great as that desired, increased specialization in medical care did result and new Physiotherapy and Cardiology Departments were set up.

In 1962 a third State intervention occurred - the publication of the "Hospital Plan for England and Wales" by the then Minister of Health, E. Powell. This established the government's policy of providing District General Hospitals for centres of populations. The City General was already on the way to providing the range of facilities required of a District General Hospital. Plans were, therefore, put for its redevelopment along the lines laid down for a large District General Hospital that would eventually have 1650 beds. However, in the early 1970s the State and the hospital faltered in their plans. Severe macro-economic problems and financial difficulties curtailed the announcement of a multi-phased project that was intended to completely replace the acute hospital facilities of the hospital. Only in 1977 was a start made on certain redevelopment plans and only in 1981 was the building completed of a new Mental Illness Unit and a new Accident and Emergency Department.

We conclude this comparison of the growth of hospitals in the north and south of Mayfield with the summary shown in Table 7.1.

Southern Group of Hospitals	Northern Hospitals
1. Voluntary Hospitals which received considerable financial and political support from the middle and upper classes of 18th-century Mayfield, for example, wealth ladies, merchants, clergymen, industrialists, physicians.	1. Began as a Workhouse Institution that was funded unhappily by ratepayer money. Catered basically for paupers, vagrants, the sick poor and the infirm. Constant disputes with ratepayers and Local Government Board.
2. Close connections maintained with F. Nightingale	2. None recorded.
3. Close links with the University that was sited nearby. Teaching status accorded to all four hospitals by 1948; the Royal was designated a teaching hospital in 1875. **Professorial** medical staff were teaching at the Royal as early as 1896.	3. University teaching status conferred in 1971. The first medical chair at the Hospital was created in 1972.
4. The Southern General Hospital was opened in 1978 with its developments completed. It is officially designated a District General Hospital. The Hospital was and is regarded by citizens as one of the most modern hospitals in the country, despite staff complaints of inadequate planning.	4. Redevelopment plans to convert the Northern General into a District General Hospital have been considerably slowed down due to a lack of funds. Only the Mental Illness Unit and the Accident and Emergency Unit had been completed by 1981. Staff suffered stress and this was highlighted on a national television programme.
5. The United School of Nursing was regarded as a highly successful pilot project in nurse training.	5. None was initiated.
6. The United School accounted the for largest number of learners training in Mayfield at a particular school of nursing.	6. The number of learners training at the Northern General, irrespective of speciality were smaller than that at the United School.
7. The United School was run by a succession of powerful, autocratic leaders. P directed the School till 1965 and Vane took over the Principalship from 1966-1978.	7. No such record of charismatic leaders was reported at the Northern School.

Table 7.1 A Comparison of the North

and South in Mayfield

7.3 The Formation of the Mayfield Area School of Nursing: 1974-1978

By the time Vane came to undertake the principalship of the United

School of Nursing in January 1966 plans were already afoot for the concept

of an Area School of Nursing. This officially came into being in August 1974.

No written documentation of this formation was available to the researcher.

However, interview information revealed that this formation of an Area School

was significantly influenced by the successful integration of the southern

hospitals and the working of the United School of Nursing.

Reports gathered from three current senior tutors at the School of Nursing

revealed that the birth of the Area School was marked by controversy and

conflict. The formation of an Area School was a complex process of merging

three dominant schools of nursing: (a) the United School of Nursing based in

the south, (b) the northern school of nursing and (c) three other small nurse

training schools based at a small general hospital, an orthopaedic-based

hospital and a mental illness hospital. However, there was apparently little

consultation and discussion of the merger with teaching staff of the northern

and smaller nursing schools; one senior nurse tutor informed the researcher

that "I woke up one morning and suddenly found myself part of an Area School".

This perception of a lack of thorough consultation and discussion was further

aggravated by the fact that the then principal (Vane) and assistant principal

of the United School of Nursing became the first Area Director and Assistant

Director in the Southern District of Nurse Education. (The person then in

charge of the Northern School became the Assistant Director of the Northern

District and also had administrative responsibility over the smaller schools

at L.M. and the mental illness hospital in the north of the city.) The

members of staff of the Northern and smaller schools of nursing felt that

there had been a virtual take-over of nurse training in the city by the

United School. This developed into a them-us attitude which was partially a

hangover from traditional feelings of competition between the prestigious

United School of Nursing and the Northern School and other less well-known

schools. As the previous history indicates, there are long historical roots for the origins of a sense of rivalry and competition.

In addition to these changes on the educational side of the Health District, the service component or sub-system also saw changes. Previously Mayfield had been divided into three health districts, northern, southern and central. But in the 1970's the city was redivided into a two-health district area: Northern and Southern. The Northern District now had the Northern General Hospital as its main district general hospital and the small hospital called L.M. also come within its service boundaries. The Southern District was largely grouped around the four main hospitals that had serviced the United School of Nursing. This North-South division of the Area added to a sense of change within the city's health environment and also developed into a North-South split of loyalties amongst service and educational staff. As the division closely paralleled traditional divisions of the city's health arena, it was not difficult for participants to mentally reorganize a United School versus the Northern School (or L.M. School) attitude into a Northern District versus the Southern District feeling.

Interview information from North and South service and educational staff reveals that the new Area Director of Nurse Education (Vane) did little to loosen these jealousies and indeed she has been accused of positively contributing to a sense of division. The question of blame aside, cross-checked reports indicate that her style of leadership did not contribute to an Area concept: teaching and administrative staff from the Northern training centres based at L.M. Hospital and the Northern General Hospital (N.G.H.) had but few opportunities to meet teaching staff from the old United School of Nursing. Although an Area School was nominally in operation each training centre was left to arrange the detailed mechanics of its training in its own way. That is, although each centre was now supposed to belong to a common Area School each still operated like an independent school of nursing. For example, the Northern and Southern centres, the former based

at N.G.H. and the latter at Clarke House, each had its own recruitment programme. Learners were recruited not to an Area School but to the Northern centre or Southern centre. In addition once recruited to a specific centre, they only worked in the hospitals of that defined district; Northern based learners would do their training entirely in the Northern District and vice versa for Southern based learners. The notification of resignation, absence, the design of specific courses and their content and the allocation of learners were also left to the discretion of individual centres. When the researcher first began her research she found a bewildering array of different forms and procedures which were peculiar to the individual mode of operation of each training centre. However, although day-to-day operational control was left to the choice of individual centres, Vane kept a tight rein on her executive and managerial control. From all accounts, she was an autocratic leader who did not delegate much of her responsibility and senior tutors were more often that not told of her decisions rather than being involved in discussion to any significant degree. For instance the overall design of intakes/cohorts, their numbers and overall course content was decided by the Director herself and her Assistants. Complaints from learners were referred directly up to the Director and senior tutors had little contact with the entire disciplinary procedure. Any implementation of new changes and rulings from the General Nursing Council of England and Wales were also decided by the Director. Senior tutors were also not concerned with introducing any educational innovation, their job was very clearly defined in both teaching and administrative terms. Finally they were compartmentalized into specific unchanged areas of teaching at specific centres. For instance, a senior tutor who was in charge of pupil training at L.M. would be in charge of that course for several years. Similarly a senior tutor who was responsible for teaching graduate nurses would only teach this type of learner. The following are excerpts from particular actors within the training system and they serve to illustrate the source of the above arguments.

General Administrative
Assistant, 12 June 1981:

"Before Davies came we had no Area School.
Each centre worked separately and nurses
were recruited to specific education centres.
There was no central recruitment centre like
now. Also administration, allocation and
community care experience was organized on a
centre-by-centre basis."

The Senior Allocations
Officer, 11 January 1980:

"The change of leadership in 1978 brought a
completely different philosophy and style of
management. Davies is very different from
Vane, he delegates more."

The new Senior
Allocations Officer
12 June 1981:

"The old style of management, like that of
Vane's and service colleagues like her. is not
appropriate today. It was too strict and
perhaps undemocratic but she had authority and
responsibility. The problem we have today is
too much delegation. Delegation is but one form
of management, a part of it. We need authority
from above not like the old days and in the old
way but authority nonetheless. We need firm
leadership, the trouble with this school today
is too much delegation.   Men are always talking
of delegation but that is not management."

Senior Tutor in Southern
District, 28 May 1981:

"My role as a senior tutor has changed a lot.
When Vane was here I was only in charge of a
pupil school in L.M. Hospital. Now I have
various responsibilities and I teach both pupils,
students and graduates. At the moment I am also
in charge of a special project . . .. The change
initially caused me a great deal of stress and
anxiety but I am settling now."

Senior Tutor in Northern
District, 3 June 1981:

"The level of decision-making has been pushed
much lower down than in the past. We are now
supposed to deal with as many decisions as
possible at our level, for example learner
disciplinary procedures. We are also given the
freedom to design our own course content but in
a way that is consistent throughout the Area
School."

Director of Nurse
Education, 7 May 1980:

"There is a legacy of authoritarian leadership
in this School. Teaching talent was being
squandered, teachers were mentally locked up.
They were not encouraged to talk, to discuss,
to think. They did not know the workings of
different centres. Teachers in the various
centres were kept apart. There was no Area
School, each centre kept its own identity, its
own method of work. There were and are many diff-
erences. Loyalties particular to a centre were
encouraged and rivalry between centres was common."

Director of Nurse
Education, 10 July 1980:

"I have tried to encourage senior tutors to make
their own decisions as far as possible, to encourage
the movement of staff across the four different
centres and to encourage more social mixing of
staff amongst the centres. The old loyalties are
slowly disappearing but the changes here, of
course, caused stress to staff at all levels."

As can be seen each actor agrees that there was a significant change

in leadership style when Davies replaced Vane as the Director in 1978.

7.4 The School 1978 -

When Davies came to the Directorship in November, 1978 he found a

School which was ostensibly an Area School but which functioned as a hybrid

set of semi-separate centres with strong education centre/hospital-based

loyalties. All major policy decisions had been made by Vane and her assis-

tant directors while a variety of routine administrative tasks were left

to the discretion of centres. Both senior tutors and Davies reported that

there was little communication between centres as to the details of

teaching content; each teacher apparently belonged to an Area School but knew

little of what a teacher in the other district was teaching. Thus there was

little indication that a learner would receive a similar form and quality

of education in the North and South, the only yardstick of performance

was the ability of the learner to pass her State Finals at the end of

her training. Further, there was little evidence that senior tutors

were particularly dissatisfied with their job content. Interviews with

all three long-serving senior tutors and Davies revealed that none "complained"

of their work in the past. On the contrary there were frequent discussions

of the stress caused by a change of directors, each of which possessed his/

her definition of "what ought to be". Finally, not only was there relatively

little communication between Education centres, there was little contact

and an uneasy relationship between service and educational personnel in

both the North and South Districts.

Davies proposed to change all this and the detailed account of changing

definitions of effective organizational behaviour and their consequences

for the organization will be set out in chapter 10.

We conclude this description of the setting with a series of organizational

charts which appertain to the period 1980/81. Changes have continued to affect

the entire field of nurse training and hence these charts should serve as accurate illustrations of the principal participants and their role definitions rather than precise statements of exact relationships.

The Area Health Authority which is of interest is called the Mayfield Area Authority and it primarily caters for the health demands of the city of Mayfield and its surrounding towns and villages. As pointed out earlier, this Area Health Authority was divided into two health districts and to this day (1982) remains a two-health district Area. The Northern District serves a population of approximately 216,000 people in the northern side of the city. There are some seven main hospitals and clinics which provide training for general nurse qualifications of which the principal ones are S.E.N. and S.R.N.; and mental illness and mental handicap qualifications. The Southern District serves an estimated population of 206,000 in the southern side of the city and has eight main hospitals and annexes which again provide both general and specialist nurse training. (The number of hospitals and clinics cited only include major centres; in addition to these there are a considerable number of hostels, special schools, adult training centres and community care centres.) The major hospitals for general training in the Northern District are the Northern General Hospital (N.G.H.) and a smaller L.M. Hospital. The main hospital for nurse training in the Southern District is a new hospital called the Southern General Hospital (S.G.H.).

Appendix 7.2 shows the hierarchical structure of the service subsystem of the Mayfield Area Health Authority. The A.H.A. is a body of men and women who are drawn not only from persons with a nursing or medical responsibility but also from prominent members of the surrounding community. As can be seen, it is executively advised by the Area Management Team on which sits the Area Nursing Officer (A.N.O.). The other members of the Area Management Team are the Area Medical Officer (A.M.O.), the Area Personnel Officer (A.P.O.),

the Area Treasurer and the Area Administrator. The Director of the School of Nursing is directly responsible to the Area Nursing Officer.

Below the level of the Area comes the District Management Team. This comprises five members: the D.N.O. (District Nursing Officer), the D.M.O. (District Medical Officer), the D.P.O. (District Personnel Officer), the District Treasurer and the District Administrator. As the Mayfield Area Health Authority is divided into two Districts, there are two District teams of management. Some of these members represent or is the chairman of a larger body or committee, these committees are placed in brackets directly below the names of the relevant persons. For instance, the D.N.O. is responsible for and to a larger decision-making body of nurses called the Nursing Executive Committee. Both Divisional Nursing Officers and Senior Nursing Officers from across the health district sit on this committee. The A.N.O. only has a monitor function over the activities of the D.N.O.; that is, in principle the District Nursing Officer, as part of the district management team is executively responsible to the Area Health Authority not to the A.N.O. It is important to note that the D.N.O. is not directly accountable to the Area Nursing Officer and consequently tends to have less of a direct line of communication with him/her than the Director of Nurse Education. This arises because our micro-organisation is an Area School of Nursing. If it were a district-based school of nursing then it would be under the authority of the D.N.O.

Below the level of D.N.O. we encounter a descending hierarchy of management: Divisional Nursing Officer (D.N.O.), Senior Nursing Officer (S.N.O.), Nursing Officer. The Nursing Officer position is a boundary role between nursing administrative and clinical responsibility. In principle, the N.O. role is a clinical appointment but in practice there is little evidence of that (Merrison Report, 1979). After that role the ward sister forms the most senior appointment at ward level and she has responsibility for most of the activities of her ward. A ward sister is always a qualified S.R.N. who has had about two to three years of post-qualifying experience. Staff under her

legitimated authority include qualified nursing staff with S.R.N. (State

Registered Nurse) or S.E.N. (State Enrolled Nurse) qualifications, unqualified

learners - both students (learner S.R.N. nurses) and pupils (learner S.E.N.

nurses) and nursing auxiliaries or assistants. This last group of personnel

is a semi-skilled group which undergoes a four or five week period of training

prior to actual ward work. Below the level of the ward sister qualified

nursing staff with S.R.N. qualifications are invariably appointed to staff

nurse positions from where they can climb the clinical and administrative

promotion ladder. Qualified S.E.N.s, however, do not have a structured career

pattern and do not progress beyond the rank of a senior S.E.N. who is ward-

based. S.E.N.s cannot become staff nurses or ward sisters and are barred

from progressing up the administrative career structure; in order to do so,

S.E.N.s must gain the S.R.N. qualification.

Appendix 7.2 is further expanded in Appendices 7.3, 7.4 and 7.5 to show

the detailed 1980/81 organizational set-up within the entire Mayfield Area

Training System. The term "training system" is used because a nurse's

training is made up of two vital ingredients: theoretical knowledge and

practical skills. The former is usually intensively taught in study blocks of

one-week (for general pupil nurses) or two-week (for general student nurses)

duration, during which time a cohort or intake of learners is grouped

collectively in the training centres of the School of Nursing and taught on

a full-time basis by teaching staff whose main responsibility for teaching

is executed in the classroom. With the exception of clinical instructors most

of the teaching staff of the educational sub-system at the Mayfield Area

Training System spend eighty per cent of their time within the boundaries of

the School's training centres which are physically separated from hospital

wards. This educational function is referred to as the educational sub-system

or simply as the Area School of Nursing because it has its own distinctive

hierarchy and modus operandi. The detailed organization of the School's

set-up is shown in Appendix 7.3.

As can be seen the Director (Davies) is the head of the School itself and he is directly accountable to the A.N.O. Below him are two Assistant Directors, each with a specific responsibility for management within a Health District. Both the Director and Assistant Directors are based at the School's headquarters in Clarke House which is near the S.G.H. on the southern side of the city. (Clarke House was formerly the headquarters of the United School of Nursing.) However, the Assistant Directors also have subsidiary offices at the S.G.H. and N.G.H. educational centres. The role of the Assistant Director as documented in a role outline dated January 1977 is largely managerial and administrative. During the period of research November (1979-June 1981) the activities of both Assistant Directors were largely similar to those outlined in the 1977 job specification. At a policy level the Assistants aid the Director in the vital interpretation and implementation of statutory and regional policies. He/she also acts as a communication link between educational staff and nursing service staff since the Assistant Director is always a member of the relevant District Nursing Executive Committee. Further, the Assistants and the Director play an important role in the control of staff inputs - they sit on the selection boards for all learners, teaching staff as well as nursing service staff. The Assistants select staff up to and including the rank of Senior Nursing Officer (S.N.O.) whilst the Director sits on selection committees up to and including the rank of District Nursing Officer. Essentially the recruitment system across the entire Area Nurse Training System ensures that both educational and service personnel help select staff in each of these sub-systems up to and including their corresponding ranks in their respective highly structured hierarchies. Finally the role specification for the Assistant Director states specifically that he/she should aid in the promotion of research. Below the rank of the administrative tier comes the role of Senior Tutor who not only oversees and monitors teaching programmes but often undertakes some teaching herself. Senior Tutors are allocated specific specialities; since the largest number

of learners within the Mayfield Area Training System undergo general training for the Roll and the Register, there are more more general senior tutors than senior tutors in charge of specialities like Mental Handicap or Mental Illness. Again the responsibilities of maintaining a good service/education link are mentioned and so is the promotion of research. In addition the Senior Tutor has to liaise closely with the Allocation function, be familiar with the Disciplinary Procedure for learners and participate in the selection of learners. Next comes the rank of the nurse tutor who participates actively in the teaching of learners and whose main administrative responsibility relates directly to learner affairs and management. Lastly there are the clinical instructors/teachers. The role of the clinical teacher was created by the Salmon Plan of 1966. The function of the clinical teacher is to teach practical skills in the classroom and to go actively to ward areas and assist in the teaching of learners on the wards. Whilst tutors and senior tutors do go onto the wards to some extent their usual purpose is to conduct ward-based assessments and not to teach in the ordinary sense of the word; the latter function is, however, the primary responsibility of the clinical teacher.

Apart from the teaching function the School has also a specialized Allocation function or department. This function is essentially a boundary spanning role for the Allocation Officer has to ensure that each learner has a programme of ward-based experience that not only enables the learner to meet all statutory training requirements but also services the wards of the hospitals in such a way to avoid a glut or scarcity of "pairs of hands". In most U.K. hospitals and in the Mayfield area unqualified learners provide some 50% - 80% of the labour force on the ward. This percentage is obtained via interview information and participant observation on the wards. Invariably a day-time ward shift consists of two to four qualified nursing staff, some six to eight unqualified learners with one or two nursing auxiliaries. This dual role of the learner as a learner and as a worker lies at the heart of the allocation function and

is often a source of conflict within the Training System. Within the Mayfield
Training System there is a Senior Allocations Officer (Richards) who is
based at the S.G.H. educational centre. Below her are two Allocation Officers,
one of which is based at the N.G.H. educational centre and the other at a
smaller orthopaedic hospital. The Allocation Officer at the N.G.H., Eagles,
is aided by a Higher Clerical Officer called Rose.

In addition to these three main divisions the Director of the School has
reporting to him liaison personnel from the Community Care Service, a Senior
Tutor in charge of Orthopaedic courses and an administrative staff. The
Senior Administrative Assistant post has only been created in early 1981, prior
to that the General Administrative Assistant, Massey, was in charge of the
administrative function. Massey had been employed at Mayfield since 1953 and
only retired on 30th June, 1981.

Appendix 7.4 below shows the service sub-system of the Northern District
of the Mayfield Area Nurse Training System. Essentially, this hierarchy is
similar to the broader picture of Appendix 7.2 except that it shows only the
administrative tiers - beginning from District N.O. to N.O. The D.N.O.,
Botts, has five Divisional N.O.s under her authority. One of these is Binney
who is in charge of general nursing and has control over the nursing staff
of the surgical and medical areas at the N.G.H. and all qualified nursing
staff at L.M. Hospital. Like the educational sub-system, responsibilities
within the service sub-system are divided by nursing specialities and there
are only two staff as opposed to line departments. This is the Personnel and
In-Service Training Department and the Research Development and Service Planning
Department. These two are fairly small departments the latter consists of the
S.N.O., James, and her secretary. It was through James that entree was
negotiated onto the general wards of the Northern General Hospital.

Appendix 7.5 shows the service subsystem of the Southern District of the Mayfield Area Nurse Training System. The D.N.O., Potts, has three Divisional Nursing Officers. Acton is the person in charge of general or acute services and she has reporting to her S.N.O.s who carry different responsibilities within the Southern General Hospital. Abel is the S.N.O. in charge of general wards within the complex. Below the level of the S.N.O. are N.O.s. These are generally omitted from the diagram except where N.O.s are in charge of smaller hospitals, like Hospital El or the Women's Hospital. The role of a N.O. in charge of the Royal Infirmary is now defunct because the Infirmary was officially closed as a hospital in the Spring of 1981. As in the Northern District there are two staff S.N.O.s. One of these is Williams whose nondescript title covers a range of sundry administrative duties, among which was the co-ordination of research within the entire District. It was Williams who arranged the researcher's entrée onto the general wards of the Southern General Hospital.

With these organizational charts explained we have come to the end of the description of the setting of our empirical research. Appendix 7.1 gives a brief description of the training courses available at Mayfield. In the next chapter we begin a description of our technically-interested model of O.E. A considerable amount of effort has been spent in tracing the historical origins of the micro-system because it was found that these events substantially influenced the social constructions of the participants within the system. Names have, however, been altered to prevent identification of the persons and places involved and sources of material have not been revealed.

Chapter 8: A Theory of Organizational Effectiveness within a Technical and Hermeneutical Level of Interest

8.1 The CF-Set Summarily Criticised

Tinker's (1975) theory of the F-set (henceforth denoted as the CF-set) was discussed in detail in chapter 2. Its strengths were noted but it also has weaknesses. These will now be discussed before we proceed in the next section to develop an extended F-set.

O.E. within a CF-set is essentially a satisficing notion. Whilst accepting that macro-societal and environmental structures and relationships can influence the CF-set, little attention is in fact paid to the analysis of such influences. Neither the statics nor dynamics of such "variables" is incorporated in Tinker's (1975) analysis. Macro-societal relationships, for example, whether defined structurally or processually are not evoked as an explanation of the state and change of the CF-set. Instead, the act of survival is defined at a general level - as the extent to which an organizational coalition maintains and induces a point in a jumpy (changing) CF-set within any societal environment. This emphasis on the generality of the CF-set unfortunately obscures the consequences of specific societal and institutional arrangements. For instance, a society geared towards barter trade and a socialist ideology will differ significantly from a market economy in a state of advanced capitalism in terms of its effects on the definition of "what people need". The very content of the CF-set alters and so does the level and kind of need-satisfaction activity required from the coalition as a whole. By neglecting to explain the historical and macro-societal factors which "cause" certain needs to gain importance, Tinker's (1975) thesis does not fully allow an in-depth analysis into the antecedents of organizational purpose and measures of effectiveness. (Tinker (1982) does give an indication, however, that he is aware of the influence of social historical forces on theories of value.)

In addition, the CF-set does not enquire into the mechanics by which a particular mix of inducements and contributions is chosen by the coalition; it does not elucidate the interaction between intraorganizational interest groups nor the linkages between micro-political and macro-societal networks that ensure the choice of a particular viable strategy. Its primary emphasis is on the maintenance of coalitional order and the achievement of a minimally acceptable level of consensus. Though conflict was ostensibly used as the basis for Tinker's (1975) empirical model only the static picture of conflict was presented. In any event, the relationship between conflict and power was not clearly drawn.

This neglect of macro-societal forces and micro-organizational politics is due directly to the failure of Ashby's cybernetics to enquire into the processes of power and influence. For Ashby (1956), the nature of outcomes is classified into a dichotomy of "good" and "bad" outcomes, "good" being defined as "those states in which certain essential variables are kept within assigned limits". Because he speaks of biological systems in isolation, Ashby fails to relate to notions of power in the construction of criteria of O.E. (If he had enquired at the level of the tribe or species in biological analysis, he could have been more explicit about power). Essentially, Ashby's definition of survival is static and he takes goal-states and ends as non-problematic; he belongs to the "official goal" model of O.E. Whilst this concept of static equilibrium is not a part of Tinker's CF-set, he nevertheless omitted an analysis of macro-power relationships.

Lastly, Tinker's CF-set did not distinguish well between long-term and short-term forms of O.E., that is, the concept of survival within a CF-set was not differentiated clearly into short-term or long-term concepts. This is important, for clearly, achieving a feasible set of strategies in the short-run is no predictor of such achievement in the long-run, no assurance that in the future the coalition will continue to exist as a "need-satisficer" upon which the satisfaction of individual needs is said to depend. It

could be argued that the notion of managing "jumpy" F-sets implies a long-run concept of survival but this is by no means clear. Such management is obviously vital even for short-run survival in conditions of high environmental uncertainty. We therefore begin our next section with an extension of the CF-set to explicitly incorporate the concept of long-run survival.

8.2 The CF-set Reformulated

The CF- set, on a first approximation, is extended such that long-run survival is the standard of effective organizational performance. That is, an effective organization is one which achieves a point in the F-set in the long-run, which continually maintains at least the minimal level of "acceptable need satisfaction". The system's effectiveness is thus defined by the current state of survival and the expectation of continued survival in the long-run. It is important to clarify that survival is not equated with the usual, physical concept of survival. An ad hoc, temporary organization, like a committee set up for a specific task is deemed to have survived in the long-run when and if it achieves this task to the minimally acceptable standard set by all coalitional participants; although the organization may then be disbanded and in fact no longer exists in a physical sense. By extending the concept of survival to survival in the long-run the feasible solution obtained may be defined more strongly as an optimal solution in that each and every factor or participant is willing to carry on as it now is (within the focal organization) in the long-run.

It is important to distinguish clearly between this concept of long-run maintenance of the F-set from Ashby's biological notion of survival. As briefly noted earlier, Ashby took goals to be non-problematic. The problem of adaptation and control was perceived purely in terms of an organization's need to develop strategies to counter environmental disturbances in order to maintain an equilibrium. Ashby's examples speak of physiological limits (the survival of particular gene patterns) and mechanical constraints (the desired temperature range being between 36°C and 37°C). Though he did

accept that a finer classification of desired states might be possible, he nevertheless believed that his formulations could be applied universally in as "rigorous, objective and unambiguous (manner) as one pleases". Our definition of the F-set sees desired and feasible states as highly contingent on the states of the environment, the values thereof and the construction of participants. The F-set is not the seemingly invariant set of Ashby's essential variables. Indeed, change is inherent in its structure for in order that an organization might remain viable in the long-run and stay within a changing and changeable F-set, the organization must both adapt to changes which occur internally and externally, and initiate changes in order to create an environment suitable as a habitat. Changes in the values and beliefs of the society in which the organization is embedded, in technology or in the life-chances of the participants will influence the costs of continued participation and hence what is deemed acceptable and feasible will change. Changes in the F-set are also influenced by past and present strategies and policies which reflect a particular set of inducements and contributions. A particular choice of inducements and contributions may not wholly satisfy the needs of certain participant groups and these will then seek to right the balance. The achievement of past targets will lead to changes in the feasible set of alternatives as participants set new targets. Thus, because the F-set changes, the act of continued survival means an act of appropriate change and response to change. (Tinker and Lowe, 1977). This is illustrated in Diagram 8.1.

The inputs to an organization are seen as participant needs which require satisfaction, the output is the satisfaction of these needs. At any given time, there is a difference between what is and what is aspired to. This gives an indication of the current level of effectiveness of the organzation and also produces an impetus for change in the system.
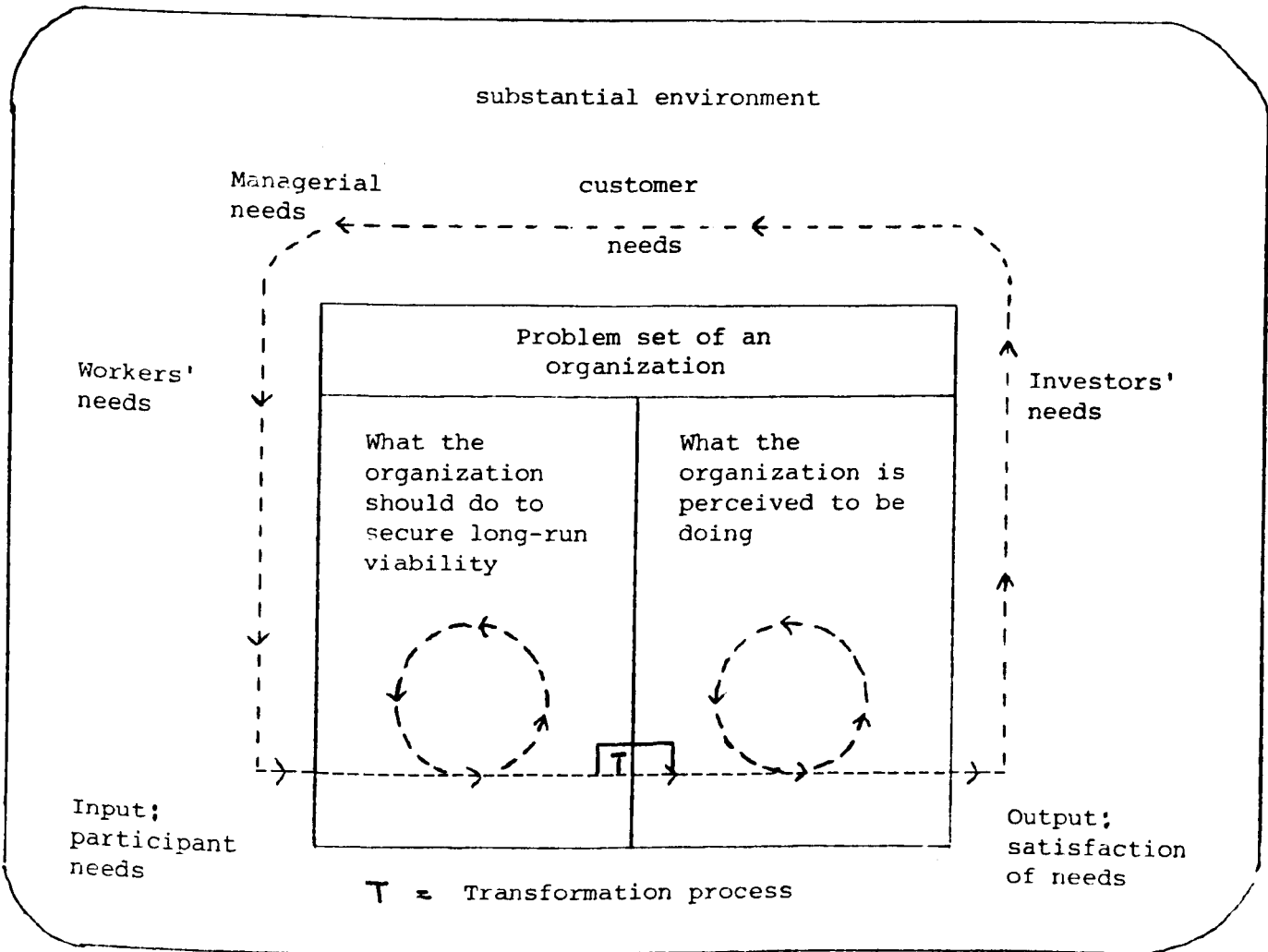
Diagram 8.1: The Organization as a Need-Satisfier

Change may be an act of response on the part of the organizational coalition to disturbances from the environment. It may also be an act of proactive change which stems from the forward action of the organization in an attempt to control its environment. As Child (1972a) points out organizations often do possess strategic choice and the more powerful coalitions are able to manipulate their environments such that they become more favourable to the activities of the organization. Indeed, Ashby (1956) points out that a system that is controlled by feedback is not an efficient or in our terms effective machine. Without a regulator that produces feed-forward information and action, it is probable that disturbances from the system's environment will be able to affect the workings of the system.

8.3 The Measurement of O.E.: the Development of Indicators of the Propensity to Survive

By defining O.E. as the attainment in the long-run of a minimally satisfactory level of negotiated welfare, this theory has close affinities with the Barnard-Simon theory of "organizational equilibrium". (Barnard, 1938; Simon, 1947). The concept of equilibrium reflected the conditions of survival of an organization: these being the organization's success and ability in arranging payments to its participants such that they were adequate enough to motivate continued participation. Simon et al (1950) wrote, for example that

> "an organization is 'solvent' - and will continue in existence - only so long as the conditions are sufficient to provide the inducements in large enough measures to draw forth these contributions." (p. 382, Simon et al, 1950).

They argued that each participant will continue his participation in an organization only so long as the inducements offered him are great or greater (measured in terms of his value and in terms of the alternatives open to him) than the contribution he is asked to make. The emphasis on "the decision to participate" underlies, as can be seen, both the Barnard-Simon theory and Tinker's argument of the CF-set .

March and Simon (1958) wrote a useful discussion on how such a theory of "organizational equilibrium" might be verified. Specifically, to test the theory they argued that we would need to obtain independent empirical estimates of

"(a) the behaviour of participants in joining, remaining in, or withdrawing from organizations; and

(b) the balance of inducements and contributions for each participant, measured in terms of his 'utilities'." (p. 84, March and Simon, 1958.)

They then pointed out that direct observation of the inducement-contribution utilities could be approximated by a measure of expressed satisfaction used in conjunction with an estimate of perceived alternatives available. This is because the act of moving to or from a coalition is dependent on both the desire to move and the perceived ease of movement. Diagram 8.2 below shows March and Simon's (1958) argument about the determinants of the act of participation.

An alternative method of verifying their theory was to infer the utility balance directly from observations of changes in the inducements or contributions measured in nonutility terms. However, their method required that certain assumptions be made about the utility functions of participants.[1] The initial method seems preferable as it requires fewer assumptions to be made about participants' utility functions.

It should be noted that March and Simon's use of the term "participation" is somewhat ambiguous for they appear to include within this concept the act of production or the decision to produce. Here we wish to draw a distinction between these two sets of decisions and actions. They are by no means synonymous; the greater the degree of "organizational slack", the greater would be the divergence between the act of production and that of participation. We, therefore, put forward two propositions instead of one. In addition to March and Simon's proposition about the act of participation

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1 These were (a) that each utility function changed only slowly,
(b) each utility function is monotonic with respect to its corresponding inducement or contribution, and
(c) the utility function of fairly broad classes of people were nearly the same.

we propose a symmetrical hypothesis about the act of production. This is

shown in Diagram 8.3.

Participant Expressed Satisfaction ──────→

                                    ──────→ Participants' Behaviour in
Joining, Remaining and
Leaving the Coalition

Perceived Employment Opportunities ──────→
(Time Usage)

        Inducement-Contribution
        Balance of Participants
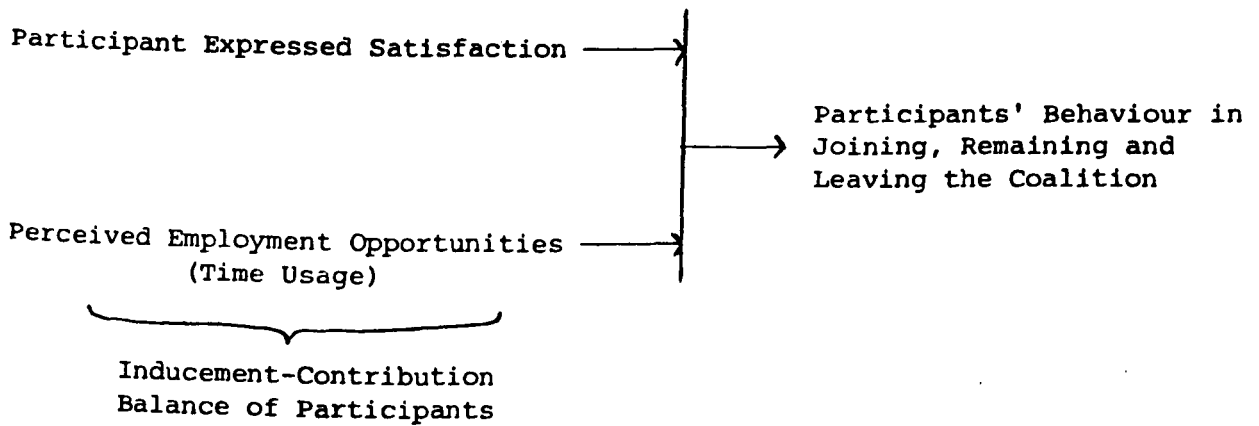
Diagram 8.2: The Act of Participation

Participant Expressed Satisfaction ──────→

                                    ──────→ Participants' Behaviour in
Remaining Within the Coalition
and Contributing Positively to
the Coalition's Need-
Satisfying Activity.

Perceived Employment Opportunities ──────→
(Time Usage)
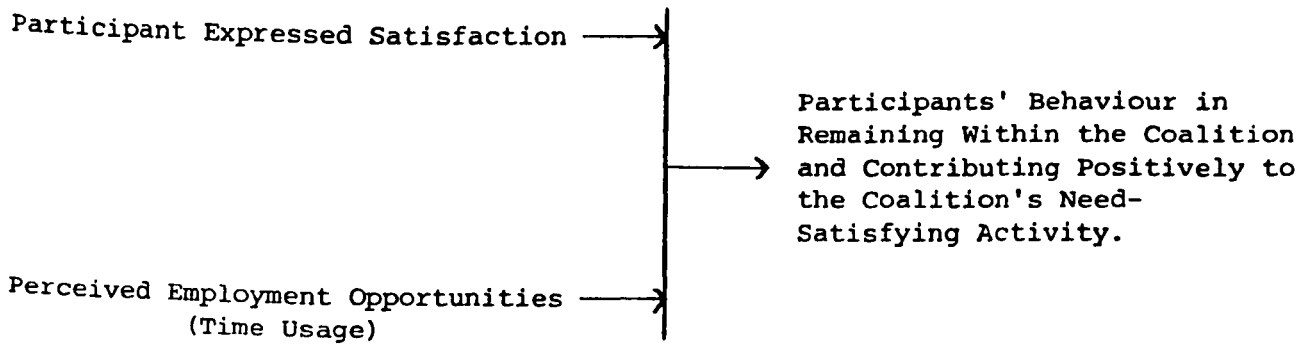
Diagram 8.3: The Act of Production

The foregoing analysis has argued that long-run survival is based on two factors:

(a) the extent to which the organization as a whole satisfies the needs of all its participants in such a fashion as to induce continued participation and production (contribution) and,

(b) the extent to which the coalition adapts to change and initiates change which creates a more favourable environment.

March and Simon's work gives an indication of how we could measure (a). Put differently, their work implies that the level of need satisfaction, or the level of acceptability of organizational strategies is expressed via participant behaviour in participation and production. It is through an examination of past and current behaviour that one infers and predicts the subjective probabilities of the coalition's propensity to survive in the long-run; the accuracy of such predictions depending variously on the rate of environmental and systemic change. Measures of O.E. (as defined) must, therefore, be measures of participants' behaviour in the area of participation and production. Verbal expressions of satisfaction and perceived alternative opportunities only reflect a participant's felt inducement-contribution balance. This perceived level of need satisfaction is more concretely expressed in behaviour. Theoretically, if the inducement-contribution theory holds, there should be a correspondence between this balance and behaviour (assuming human consistency in action).

Measures of this aspect of O.E. may be conveniently separated into measures of the act of production and the act of participation. As regards the act of production, we could measure sales performance, profitability, "professional" behaviour, level of competence, level of ethical support etc. Indicators of the act of participation would include, inter alia, measures of turnover, absenteeism, lateness, tardiness. Obviously the choice of particular measures of participation and production would depend on the system under study. Variances in systems technology and primary

task-activity would lead to different measures becoming more or less appropriate.

To assess whether an organization is effective at a point in time, measures of viability as expressed in participant productive and participative behaviour would suffice. However, how does one measure the propensity to survive in the long-run? The answer lies in the necessity of coping with change. As outlined earlier, the act of long-run survival within the F-set means appropriate response to change through time. Ashby has called this requirement of the system the Law of Requisite Variety (this will be discussed in detail later). However, according to Ashby's formulation, it would appear that an observer can only decide with increasing statistical confidence whether a system possesses requisite variety by tracking a system's response through time. At a point in time, we argue that an observer can but measure a system's adaptive capacity which is a surrogate indicator of the system's degree of requisite variety and hence a surrogate indicator of the organization's propensity to remain viable in the long-run. Adaptive or coping capacity is defined as the ability of a system to change regularly and innovatively. It measures an ability to change at a point in time and makes an assumption that change is in the appropriate direction. As such, it is a distinct concept from that of Ashby's Requisite Variety which it is argued can only be measured through time. Adaptive capacity and requisite variety are related and the former is arguably a surrogate for the latter to the extent that past adaptive capacities within a system reflects future capacities. This is because the assessment of a system's adaptive capacity at a point in time is based on past responses to change and the observer then extrapolates to derive a surrogate measure of long-run appropriate change. Strictly speaking the concept of adaptive capacity is more a means to the end state of long-run maintenance of the F-set than an adequate end in itself but as argued above, in cross-sectional studies it becomes a useful predictor. In addition, to the extent that coping/adaptive capacity indicates the ability of a

system to move as an integrated whole in response to or to counter change, it may be said to measure O.E. per se by measuring the degree to which a viable balance amongst conflicting participants' inducements and contributions has been achieved. As Friedlander and Pickle (1968) showed empirically, different participant groups often make diverse demands on each other which are incompatible (negatively correlated). Therefore, it is a feasible balance in the long-run that characterizes the effective whole. The higher the adaptive abilities of a system at a point in time, the greater confidence an observer has that a viable, integrated balance is being achieved within the coalition for a lack of balance would show in a system not being able to adapt easily as an integrated whole.

In essence, this second measure of adaptive capacity when contrasted with the first set of participant behaviour reflects the part-whole controversy of the measurement of organizational effectiveness. On the one hand, we have measures of effectiveness which are descriptions of participants' behaviour and which indicate the level of participant need satisfaction. We see the parts (the coalition) and then as in gestalt psychology we see the whole. But both are parts of the same reality. Therefore, it is essential that measures of O.E. should capture these two aspects. As Von Bertalanffy (1968) points out the whole is not a simple sum of its parts; there are intricate and complex interactions between parts which give the whole an identity that is independent of its parts. Therefore, in measuring the effectiveness of a system in maintaining a point in the F-set in the long-run it is insufficient purely to monitor the levels of satisfaction (as expressed in behaviour) of each participant group. A simple total of these various levels will not indicate the state of the whole of the F-set. Holistic measures of the viability of the system are also required.

Our concept of adaptive capacity as a surrogate measure of an end state of effectiveness is often called "adaptability". As Steers (1977) points out, this concept is one of the most widely used measures of O.E. However,

it tends to be interpreted in a variety of ways and measured differently (cf. Mott, 1977; Caplow, 1964; Tinker, 1975). In order to avoid this kind of confusion three forms of adaptive ability are defined. First, the concept of flexibility - which assesses the organization's ability to react swiftly to novel, unprogrammed, unexpected change. Examples of such responses to action would include reactions to accidents, emergencies, breakdowns, sudden stoppages. Second, the concept of adaptability which refers to the ability of an organization to respond to programmed, regular and predictable changes. A system's adaptability may, for instance, be measured via its response to predictable demographic changes or changes in the client population. Third, the concept of innovation, which measures the ability of an organization to change proactively by inventing and creating structures and/or processes which counter both forms of programmed and unprogrammed change. This concept is intended to assess not the response potential of a system to change but its active potential. Flexibility and adaptability measure the past and current capacity of the system to change itself in response to environmental demands whilst innovativeness measures the system's ability to change and control its environment.

These three concepts are hypothesized to be distinct though related facets of the concept of adaptive capacity. Therefore, it is expected that empirically these three measures would show a moderate positive statistical correlation. High correlations are not expected as this would throw doubts on the validity of these three measures being distinct and separate dimensions. Our first hypothesis may, therefore, be stated as below:

H1 = Flexibility, adaptability and innovativeness are positively correlated with each other.

It is also hypothesized that there will be a statistically significant relationship between measures of participant behaviour, our first set of O.E. measures and adaptive capacity. This is because both are argued to be measures of an underlying construct - O.E. Our second and third hypotheses are:

H2 = High levels of Adaptive Capacity are positively related to high

levels of production and participation.

H3 = The higher the level of adaptive capacity, the higher the level

of production and participation.

We have now concluded our discussion of the measures of O.E. and the

relationship between them. These measures are summarized in Table 8.1 below.

In the next section we shall look at the complex issue of the determination

of levels of O.E. given these measures of O.E.

	PART		WHOLE
	Measures of the Level of		**Measures of the Level of**
	Participant Need Satisfaction		**System's Adaptive Capacity**
(a)	**Act of Production**		Flexibility
	Sales		Adaptability
	Profitability		Innovativeness
	Productivity		
	Financial Support		
	Community Support		
	Growth		
	"Professional" Competence		
(b)	**Act of Participation**		
	Turnover		
	Absenteeism		
	Lateness		
	Strikes/Stoppages		
	Number of Complaints		

Table 8.1: Measures of O.E. defined as the Propensity

to Survive in the Long-Run

8.4.1 <u>The Determinants of O.E.</u>

The extensive review in chapter 2 has demonstrated that most research in O.E. has been within the functionalist paradigm. Despite this essential commonality of epistemological and ontological assumptions which undergirds such research, there is, nevertheless, immense variety in the specification of determinant variables. This large number of probable influences has been classified into:

(a) Organization Structure   (e) Employee Characteristics

(b) Technology   (f) Organizational Climate

(c) External Environment

(d) Managerial Policies and Practices   (Steers, 1977)

In Steer's discussion of each of these factors, a plethora of variables present themselves as influencing the level of O.E. A similar but less specific classification of contingent variables is made by Otley (1980) who argues that a minimally satisfactory contingency framework of management accounting should analyze:

(a) variables that cannot be influenced by the organization e.g. certain environmental relationships;

(b) organizational objectives;

(c) organizational control packages e.g. accounting information systems, management information systems, organizational design, etc.;

(d) intervening variables that are thought to "pre-dispose an organization towards effective rather than ineffective operation".

(e) Other factors(!)

Like Steers, Otley argues that a contingency framework suggests complex and multi-layered relationships which possess feedback loops. Indeed, he believes that it is sheer folly to attempt to construct a contingency theory of accounting systems design without a consideration of the overall organizational perspective that takes into account other control strategies such as personnel selection, promotion rules, investment plans etc. - a potentially infinite number of variables.

It is interesting to note that both Steers (1977), Otley (1980) and other reviewers of the O.E. literature (Pennings and Goodman, 1977; Spray, 1976) specify more complexity in organizational or systemic variables such as information systems, organizational design, managerial policies, employee characteristics etc. That is, there is a more abundant specification of organizational variables which are thought to influence the level of O.E. That this is so, is not surprising since social scientists within a functionalist paradigm are guided by a technical interest in the notion of O.E. They are concerned with discovering means by which a micro-organization might achieve O.E. (defined "technically"). There is, therefore, a natural tendency to attempt to discover ways by which an organization might cope with environmental variety by manipulating variables under its control. Factors which are relatively less controllable, for example, certain environmental variables are correspondingly less well-defined and organization theorists and accountants have tended to characterize the environment with only a small number of dimensions (see Child, 1972b; Aldrich, 1979). By contrast, the number of "relevant" organizational or controllable systemic variables is extremely large and appears to become even larger with each subsequent review of the literature.

In the face of such a variety of possible contingent influences on O.E. Otley (1980) rightly suggests a control-based approach to the study of such complex relationships. He argues that greater attention should be focussed on the "unpredictability of variables crucial to organizational success". But how does one gauge which variables are crucial? Unfortunately, Otley gives few guidelines and his contingency framework offers but the most vague suggestions in a myriad of directions. It is argued that a selection of "appropriate" variables must emerge from a priori theoretical reasoning and a survey of current literature. In the next section, we look at Ashby's Law of Requisite Variety and the empirical support thereof in order to devise an empirical model of the determinants of O.E. to yield fresh insights on a confusing area.

Such a method of progress has a long history in traditional accounting and organizational theory; being rooted in the realm of hypo-deductive research of the so-called natural scientific method . Though its dominance has rightly been called into question this section of the thesis seeks to show its usefulness and the benefits of the kind of scientific rigour it demands. Simultaneously, we seek to expose its limits and the folly of depending on positivist and statistical insights alone.

The reasons for choosing a cybernetic theoretical framework have already been discussed when we explained a preference for the ideas of the CF-set of Tinker (1975). This set of ideas analyses complex relationships holistically and draws attention to the relationship between a system and its environment. Further, it makes explicit the prescriptive basis on which it is based (albeit in the last section of this thesis we argue that this prescriptive norm has a conservative bias). Though we have found it necessary to reformulate its structure and extend the F-set in defining the concept of viability, the theory of cybernetics does provide a starting point for looking at the determinants of O.E.

8.4.2 Ashby's Law of Requisite Variety

Ashby (1956) defines variety as the number of distinguishable elements in a set. Thus, for example, if the order of occurrence is ignored, the following set

c, b, c, a, c, c, a, b, c, b, b, a

has three distinguishable elements and is said to have a variety of three elements. Ashby, however, cautions that a set's variety is not an intrinsic property of a set but depends on the observer and his powers of discrimination. Thus the two-armed semaphore can place each arm, independently, of the other, in any of eight positions; so the two arms provide sixty-four combinations. At a distance, however, the arms have no individuality - "arm A up and arm B down" cannot be distinguished from "arm A down and arm B up" - so to the distant observer only thirty-six positions can be distinguished, and the

variety of this set is then thirty-six, not sixty-four. Therefore, the variety of a set or system is the number of distinguishable elements/states which are perceived by an observer.

Since the number of states or different elements present in a set may be very large, variety is more conveniently measured in logarithms. Specifically, it may be measured as "bits" by taking logarithms to the base of 2. Thus, the variety of the sexes is $\log_2 2$ which is 1 bit, whilst the variety of fifty-two cards is $\log_2 52$, which equals $3.322 \log_{10} 52 = 3.322 \times 1.7160 = 5.7$ bits. The word "bits" is a shortened form for the words "binary digit".

Relating the idea of effective systemic control to the flow of variety, Ashby has formulated the Law of Requisite Variety. In order to illustrate this law, we use Ashby's example of two players playing a game. Diagram 8.5. shows a payoff matrix of the outcomes of different strategies followed by the players S and E.

			S	
		α	β	γ
	1	. b	a	c
E	2	a	c	b
	3	c	b	a

Diagram 8.4: The Matrix of Payoffs Between S and E

The rules are as follows: (1) S must score on a in order to win, and (2) E must play first, by selecting a number, and thus a particular row. S, knowing his number, then selects his strategy denoted by Greek letters, and thus a particular column. The letters a, b, c represent the outcomes of different combinations of strategies. As we can see, in this particular game, S always wins. Whatever value E selects first, S can always select a strategy that will give a desired outcome. In fact, if S acts according to the transformation

$$
\begin{array}{ccc}
1 & 2 & 3 \\
\downarrow & & \\
\beta & \alpha & \gamma
\end{array}
$$

he can always force the outcome to be a.

Ashby goes on to show that if the same rules are followed and E has more moves than S, then S may not always be able to effect a desired outcome. In effect, if V_E be the variety of E, V_S that of S, and V_O that of the outcome (all measured logarithmically) then V_O cannot be less numerically than the value of $V_E - V_S$. Thus V_O's minimum is $V_E - V_S$.

If V_E is given and fixed, V_O can only be lessened by a corresponding increase in V_S. Thus if the variety in the outcomes is desired to be minimal, then there needs to be a corresponding increase in that of S. Ashby calls this theorem, the Law of Requisite Variety and says picturesquely that only variety in S can force down the variety due to E; only variety can destroy variety.

We may extend this analysis to an analysis of the F-set. Diagram 8.5 shows a similar payoff matrix. The players are now S (systems regulator) and E (Environmental Disturbances). The set of outcomes, O, is represented by the score possibilities 1, 2, 3, 4, 5, 6, 8, 9. Score possibilities which are asterisked represent outcomes of coalitional interaction which are within the F-set. To illustrate, when the state of the environment is E, the system may choose to respond with any one of the strategies within the E_1 column. However, only strategy S_2 produces an outcome that is minimally acceptable to all participants. Similarly, if the system decides to choose an environmental state, E_3 then it has chosen non-survival, for for none of the strategies S_1 to S_5 in column E_3 produces a viable outcome. As Tinker (1975) shows in his illustration of Ashby's Law, a reduction in the number of alternative strategic responses means that the variety of the outcomes is likely to be a function of the variety of the environment. That is, if the system is capable of using only strategy S_2, whatever the state of the environment, E, then a feasible outcome will only be established when E_1 holds. With the strategy fixed in the face of a changing environment, it is the environment that exerts primary control over the variety in outcomes.

		E			
Environmental Disturbances States of E Strategic Responses States of S	E_1	E_2	E_3	E_4	E_5
S_1	1	3*	6	4	2*
S_2	4*	4	2	2	3
S_3	6	1	3	3*	1
S_4	9	3*	6	9*	2*
S_5	2	5	1	8	5

Diagram 8.5: Requisite Variety in the F-Set

* Feasible Strategies

If the restriction on the strategist's behaviour is relaxed from one to two choices, in general the variety of final outcomes is likely to reduce. If all restrictions are removed, the position is equivalent to Diagram 8.5 where the system has been able to limit the outcomes in a majority of cases to outcomes that are feasible. The system is then said to prossess requisite variety. In other words, in order that the system always remains within its F-set, it must produce sufficient variety to match and "kill" environmental variety.

The determimants of long-run survival may now be stated initially as

$$O.E. = f(S, E)$$

or diagrammatically as

E $\longrightarrow$

$\longrightarrow$ O.E.

S $\longrightarrow$
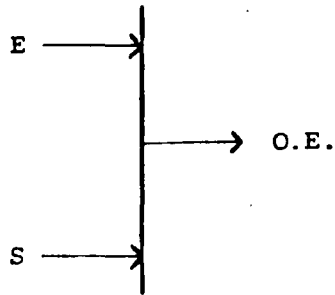
Diagram 8.6: Ashby's Law of Requisite Variety for O.E.

O.E., organizational effectiveness, is defined as the achievement of a point in the extended F-set in the long-run. Performance is shown to be a function of the match through time between E (environmental state) and S (strategic or systemic state). That is, long-run survival is ensured if the system possesses variety. The necessity of a match is shown by the single-headed arrow proceeding from the interactive effects of S and E. This interpretation of Ashby's Law of Requisite Variety is in fact a stronger statement of conventional contingency theories of organization. For not only does it imply that both E and S influence O.E., but that there needs to be an appropriate "match" or "fit" between these two states if the performance of the system is to be maximized.

We term this the strong form of contingency theory. As Schoonhoven (1981) rightly complains, there is a lack of clear specification amongst different contingency applications. In order to overcome this, we differentiate between strong and weak forms of theory. The above strong form may be expressed mathematically as:

$$O.E. = \frac{(1)}{|E - S|}$$

That is, given the value of E, there is a matched state of S that produces

the highest value of O.E Deviations from this relationship in either direction

reduce the value of O.E. Even stronger statements of Ashby's Law can be made

which specify, for example, that high levels of environmental complexity must

be matched by high levels of strategic flexibility whilst low levels of

environmental complexity must be matched by low levels of strategic flexibility.

The weak form of contingency theory and of Ashby's Law, however, only

specify that E and S are determining influences. This relationship may be

represented diagrammatically as below:
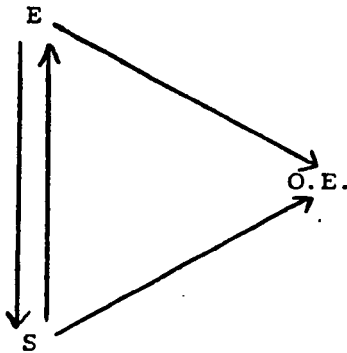
Diagram 8.7: Weak Statement of Ashby's Law
For O.E.

This shows that there is a two-way interaction between E and S which allows for direct and indirect effects of the states of E and S on the level of O.E. No detailed specification, however, is made of the required fit between E and S. Mathematically, this weaker statement of Ashby's Law is often written as

$$O.E. = \alpha_1 + \alpha_2 E + \alpha_3 S$$

That is O.E. is a linear additive function of E and S through time. Multiplicative relationships between S and E are not hypothesized, these belong to more complex and stronger statements of Ashby's Law.

It should also be noted that E and S are measured states of a system at a point in time, their precise nature depending on the manner of characterization of the environment and the system. If S matches E as in the strong form of Ashby's Law, we speak of a match of states at a point in time. If S and E influences O.E. in the manner argued by the weak form, we speak of the influence of particular states of the system and the environment on the level of organizational effectiveness. As argued previously, we can only measure the requisite variety of a system if we conduct a historical and/or longitudinal study of a system and map its response to its environment.

There is considerable theoretical support for the strong form of Ashby's Law. Von Bertalanffy (1968) for instance describes several (high variety) organismic systems and (low variety) mechanistic systems in sociology, history and psychology. His concept of equifinality is a high variety characteristic that is illustrated by, inter alia, the adaptive mechanics of an embryo. During the early stages of development, an embryo has few direct experiences and, therefore, little basis for structuring feedback patterns in order to govern its responses. Instead, in these early stages, it relies on its innate qualities to respond to the "surprises" of its development (Bertalanffy, 1962).

As in general systems and open systems theory, so in cybernetics management, we find S. Beer (1975) arguing that regulatory institutions at the societal level and management control mechanisms at the enterprise level (Beer, 1966;

1972)   have insufficient variety to cope with the environmental demands placed on them. He argues that for requisite variety in systems we require (a) requisite   equal   balance between application of regulatory variety and attenuation of environmental variety (b) requisite channel capacity for variety transmission and (c) requisite transduction capabilities for variety preservation.

Though theoretical support for both the strong and weak forms of Ashby's Law is strong, the extent of empirical support especially for the strong form of the theory still rests on the early pioneering work of Chandler (1962), Burns and Stalker (1961), Lawrence and Lorsch (1967) and Aiken and Hage (1971). A brief summary of their results is presented below.

Chandler (1962) conducted a historical analysis of nearly one hundred major U.S. business concerns. Based on these case studies, he concluded that each major change in the design or structure of these organizations resulted from environmental shifts that necessitated such changes. More specifically, changes in the external environment (e.g. in customers, markets, etc.) were seen as creating demands on an organization to modify its strategies in dealing with the environment. These strategic changes in turn necessitated changes in organizational structure. Chandler further argued that growth or change (in the external environment and in corporate strategy) "without structural adjustments can lead only to economic inefficiency". Chandler's concept of appropriate structural change is clearly closely allied with Ashby's concept of appropriate strategic response to environmental disturbances. However, his work tended to demonstrate an environmental determinsm which is but part of Ashby's theory. There is little mention of the other part, of the proactive nature of strategic response. Such a failure may be due to Chandler's methodology of historical analysis and his time period of analysis.

Other support for Ashby's Law stated in its strong form appears to be found in the work of Burns and Stalker (1961) and Aiken and Hage (1971). Burns and Stalker found from a study of firms in the Scottish and English

electronics industry that the firm's management structure ranged over an organic-mechanistic continuum. In addition it appeared that "successful" (profitable) firms were those with management structures that "matched" the environmental conditions. Specifically, they found that an organic style of management was associated with success in uncertain conditions and a mechanistic style was more profitable in more stable environments. Aiken and Hage (1971) replicated Burns and Stalker's work and substantiated these conclusions. When we reinterpret Burns and Stalker's propositions in the language of cybernetics, it may be argued that their management style represents a form of strategic response and that organizational performance was maximized when there was a "match" between environmental states and strategic response. When there was high levels of uncertainty and change there was a concomitant requirement for the system to be flexible and organic in management style. Here E has been characterized in terms of uncertainty whilst S has been described in terms of management style.

Empirical support in the same vein of thought is found in the work of Lawrence and Lorsch (1967) who found in a single industry that greater changeability was required by firms to deal with high sub-environmental uncertainty (i.e. in market, scientific and technical sub-environments). They concluded that the higher the instability in the environment, the more psychological differentiation was needed between departments in order to be effective. This result will be discussed later in the thesis. In addition, different levels of environmental uncertainty required different forms of integration, the higher the amount of uncertainty, the more complex the integrative mechanism required. Lastly, they argued that given the level of external environmental uncertainty, the more effective organization had higher levels of differentiation and integration. Again, one could infer from these findings that differentiation and integration represented facets of strategic action and that an optimal fit between E and S led to greater effectiveness, measured in profit terms.

We come now to evaluate the strength of these empirical studies in confirming the strong form of Ashby's Law. Mention has already been made of the methodology of Burns and Stalker and Lawrence and Lorsch for they used only measures of association to advance their arguments; a consequence, in fact of the emergent nature of their contingent propositions. Like Woodward (1965), they did not explicitly use a contingency framework but contingent results were perceived to have "emerged" either within the study itself or when its results have been interpreted in conjunction with those of other comparative work. Rather more rigorous methodology such as that applied by Schoonhoven (1981) in her study of the relationship between structural characteristics and technological uncertainty was not applied. Further, some criticisms have been made of the manner in which these researchers conceptualized and measured certain variables. Tosi et al (1973) throw considerable doubt on Lawrence and Lorsch's measure of environmental uncertainty and the adequacy of their findings.

Secondly, these studies only looked at a specific facet of strategic action - Chandler at changes in structure, Burns and Stalker at management style and Lawrence and Lorsch at levels of differentiation and integration. One is, therefore, unable to gain a holistic picture of the dimensions of S, of the stable characteristics of a system that vary with environmental states in order to influence the level of organizational effectiveness. Indeed as mentioned earlier, characterizations of systemic response and proactivity to environmental states have been splintered into a kaleidoscope of research on structure, technology, job design, climate, managerial leadership, organizational control packages etc. Much of this research is not well integrated and indeed has tended to solidify into two lines of inquiry, neither of which can be used to confirm either the strong or weak form of Ashby's Law of Requisite Variety. One of these lines of inquiry concentrates on the detailed relationships amongst different facets of strategic response, for example, on the relationships amongst different structural characteristics such as formalization, standardization and centralization (Pugh and Payne, 1976);

on the relationship between structure and technology (Woodward, 1965), structure and job design (Oldham and Hackman, 1981), structure and organizational climate (Payne and Pheysey, 1971) and the degree of employee participation in decision-making and climate (Dieterly and Schneider, 1974). The other area of research concentrates on the direct relationship between different characterizations of systemic variety and the level of O.E. For instance, the Woodward study looks at the relationship between structure, technology and O.E.; the work of Litwin and Stringer (1968) looks at the relationship between management style, climate and individual measures of satisfaction and production and the work of Brass (1981) attempts to trace the influence of structure and job design on organizational performance. Clearly, these two lines of research do not tap the richness of Ashby's Law, they do not measure all three variables - S, E and O.E., and therefore cannot be used to confirm either the strong or weak forms of Ashby's Law.

To digress for the moment, this same criticism may be applied to most research that has concentrated on the E side of the equation. The work of Dill (1958), Thompson (1967), Emery and Trist (1965) and Duncan (1972) have all concentrated on explicating the relationships between different dimensions of E. Attention has been focussed on notions such as complexity in the environment, stability, homogeneity etc. Similarly the work of Osborn and Hunt (1974) has looked only at the direct relationship between characteristics of the environment and measures of O.E. They carried out a study that focussed specifically on three dimensions of environmental complexity: the amount of risk in organization environment relationships, environmental dependency and the favourableness of inter-organizational relationships and tried to show the links between these dimensions and measures of effectiveness in a sample of social service agencies. They did not intend to and, therefore, did not measure dimensions of S.

In conclusion then, we may validly decide that empirical support for a strong statement of Ashby's Law is weak. Much research carried out today does not specify measures of all three parts of the theory - S, E and O.E.

What little research that does suffers from methodological problems and characterizations, particularly of S, are fragmented and poor.

What then of the weak operationalizations of Ashby's main propositions? Two clear examples of these lie in the work of Hayes (1977) and Tinker (1975). Hayes looked at one set of environmental factors, two sets of organizational factors (organizational subunit interdependence, factors internal to the subunit of interest) and the relationship of each of these on subunit effectiveness. He argued in his theoretical discussion that it was the type of subunit interdependency, the type of environment and the type or nature of internal factors which would affect the efficacy of managerial processes and consequently organizational assessment methods and O.E. His theoretical discussion would seem to imply a strong form of Ashby's Law but as Tiessen and Waterhouse (1978) point out his empirical testing reveals only a weak statement of Ashby's Law. For Hayes does not distinguish amongst different forms of systemic interdependence or levels of environmental variety. Though discussions of these are given, interdependence is analysed as stable pooled, sequential and reciprocal and environmental variety is characterized as stability and homogeneity, Hayes does not show the interaction between distinct forms of S and E and the consequential effects on O.E. What he does demonstrate is the independent contributions of contingency variables per se to the explanation of performance in a particular department type. He therefore argues that it is the differential presence of contingency dimensions, rather than their specific form which directly imparts the importance of particular performance explanators. To this end, his use of path analysis demonstrates well the direct and indirect contributions of each of these factors on the level of O.E. Though Hayes is rightly criticised for his inconsistent mode of empirical testing and his measure of subunit effectiveness, nevertheless his research lends considerable support to the principles behind a weak statement of Ashby's Law of Requisite Variety.

The work of Tinker (1975) is again a weak operationalization of Ashby's

Law. He looked at the differential presence of measures of E and measures of "adaptability" and their effect on O.E. within a single organization. Like Hayes, he did not specify the influence of different levels of environmental variety or "adaptability", neither did he test the necessity of a fit between these two variables. Instead, using multiple stepwise regression he demonstrated the independent effects of E and "adaptability" on O.E. Though the R^2 of his regression equations were high, meaning that the proportions of explained variance were high, his empirical results were subject to much intercorrelation amongst his predictor variables and he was not able to delineate the specific contributions of E and "adaptability". In addition, it is felt that his characterization of S is highly suspect as "adaptability" should more properly be conceived as a surrogate measure of O.E.

The work of Moorhead (1981) in organization theory is yet another tentative statement of a weak form of Ashby's theory. Moorhead argued for combining "macro" and "micro" approaches to organizational analysis and drew an integrated model which looked at the influence of the environment and technology on organizational structure and worker job and role variables and the consequent effect on individual processes of performance and satisfaction. Moorhead's suggestions are helpful in that he begins to integrate various facets of strategic response (technology, structure and job design) and links these to environmental variables (simplicity, stability) and measures of O.E. (performance, satisfaction). However, his analysis did not proceed beyond an examination of correlation coefficients amongst his variables and, therefore, one is unable to assess the strength of causal mechanisms. Nevertheless, fifteen out of his forty-five correlation coefficients were statistically significant and indicate that valid relationships exist between characteristics of the environment, structure and O.E.

The degree of empirical support for a weak statement of Ashby's Law seems, therefore, slightly stronger than that for a strong interpretation of his theory. This is not surprising since the "matching" or "congruence" imperative of the latter presents severe statistical problems when one

attempts to analyze a larger number of contingent variables. Schoonhoven (1981) presents some illustration of this difficulty which is even more compounded when all three measures of O.E., S and E are vectors rather than single measures. It is important to remember that both Burns and Stalker and Lawrence and Lorsch analysed only two contingency variables via a series of contingency tables; this tool is, however, crude and its application extremely cumbersome when more variables are involved. Not only is support for a weak statement stronger and "easier" to obtain in view of operationalization problems, it is also the more expedient method in trying to derive and integrate a number of facets of systemic response. In the next section, we shall discuss in detail the characterizations to date of the concepts of E and S. It will be shown that whilst dimensions of E are fairly well-defined, characterizations of systemic response are diverse. Whilst we are convinced that a weak statement of Ashby's Law seems theoretically valid, the next section amply illustrates the difficulties of empirical operationalizations of his concepts of E, S and our technical definition of O.E.

8.4.3 Operationalizations of E and S

With the rise of open systems theory, general systems theory and to a lesser extent cybernetics in the 1960s, the "environment" as a concept in determining organizational performance began to gain importance. A distinction is usually drawn between external environments and internal environments, the latter also being called "organizational climate". Measures of external environments include "objective" measures such as rates of technological change, unemployment, government regulations and so on as well as perceptual measures such as the degree of complexity, instability and illiberality. By contrast, measures of internal environments tend to be largely perceptual in origin though "objective" measures could theoretically be employed e.g. the number of times a superior was approached for advice. As Klir (1969), Beer (1972) and Starbuck (1976) have pointed out, the definition of a systems boundary is a self-referential process and depends

largely on the analyst's definition of a system. Closure of a system

signifies that all the necessary and sufficient conditions for a system's

"independent existence" at a given level of resolution are present. To

the extent that different systems could be drawn from the same physical or

legal entity depending on the level of resolution, boundary definition is

of necessity a fuzzy business. The system often intrudes into the environment

and vice versa; both parts form a bigger social totality and systemic behaviour

can only be explained as a complex, dialectical result of forces which are

but temporarily drawn as "internal" and "external". Bearing this condition

in mind, it is argued that the concept of E in Ashby's formulation closer

approximates the construct of "external" environment and that the "internal"

environment is a property perceived to belong to the system. This is because

there is an implict bias in Ashby's work to conceptualize E (or disturbances)

as representing factors less well controlled by the systemic regulator;

although it is not denied that in some instances a system may be able to

control and choose its environemnt.

As such, we turn to the conceptualization of external environments to

help specify dimensions of E. The external environment is often differentiated

into an organization's task or substantial environment (which contain factors

more pertinent to the focal organization's goals and task) and its general

environment (Brown, 1969; Dill, 1958; Thompson, 1967; Lowe and McInnes, 1971).

It is then usually characterized "objectively" by a series of abstract

dimensions (Emery and Trist, 1965; Terreberry, 1968; Thompson, 1967; Duncan,

1972; Osborn and Hunt, 1974). In a review of these dimensions, Aldrich (1979)

quotes six: environmental capacity (degree of resource scarcity), homogeneity

(degree of differentiation), stability (degree of turnover), concentration-

dispersion (pattern of resource distribution), domain consensus-dissensus

(degree of territorial dispute) and turbulence (degree of coupling). Similarly,

Child (1972b) quotes three: variability, complexity and illiberality. These

dimensions have also been adopted by other researchers in the accounting

context, for example, Hayes (1977), Waterhouse and Tiessen (1978) and Gordon and Miller (1976) and Lowe and Oliga (1981). The dimensions used were - dynamism, heterogeneity, hostility (Gordon and Miller), predictability (Tiessen and Waterhouse) and complexity, variability, illiberality (Lowe and Oliga).

As can be seen there is considerable consensus amongst researchers as to the validity and robustness of characteristics of the environment. To some extent, this agreement is a product of accounting theorists borrowing from organization theory concepts of environmental variety. However empirical evidence does support the robustness of these characterizations which will be discussed in detail later. Whilst the concept of E may be fairly confidently described with the use of a small number of dimensions, the concept of S is harder to characterize. Indeed, "relevant" literature spans work on the study of organizational structure (Pugh and Payne, 1976), the study of technology (Woodward, 1965), job design (Oldham and Hackman, (1981),   management style (Burns and Stalker, 1961), decision-making (Simon, 1959), organizational control (Ashby, 1956; Beer, 1972; Bonini et al, 1964), organizational climate (Payne and Mansfield, 1973; Payne and Pugh, 1976), to the study of individual psychological needs and personalities (Porters and Steers, 1973; Holland, 1976).

Unfortunately, most of this research on strategic response and systemic action to achieve O.E. has been carried out in little niches with few attempts made to link them. Miles (1980) distinguished between "macro" and "micro" variables and levels of analysis in organization theory. As Moorhead (1981) explains "macro" approaches tend to take the organization as the unit of analysis and analyses variables such as organizational structure, design and climate. "Micro" approaches, on the other hand, tend to take the individual as the level of analysis and concentrates on variables such as role conflict, ambiguity and job design. Such terms, for example "structure, "technology", then become conceptual blocks in our intellectual map and each of these has

spawned a host of independent lines of inquiry. Effort has been expended on looking at relationships amongst "macro" variables such as structure and technology, amongst "micro" variables such as job design and role conflict and not at integrating "macro" and "micro" variables in order to characterize the system. Indeed, the very terms themselves serve to denote distinct areas of research.

In order to characterize the system, we repunctuate the problem of systemic characteristics differently. Instead of bracketing the intellectual map with measures of "structure" and "technology", we use the dimensions of differentiation, integration, supportiveness and uncertainty. These dimensions will be discussed in detail in the next section and their derivation justified. It will be shown that they encompass concepts traditionally separated into conceptual blocks of "macro" and "micro" variables.

Because of the more diverse nature of forms of strategic response, we begin our next section with an explication of each of the four characteristics of systemic action. We then proceed to delineate dimensions of environmental states.

8.4.4 <u>Characterizations of Systemic (Strategic) Action and Environmental</u>

   <u>States</u>

In developing a characterization of strategic or systemic action we draw on the work of diverse organization theorists which include, among others, the work of Lawrence and Lorsch (1967), Child (1972a), Galbraith (1973) and Aldrich (1979). We hypothesize that a system may be characterized with four primary dimensions. These are differentiation^S, integration^S, uncertainty^S, and supportiveness^S. (The subscript ^{S} denotes that these dimensions are characteristics of the system).

We define differentiation^S as the difference within the system of cognitive and affective orientations among participants. Cognitive differences include differences in task skills, perceptual abilities, language, values, purpose and goals. Affective differences are differences in the psychological make-up of coalitional participants, for example, differences in personalities, needs and drives. Following Lawrence and Lorsch (1967) our concept of differentiation^S refers not only to the specialization or "professionalization" of labour but also to what may be termed "psychological" departmentalization. Too often organization theorists ignore this vital aspect of differentiation, concentrating instead on the ostensible benefits of professionalization and the division of labour. Yet as Dearborn and Simon (1958) show, these perceptual differences lead to different conceptualizations of the "same" problem. In the same vein, though on a different philosophical basis, theorists in the interpretative matrix emphsize that different individuals and interest groups construct their "reality" in a unique fashion; such diff- rences . being rooted in the different life-worlds of individuals and groups.

Defined thus, our concept of differentiation^S is wide - referring to different value systems, different personal and group interests, different conceptualizations of the "same" problem situation, different needs and personalities. In effect, the concept measures the extent to which individuals and groups are differentiated and their members "cluster" in terms of

cognitive and affective structures. Burns and Stalker (1961) provide some elaboration as to how these forces of differentiation work:

> "In pursuing these private purposes which are irrelevant to the working organization, individuals affiliate themselves to groups, and seek to bind others in association. They acquire commitments. These commitments may persist in the face of an express need for the working organization to adapt itself to new circumstances. Further commitment involves some surrender of personal autonomy, not, this time in a bargain with employers and in return for money and other benefits, but in the hope of further material, or non-material rewards or in order to avoid discomfort, embarrassment or loss (perhaps of self-esteem). Commitment to others involves loss of autonomy in that the right to spontaneous, divergent action outside the group is surrendered in respect of the objectives the private combination has been constituted to attain. Voluntarily, or under such indirect restraints and controls as fear of ostracism, ridicule, or damaging criticism through gossip exchanges, individuals submit to their use as resources in pursuit of private ends tacitly or explicitly formulated by groups". (p. 98 - 100, Burns and Stalker, 1961)

Such sub-group formation, identification and conformity has been re-named "groupthink" by Janis (1975) who illustrates from graphic empirical examples such as the U.S. analysis of the Vietnam War and the Cuban Crisis that severe group conformity reduces variety by destroying "deviant" information. Thus where sensitive, responsive highly adaptive monitors are required, conservative stereotypes of an acceptable "code-of-conduct" may operate; low in quick strategic action but displaying conforming behaviour.

However, Lawrence and Lorsch (1967) argued that greater specialization, and in our terms greater differentiation was necessary for producing adaptive behaviour in organizations that faced high environmental uncertainty, provided that there was a corresponding level of organizational integration. They therefore posited a positive correlation between differentiation and quick response systems with systems integration as a mediating variable. This conclusion is partly at variance with our and other arguments and evidence. The reason why their differentiated firms performed well may reside in their measure of environmental uncertainty (see Tosi et al, 1973). They appear to have omitted the more problematic environmental changes by relying heavily on measures of environmental uncertainty derived from the perceptions of functional management. Similar doubt may be cast on the work of Carroll (1967) who found a positive correlation between specialization

and innovation in sixteen social welfare organizations. The technology of such organizations means that they are characterized by hard-to-measure inputs and outputs and this neglected variable could have played a vital mediating role. Indeed, Schoonhoven (1981) found that technological uncertainty did influence the effect of specialization on the level of organizational effectiveness. In her study of hospital operating room sub-units, she found a nonmonotonic relationship between technological uncertainty, professionalisation and severe morbidity. When levels of technological uncertainty were high or moderate, increases in professionalization did lead to increased effectiveness but in conditions of low technological uncertainty, increases in professionalization led to ineffective performance. Secondly, it is unclear exactly how differentiated were the tasks of the different functions studied for participants who perform different specialist tasks but in the knowledge of other specialist tasks may indeed not be highly differentiated in their tasks. Finally, these researchers only analysed programme innovation and not programme implementation, the latter task could have foundered on a high level of systems differentiation.

Our main contention, therefore, remains that differentiation S has a negative relationship with systemic response to environmental demands and hence with measures of O.E.

Integration S is the second vital dimension of the system. It refers to the quality of the state of collaboration and co-ordination that exists among different individuals and groups within the system which are required to achieve commonality of effort and purpose. That is, integration refers to the nature and quality of inter-group and interpersonal relations as well as the process by which such relations are achieved. Such integration between diverse functions or groups or sets of decisions could be brought about by the creation of joint decision-making bodies, a special integrative function that played a liaison role or the creation of rules and operating procedures that governed behaviour, plans and objectives.

This definition of integration S is wider than that of Lawrence and Lorsch in that they looked only at the level of integration between different functional groups whereas the word "group" in this context may refer to functional groups, or interest groups (as drawn in the F-set) or purely ad hoc transient groups which form for a short period of time in order to achieve a limited purpose. The concept of integration S also includes a consideration of interpersonal linkages, an aspect ignored in the Lawrence and Lorsch formulation.

Finally, the concept of integration S varies directly with the degree of conflict present in interpersonal and intergroup relationships. As March and Simon pointed out back in 1958, conflict is a term of many uses and meanings. Here the term intraorganizational conflict is used to refer to a special case of interpersonal and intergroup relationships, that is, when disequilibrium exists such that persons or groups experience difficulty in choosing an agreed action alternative. Following March and Simon (1958), it applies to a breakdown in the standard mechanisms of joint decision-making. Intraorganizational conflict, like integration S are properties of intergroup linkages and the level of conflict in such linkages is related directly to the amount of systemic integration. The higher the level of interpersonal and intergroup conflict, the lower is the level of integration S and the lower the effectiveness of the system as a whole. The system is less able to cope with demands from the environment or from competing interest groups. It cannot rally its diverse parts, forces or groups to develop coherent strategies.

In conceptualizing integration in this manner we can draw the links between research in social psychology on personal and intergroup conflict and work in general organization theory on the necessity of work co-ordination and integration in complex bureaucracies. In addition, support for this hypothesis may be drawn from both these areas of research. The work of Lawrence and Lorsch (1967), for instance, found that one hallmark of less effective organizations was the inability to devise sufficient means to

integrate and co-ordinate diverse departments. Given the level of environmental uncertainty, the more effective (defined in their terms) organization was one which possessed high levels of integration. Further they argued that different environments called for different structural approaches to integration. In the dynamic plastics industry, the more effective organization employed a formal integrating department whose function it was to ensure that the various functional areas worked toward common goals. In the moderately dynamic food packaging industry, the more effective organization used individual integrators. Finally, in the more stable containers industry, integration was facilitated in the more effective organization by direct managerial contact through the chain of command. Thus when we consider the effective organization or high performers in this study each is characterized by an ability to establish a vehicle for integration that is commensurate with its respective environment. The more complex the environment, the more elaborate the integrative mechanisms required.

The importance of systemic integration is also argued deductively by Caplow (1964), Mahoney and Weitzel (1969) and Duncan (1973). Mahoney and Weitzel (1969) found that in research and development organizations there was a positive correlation between perceived levels of co-operation and an overall measure of effectiveness. The latter measure was obtained by self-report from managers. Similarly Duncan found in a study of twenty-two decision units that the level of integration contributed positively to a measure of organizational effectiveness.

In social psychology, the dysfunctional effects of intergroup and interpersonal conflict are well documented. The seminal work of Sherif and Sherif in 1956 has led to chapters on group conflict in all standard textbooks (see Gibson et al, 1979; Handy, 1976; Cohen et al, 1980) and "recipes" given as to the means by which such conflict can be minimized, managed and channelled creatively into positive competition. The tactics of conflict have also been insightfully studied by Pettigrew (1973), Strauss et al (1963) and Crozier (1964). The control of information, the distortion of communication, the

use of rules and regulations to protect one's territory, the control of

rewards and the denigration of one's "adversaries" are common tactics used

to undermine the power and status of rival sub-groups. The persistence of

such conflict can only lead to a lowering of systemic variety as the parts

of a system concentrate on fighting themselves. A hardening of conflict

ensues as each tactic is met with other tactics, barriers of communication

promote hostility and suspicion and collaboration degenerates into wasteful

bargaining. A system ridden with conflict also has significant influences

on O.E. via individual critical psychological states. For example,

Friedlander and Marguiles (1969) found that systems high in "hindrance"

led to lower satisfaction with interpersonal relationships, task involvement

and advancement. In addition, Porter and Steers (1973) and Yolles et al

(1975) found that absenteeism was inversely related to overall job satisfaction,

opportunities for participation in decision making and increased job autonomy.

That is, that intergroup and interpersonal hostility influences O.E. (as

measured by absenteeism) via participants' felt satisfaction. Their psychological

states thus form a critical intervening variable between the effects of systemic

states and environmental characteristics on the performance of the system as

a whole. We shall build on this insight in our specification of our empirical

model.

The third vital dimension or characteristic of the system is the concept

of system supportiveness S. This characteristic is culled from literature

on the influences of "organizational climate" and "work design" on

participants' critical psychological states and measures of O.E. The climate

construct is well-studied but controversial as there is much debate about its

dimensions of measurement. Campbell and Beaty (1971), for example,

identified ten dimensions which ranged from perceptions of reward-punishment

relationship, to the level of openness, warmth and helpfulness to the amount

of decision centralization. Payne and Pheysey (1971) have also devised some

twenty-four scales which measure substantially different areas from the

Campbell and Beaty dimensions. In addition, some of these climate scales measure facets of work design, an area which has an almost separate research territorial domain. For example, one of Campbell and Beaty's scales measures the amount of job feedback, another of Payne and Pheysey's measures the amount of rule orientation. These measures are similar to some of the five core job dimensions identified by Oldham and Hackman (1981) which are skill variety, task identity, task significance, autonomy and feedback. However, the research on climate and job design has developed into two distinct lines of research, each demonstrating independently its empirical usefulness. On the one hand, studies using the "climate" construct have shown that "climate" affects not only perceptions of individual worth but also job satisfaction and performance. (Litwin and Stringer, 1968; Friedlander and Marguiles, 1969; Steers, 1976). Such findings have emerged from a wide range of samples in a variety of institutions. In particular, the magnitude of the relationship between climate and satisfaction, though not overly large (indicating that other factors are also at work) is consistently in the predicted direction. The relationship between climate and job performance, though more complex, is also highly significant. On the other hand, studies looking at the relationship between job characteristics and individual work attitudes have similarly demonstrated highly statistically significant positive relationships between Oldham and Hackman's five job dimensions and measures of general satisfaction, work motivation, growth satisfaction, mental health and job performance (Oldham and Hackman, 1981; Brass, 1981; Wall et al, 1978).

In the light of these findings and of the overlap between these two lines of research, we propose that a construct of supportiveness[S] be used to describe this "elusive" something within an organization's cultural and work milieu that creates conditions that are conducive to certain attitudes and patterns of behaviour. However weak our present measures may be, there is substantial evidence that the supportiveness of the internal work environment of a system influences O.E. Supportiveness[S] is, therefore, defined as the cultural meaning of the system and is measured by both traditional "climate"

and "job design" characteristics. Supportiveness S has two dimensions - affiliation and production-centredness - both these dimensions must be present before systemic supportiveness may be said to be high. A warm, friendly, cosy atmosphere within an organization cannot be said to be supportive for though it correlates highly with levels of job satisfaction it may not lead to high productivity. Litwin and Stringer (1968) find, for example, that authoritarian climates in which decision making was centralized and employee behaviour heavily rule-governed lead to low productivity, satisfaction, creativity and negative work group attitudes. However, an affiliation-centred climate which stressed good interpersonal employee relations though leading to high job satisfaction, positive work group attitudes and moderate creative behaviour did not lead to high job performance. Only in an achievement-oriented climate where emphasis was also on goal attainment were both creative behaviour, satisfaction, work group attitudes and productivity positive. This emphasis on "employee-centredness" and "production-centredness" is further emphasized by work on effective managerial or leadership styles (see Blake and Mouton, 1964). They derived the concept of a 9, 9 style of management in which the effective manager was said to be one who showed high concern for both employee well-being and productivity. Available research elsewhere also supports the essential supportiveness of such dualistic managerial styles and organizational climates; the outcomes of which have been empirically shown to include increased employee performance, reduced turnover, lower manufacturing costs and reduced training time (see Friedlander and Greenberg, 1971; Hand et al, 1973). It is, therefore argued that supportiveness S is high when both work production and job satisfaction amongst participants are facilitated. In effect, work production is but another form of need-satisficer and the proposition above merely restates the original argument of the F-set - that effective performance in the long-run means satisfying a feasible and diverse set of participant needs and demands.

A supportive "press" is also measured by perceived levels of skill variety, task identity, task significance, autonomy and feedback. When employees perceive high levels on these five core dimensions, then the system is also said to possess a supportive "press". As pointed out earlier there is ample empirical evidence to support this claim as numerous usage of Oldham and Hackman's five core dimensions have yielded stable results.

Our final characterisation of the system is termed systemic uncertainty or uncertainty^S. The justification for this characteristic is derived largely from the work of Galbraith (1973) and organizational literature on the contingent influence of "technology". Galbraith's work presents a mainstream analytic framework to the structural design of organizations and unlike most other contingency theorists, he was quite clear in specifying to what the system was adapting. In general, he argued that systemic structure and behaviour depended on the amount of information processed among decision makers during task execution and, secondarily, on the relative costs of various designs. Specifically, one of his basic assumptions was that the greater the uncertainty of the task, the greater the information that must be processed during task execution in order to achieve a given level of performance. He further assumed that alternative systemic structural arrangements vary in their capacities for processing information. Some are more effective than others for a given level of uncertainty. As a consequence, the specific structures adopted should depend on the amount of uncertainty present in the tasks and workflow. Thus, the degree of task uncertainty is a contingent influence on which turn alternative levels of differentiation^S, integration^S and supportiveness^S. Although we shall not be analysing in detail the interactions amongst these four characteristics of systems activity we do hypothesize statistical correlations amongst them. However, the main point here is to establish the argument and hypothesis that

the predictability of a system's task is a basic conditioning variable in the choice of strategic response to environmental demands.

A similar emphasis on intrasystemic uncertainty is reflected in the so-called "technology" literature which seeks to identify either mechanical or intellectual processes by which an organization transforms inputs or raw materials into desirable outputs. For instance, Lawrence and Lorsch's (1967) measure of technology included a measure of information uncertainty, Hage and Aiken's (1969) study of sixteen social welfare agencies measured technology as the routineness of task and both Hickson et al (1969) and Hrebiniak (1974) measured technology via the rigidity of workflow sequences and task and materials predictability. Further, their empirical results confirmed their initial hypotheses that "technological variation" or differences in levels of uncertainty S significantly influenced the dependent variables studied. Lawrence and Lorsch argued that their measure of technology showed a strong positive relationship with the level of differentiation, in our language, there is a positive interaction between differentiation S and uncertainty S. Hage and Aiken found a significant negative correlation between routine technology and participation in decision making, a positive relation between routineness and formalization and no relation between routineness and other structural variables. Hickson et al (1969) found a weak relationship between technology and structure and effectiveness, and their data seemed to suggest that size could be a mediating variable. However, this suggestion has not been backed up by subsequent research. Finally, Hrebiniak's (1974) results, though showing no clear relationship between technology and effectiveness, found that certain technological variables were related to some "structural" variables when the measure of supervisory behaviour was held constant.

One of the most recent pieces of work on technological uncertainty is that of Schoonhoven (1981) who studied seventeen operating suites and measured uncertainty as the unpredictability of operations actually carried

out. She found a significant negative relationship between the level of
uncertainty and her measure of effectiveness, measured as the rate of severe
morbidity. (In addition, she argued that uncertainty interacted with measures
of destandardization, decentralization and professionalization in affecting
the level of effectiveness).

In the light of such evidence, we therefore hypothesize that the level
of systemic uncertainty will have a negative effect on the level of organiza-
tional performance. Uncertainty is presumed to undermine organizational
effectiveness unless it is met by structural features designed to absorb the
information uncertainty. It should be emphasized that uncertainty S is defined
as the level of unpredictability within the system as it transforms "raw"
inputs into desirable outcomes, contributions into inducements. It is
distinct as a concept, from measures of environmental uncertainty. Though
there could be an empirical and conceptual relationship between these two
measures, depending on the "porousness" of the system's boundary, analytically
they describe different concepts.

We have now concluded our characterization of systemic activity states.
The diagram below summarizes the exact causal relationships specified and
the relationship between S and measures of O.E.; notations on the paths
between variables represent the positive or negative relationships expected.
The double-headed arrows represent unanalysed correlations and relationships
amongst systemic characteristics. Our main justification for not analysing
these interactions in detail is that we are more concerned with assessing
their independent, direct effects on O.E., the main topic of this section.
Secondly, as we also wish to measure environmental characteristics in a test
of Ashby's arguments in its entirety, there is a constraint on time and
effort. Thirdly, it is intended to use several measures of each of these
characeristics, a technique not often used in the past and to assess the
direct and indirect effects of each of these measures on O.E. Finally, as
argued before, the weak statements of Ashby's Law appears to offer more

opportunity for conclusive elucidation of complex relationships. Hence, though it is recognized and known (via previous empirical research) that there are interaction effects amongst systemic characteristics these will take a minor role in the present study in order to focus on the effects on organizational performance.

Systemic Characterization
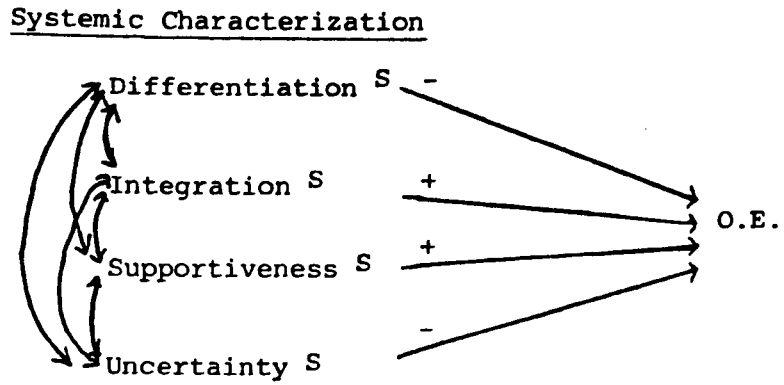
Diagram 8.8: Causal Model of O.E.

Predicted from Systemic States

In conclusion, we emphasize that these four dimensions are put forward as the most promising and critical facets of strategic response after a comprehensive review of a wide variety of literature. However, we do not claim at this early stage that these dimensions are all-encompassing and that they capture the essence of a system in a fundamental methodological sense. The status of these dimensions is tentative, subject to empirical confirmation or refutation. In short, they are not transcendental characteristics of a system.

We shall now explicate our characterization of environmental states. As pointed out earlier, the concept of E in Ashby's formulations refers to the external environment of a system, to wholes and coalitions which are less well controlled by the system. Descriptions of external environments have been consistently derived from several abstract dimensions. Empirically, these dimensions are often obtained via participant perceptions of the environment, thereby raising the interesting issue of whether "objective", "real" environments exist or whether as Weick (1979; 1974) contends they are essentially "subjective", "enacted" states. In Weick's view the environments, of themselves, represent "mythical entities". In the enactment process people "act out and realize" their ideas and thereby create their own realities (i.e. environments) which they subsequently deal with. Weick thus argues that the environment is a social phenomenon tied to processes of attention and sensemaking, which alone endow it with existence:"unless something is attended to, it does not exist" (Weick, 1976). Therefore, if men define situations as real they are real in their consequences. Weick further develops his ideas into a formal model of organizing: organizing is a process "directed toward reducing the equivocality that exists in informational inputs judged to be relevant" (Weick, 1969). This model, which is based on the socio-cultural evolution model of Donald T. Campbell (1965) and the work of phenomenologists such as Mead (1934) and Schutz (1967), in fact lies on the boundary of Burrell and Morgan's interpretative paradigm. It proposes

that there are three organizing processes: enactment of an informational environment; selection of inputs to be processed from this environment and the retention of information as a feedback function for future enactment and selection. These three processes in turn constitute a series of what Weick (1969) calls "assembly rules" and "interlocked behaviour cycles".

Though Weick's emphasis on the subjective enactment of environmental states is useful, his assumption that this theory of bounded human rationality is total is mistaken. For it obscures the material reality of a system's environment which consists of laws, institutions, norms and coalitions that partially determine systemic behaviour. Whilst Child's (1972b) critique of environmental determinism is taken to heart, Weick appears to have plunged to the other extreme, where the environment loses all determination and nothing more than the ideational environment exists. For Weick at least, the notion of macro-structures is reduced to a myth, entirely dependent on the subjective interpretations of participants. If coalitional participants perceive such structures to exist, they do, if not they do not. Surely such an ontological commitment to the rule of participant perception is dangerous and invalid. As Bacharach and Lawler (1980) argue, without an independent object or source of information, it would be impossible to discriminate between that information that is sought but not received, that which is received but not sought and that which is possible rather than impossible to obtain. In addition, Weick's reasoning appears circular. The number of assembly rules activated is a function of the amount of equivocality in the informational inputs. These are enacted so that equivocality is a function of their enactment, which is a function of the assembly rules used to do enactment. However, we have already defined the number of assembly rules in terms of the amount of equivocality! Nor are the formulae "number of assembly rules" or "assessment of equivocality" particularly clear. Are any ten assembly rules equivalent to any other ten? Could not ten simple assembly rules be condensed into five in another organization?

The questions multiply - and Weick's originally promising model of organizing seems to lead only to empty formalism or to a content which cannot be meaningfully compared. We argue that the environment is more usefully conceived as an objective influence on systemic actions. Though subjective enactment is a vital and fascinating problematic area of study, nevertheless, a materialist ontology appears to be more satisfactory at a conceptual level. At this level, there are two distinct but related materialistic perspectives on the nature of a system's environment. As Lowe and Oliga (1981) point out, there is the resource flows perspective which view environments as a stock of resources for which organizations co-operate or compete and the information flow perspective which treats environments as a pool of information which is filtered through actors' perceptions for the purpose of, or in the course of coping with, uncertainty in the decision situation.

In the resource flow conceptualization of environments, resources have been defined as generalized means, or facilities, that are potentially controllable by social organizations and that are potentially usable - however indirectly - in relationships between the organization and its environment. (Yuchtman and Seashore, 1967). Thus resources include, at a general level, "human activity, . . . power, influence, reputation, money and knowledge". (Aldrich, 1979). But we would add that human values form an important component of the resource pool since issues of legitimacy and conflict significantly influence one's capacity for resource acquisition or disposal. There are two major variants of the resource perspective. The first treats resources as evenly dispersed within the environment. In this category are included the ecological models such as the "natural selection models" (Campbell, 1969) of which the "population ecology model" is a special application of the selective propagation of organizational populations (Aldrich, 1979; Hannan and Freeman, 1977). The population ecology model focuses not on an individual organization but on organizational populations; the environment is now defined as a niche which consists of a distinct

combination of resources and other constraints capable of supporting the population. The condition for continued systems viability is relative superiority in the degree of fitness of the population to its environment. But the regulatory process is framed in terms of environmental variation, selection and retention; it is the environment that "selects" optimal organizational forms and which determines the survival of the "fittest". Indeed, the population ecology model is a gross statement of environmental determinism and in Ashby's terms represents a case where the system has effectively "fallen asleep" and the environment is both the main source of disturbance and the regulator. As _Soo, Oliga and Puxty (1980) have shown, such a model begs more questions than it answers, failing as it does to adequately explain differential physical survival rates of organizations and missing out entirely on the richness of subjective enactment processes.

A second variant of the resource perspective of environments is represented by resource dependence models which are based on the assumption that resources are concentrated in the hands of a few elements or actors such that the resulting asymmetry in power leads to dependence-avoidance or dominance-seeking strategies in a situation of inter-organizational   dependence. (Blau, 1964; Emerson, 1962). The distribution of resources among competing demands then takes on a political nature (Pfeffer and Salancik, 1978). Whereas in the population ecology model the resource view of environments was that of differentiated niches, in the resource dependence model, the environment is depicted as a differential power distribution.

In the information flow perspective, environmental variety is conceived in terms of uncertainty and its impact on actors' decision-making ability. However, the same environment is the source of information that becomes the raw materials acted upon by sentient actors in their attempt to cope with uncertainty in the decision situation. The process of regulation thus becomes acquiring requisite information to absorb proliferating uncertainty. (Ashby, 1956; Beer, 1972). Uncertainty is seen to arise from two main causes: the low degree of constraint in the relationships between environmental

elements (i.e. complexity and unpredictability in the environment) and the

equivocality of the information flowing to the decision-makers (i.e.

ambiguity and unreliability of information sources). Indeed, the most

common dimensions used to describe environments e.g. instability and hetero-

geneity stem from this perspective of environmental uncertainty. Within this

perspective of environments, the condition for system viability is a matching

of the information capacity of the system with the degree of environmental

uncertainty. As can be seen, Ashby's original Law of Requisite Variety falls

within this information flow perspective, its emphasis being on the quantitative

rather than the qualitative aspects of information and uncertainty. As such,

it suffers from a neglect of the resource flow perspective of environments.

Just as the resource flow perspective takes information flow as non-problematic,

so the information flow perspective takes the resource flow as non-problematic.

The partial view of social reality inherent in each approach is obvious.

We therefore intend to extend Ashby's conceptualization of the system's

environment in such a way as to synthesize both the resource-flow and

information-flow perspective in a materialist ontological theory about

systemic environments which simultaneously accommodates the possibility of

participant enactment of a system's environment. Much of the work that

follows is in fact part of an ongoing research project at Sheffield which

will be reported in greater detail in the future. Here, we describe only

those facets of the research relevant to a characterization of environmental

states.

It is argued that, in the light of present findings, the system's

environment be characterized via the use of these succinct dimensions which

encompass insights from the resource and information-flow perspectives. These

three dimensions are complexity ^{E}, illiberality ^{E} and variability ^{E}. The

subscript E indicates that these characteristics are descriptions of the

environment. Following Lowe and Oliga (1981), complexity ^{E} is defined as

the causal and relational meaning of the environment; illiberality as the

value meaning and <u>variability</u> as the changes in complexity and illiberality through time. We conceive complexity and illiberality as the static perspectives of environmental variety but that the dialectical relationship between them (caused by the inherent contradiction between the human need to counter illiberality and the movement towards greater complexity that is entailed) generates relentless pressures for change. Diagram 8.9 illustrates these dialectics, showing that the interaction between complexity and illiberality generates through time a continuous movement or variability, which in turn feeds back to "restructure" the relationship between complexity and illiberality. It is variability that provides the dynamic perspective of environmental change.
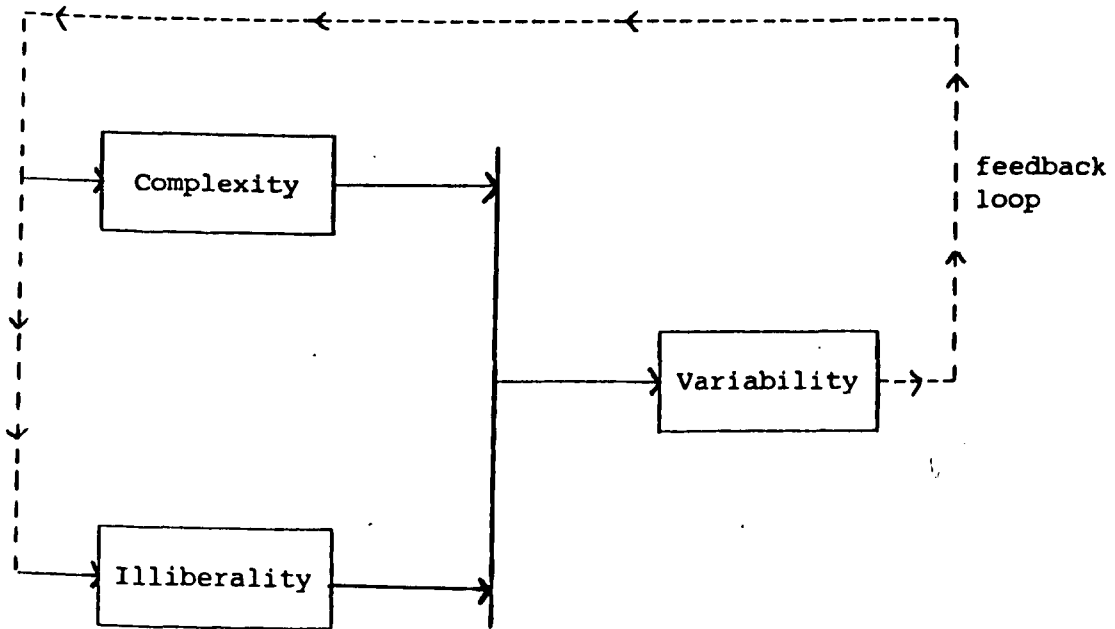
Diagram 8.9: Environmental Characteristics: The Dialectics of Complexity, Illiberality and Variability (adapted from Lowe and Oliga, 1981)

Based on previous research in this area, as well as on-going research, we posit the following relations:

(a) Complexity E is a function of and measured by:

(i) the number of distinct elements in the environment;

(ii) the degree of heterogeneity among the elements, and

(iii) the degree of linkage (or interdependency) among the elements or environmental "turbulence" in Aldrich's classification.

(b) Illiberality E is a function of and measured by:

(i) the degree of resource scarcity or environment "capacity";

(ii) the pattern of resource distribution or "concentration-dispersion", and

(iii) the value system or domain consensus-dissensus.

(c) Variability E is a function of and measured by:

(i) the nature (i.e. qualitative aspects) of change, in terms of the degree of permanence (e.g., reversible or irreversible change), and

(ii) the pattern (i.e. the quantitative aspects) of change, which in turn depends on the size, the direction (i.e. increase/decrease), the trend (i.e. linear, curvilinear or cyclical), the frequency and the rate of change.

The links between a resource-flow perspective and an information-flow perspective are achieved by conceptualizing information and values as resources which a system requires in order to achieve a feasible point in the F-set in the long-run. The incorporation of information as a resource also serves to synthesize the objective nature of a system's environment and the problematic interpretation and perception of it via participants. It is vital that these two perspectives are synthesised because each on its own fails to encompass social reality. One presupposes that "objectivistic" knowledge is possible (i.e. that the problems of human perception and values can be assumed away in dealing with reality). The other assumes that the nature and the

distribution of resources is non-problematic, so long as requisite information can be obtained. It is important to note the distinction between the proposition that the environment is an independent, objective influence on organizational performance and the argument that objectivistic knowledge of an environment may not be possible. The former assumes an ontological position that states that a system's environment is independent of participant's perceptions. Nonetheless, it is acknowledged that unfiltered and uninterpreted knowledge of this environment is impossible and that systemic action is determined by the type of "perceived environmental state". That is, though a system's environment has an objective, material existence, knowledge of it is necessarily filtered and reconstructed.

It is further hypothesized that complexity ^{E}, illiberality ^{E} and variability ^{E} are negatively related to the achievement of a viable F-set. Unless the system adopts an appropriate response, then it is hypothesized that higher levels of complexity ^{E}, illiberality ^{E} and variability ^{E} will reduce the level of effective performance. The strength of this hypothesis is again derived from cybernectics. As Ashby's pay-off matrix shows, environmental variety if left unchecked will dominate the variety of the outcomes such that the probability of an undesirable outcome occurring (or a non-feasible strategy being chosen) will increase. Since environmental variety is defined as the number of distinguishable states perceived by an observer, it is entirely reasonable to argue that higher levels of complexity ^{E}, illiberality ^{E} and variability ^{E} are in fact identical to higher levels of environmental variety because the number of states which an environment may adapt increases. The environment in essence becomes more hostile and unpredictable and this places a demand on the system to increase its variety in order to be viable.

However, it should be emphasized that these environmental dimensions in no way prejudge the system-environment determinism debate. They do not infer that the environment is all-powerful or that the system is all-important. Instead, the system-environment relationship is a dialectical whole, the

environment has no meaning or existence without the notion of a system and vice versa. Indeed, this argument about relative dominance in system-environment relationships is in part a false controversy for it implies a forced separation of the system from its environment. As argued earlier, the closure of a system is arbitrary and certainly does not mean the isolation of a system within an "adiabatic shell". The environment, is in an important sense, <u>in</u> the system and vice versa. Each reflects the dimensions of the other, each supports the other. Hence, theories of organization which focus on the relative dominance of one part-whole over the other are often irrelevant and often degenerate into interminable debates about the wrong questions. Diagram 8.10 summarizes the argument to date about the influence of environmental dimensions on the level of O.E. The notations on the paths signifiy the negative relatonships expected. The double-headed arrows again show that there are interaction effects amongst these dimensions. As before, these interaction effects will be noted but emphasis will be concentrated instead on the direct and indirect effects of complexity ^{E}, illiberality ^{E} and variability ^{E} on O.E.

When diagrams 8.9 and 8.10 are put together we have a clear empirical model that restates Ashby's Law in a weak form. This model is shown in Diagram 8.11.

Complexity ^{E} $-$

Illiberality ^{E} $-$ O.E.

Variability ^{E} $-$
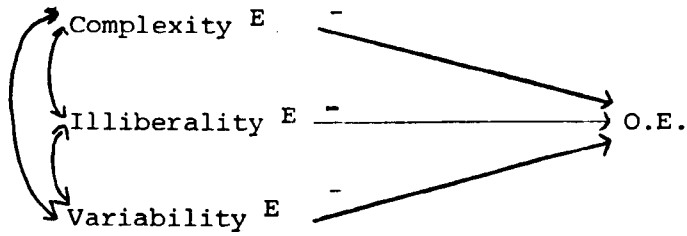
Diagram 8.10: **Causal Model of O.E.**

Predicted from Environmental States

Environmental Characterization

Complexity ^{E} $-$

Illiberality ^{E} $-$

Variability ^{E} $-$

Systemic Characterization

Differentiation ^{S} $-$

Integration ^{S} $+$

Supportiveness ^{S} $+$

Uncertainty ^{S} $-$
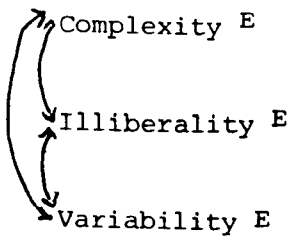
O.E. defined as achieving a point in the F-set in the long-run
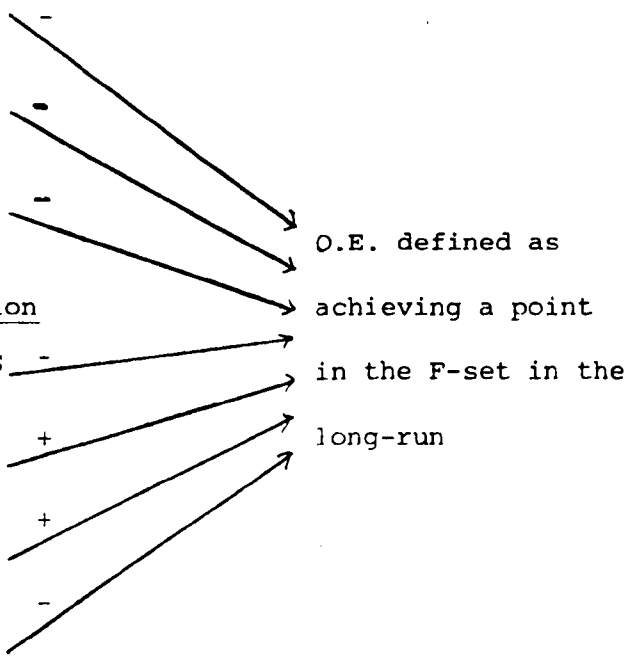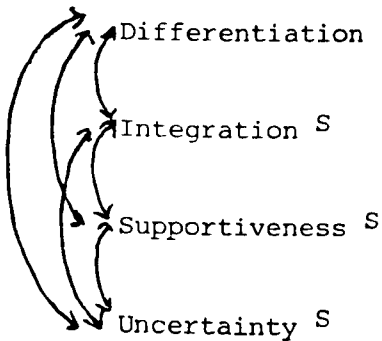
Diagram 8.11: Causal Model of the Determinants of O.E.

8.4.5 Intervening Variables in the Determination of O.E.

Diagram 8.11, however, is not a full explication of critical determinants of O.E. As the literature discussion of systemic characterization revealed, there are vital intervening variables which mediate and compound the effects of the system and its environment on O.E. Two of these sets of intervening variables will be discussed and incorporated in the empirical model. These two sets of intervening variables are individual characteristics and what Hackman and Oldham (1975) have termed "critical psychological states."

The "micro" organizational literature has long ago (see March and Simon, 1958) recognised that participant characteristics often influence perceptions of systemic and environmental states and effective organizational behaviour. The review of "organizational climate" by Payne and Pugh (1976) showed clearly that the individual's own needs, goals and interests influence the perception of supportiveness S and that the level of supportiveness S in turn affects these same goals and behaviours. In an early study, George and Bishop (1971) used Cattell's sixteen PF to measure personality, Halpin and Croft's (1963) OCDG to measure organizational climate and Hall's bureaucracy scales to measure perceived organizational structure. They hypothesized that, "the type of organizational climate perceived is directly related to the degree of compatibility found between the organizational structural characteristics and the individual personality traits of its members." The authors demonstrated the expected relationships between the three sets of variables; schools with particular kinds of structures and climates were associated with teachers with particular personality traits. However, since all the measures used were perceptual, it is equally likely that their results showed that an individual's personality would affect his perception of both "climate" and "structure" and thus, the relationship between them. Schneider and Hall (1973) have demonstrated some clearer results. They conducted a study among parish priests and studied a self-perceived work climate

which focused on the job itself and its immediate environment. This was
then correlated with a semantic differential scale of self-image; the
scale produced three factors - supportive, intellectual and involved.
The correlations, though weak were significant and demonstrated that
priests who perceived themselves as supportive, intellectual and involved
reported that they had meaningful work and felt accepted by others.

Not only do these traits and personality types influence perceptions
of systemic states, they also influence directly measures of O.E. For
example, research has shown that managerial success is closely related to
the level of one's intellectual capabilities (for example, verbal com-
prehension, inductive reasoning, memory). A series of studies over the
past twenty-five years has also focused on the "need for achievement" as it
relates to job performance. This need has been consistently found to be
highly related to individual job performance among a variety of employees
(McClelland et al, 1953; Steers, 1975). Moreover, in a review of research
on employee withdrawal from organizations discussed in Porters & Steers
(1973), it was found that individuals manifesting certain personality traits
in extremely high or low quantities tended to leave organizations far more
often than did employees with more moderate trait levels. This has been
empirically supported in the U.K. in Birch's (1975, 1978) study of voluntary
leaving amongst learner nurses. He found that nurses who scored high levels
of anxiety and conflict on Rotter's Incomplete Sentences Test and Cattell's
16 PF tended to withdraw from training within the first eighteen months.
In a less well-designed study Lewis and Cooper (1975) have also demonstrated
that nurses who have remained in service for long periods have significantly
different personality profiles from learners and leavers, the implication
being that personality is an intervening variable in participant leaving
behaviour. Lastly, it was also found that employees whose vocational

interests were not congruent with the realities of the job left more frequently - and were poorer performers while they remained - than those whose vocational interests were congruent with the job (Holland, 1976). This concept of congruency or a match between participant needs, abilities and personalities with job and organizational requirements has long formed the basis of recruitment and selection tests. Andrews' (1967) work is often quoted as a clear example of this principle. He reported a field study of two Mexican firms which had very different value orientations, organizational cultures or what Ouchi (1980) called clan control. One was highly "achievement-oriented", economically effective, ready to change, and progressive; and the other was power-oriented and generally less successful economically. Andrews gave the Thermatic Apperception Test (TAT) to top level managers in the two firms to measure their need for achievement (N Ach) and need for power (N Pow.). He also used the number of promotions and salary increases during the preceding four-year period to measure performance. There were no differences in motivational measures between the two organisations; however, the managers who had progressed most in each firm were those whose personal needs were most congruent with the values of the organization.

Intuitively valid though this thesis is, studies which have calculated "discrepancy scores" between self and internal environment (see Pervin, 1967; Stern, 1970) have produced disappointing results. Though supporting in general, the hypothesis that individual-internal environment (supportiveness[s]) compatibility enhances behaviour and attitude, the percentage of variance explained in dependent variables has not been large, and has not been significantly greater than that explained by zero-order correlations between personality or ability measures and performance. It is felt that this is mainly due to the use of discrepancy scores. Relating; such scores

to other variables has created the problem of linking variance to the variance of the personality variable, the environmental variable, or some interaction of the two. Accordingly, Wall and Payne (1973) emphasized that discrepancy scores can be misleading and suggested the use of raw scores and part or partial correlations to explore relationships and inter-actions. This suggestion is in fact taken up later in our empirical model.

In addition, to these characteristics of needs, traits, interests and abilities other characteristics have also played a part in influencing participant leaving and staying behaviour. Tenure, for example, has long been used as a predictor of withdrawal. As Schmittlein & Morrison (1981) explain, the longer a person has been on a particular job or within a specific role, he or she is less likely to leave. The problem of occu-pational inertia is partially explained by revised job and role expectations, the costs of leaving (the ease of movement and the desirability of movement) and the consequences of learning on the job. In addition to personal characteristics such as age, tenure and qualifications, the concepts of "met expectations" and "perceived alternative opportunities" are often considered important explanations for participant attachment and withdrawal from a coalition. (see Porter & Steers 1973; Pfeffer, 1978; March & Simon, 1958) Central to the model is the notion that each participant brings his or her own unique set of expectation to a job and organization. For some individuals, it is likely that a high value would be placed on attaining their expectations in the areas of salary, promotional opportunities and so forth. Further, emergent expectations could develop due to a social comparison or referencing process whereby expectations are created or changed depending on the experience of others (a clear example of what economists call interdependent utility functions). This set of expectations or demands then needs to be met by coalitional inducements. As March & Simon so clearly argued, if the inducement-contribution balance is unsatisfactory,

and there are alternative employment opportunities employees will leave the coalition.

The second set of intervening variables has already been partly discussed within the discussion of March and Simon's work. It refers to critical psychological states felt by participants, often called individual work attitudes and even individual outcomes. Though these psychological states do give some indication of participant staying and leaving behaviour, they are nevertheless not measures of O.E. As argued previously, expressed levels of participant satisfaction or well-being are not identical to actual participant behaviour. In addition, expressions of satisfaction by one participant group, say employees, may not equate the level of satisfaction of other participant groups and certainly do not describe the "health" of the whole. Further, even if an observer were to tabulate the satisfaction level of each critical participant group, the sum of parts may not necessarily be identical to holistic measures of O.E. such as measures of systems adaptive capacity.

These statements expose our beliefs in the essential complex process of "rational" behaviour and in the synergistic effects of holistic part-whole interactions. Empirical research has always had to cope with observed "inconsistencies" between what "people say and what they do", with so-called "irrational" forms of human behaviour. As pointed out in our earlier discussions, our theories of rationality and of rational human behaviour are very inadequate; as yet, they do not satisfactorily explain the difference between verbal expressions of beliefs and observed behaviour. Simon's (1976) concept of bounded rationality, March and Olsen's (1976) description of "organizations running backwards" and the phenomenological alternative of a retrospective imputation of meaning to events are some of the issues now being raised within our discussion of rational behaviour. In addition, Puxty and Chua (1981) have argued , within the context of control, that questions about "irrational behaviour" are really questions about

different knowledge interests and epistemological focus. Given our state of knowledge about notions of rationality, we have decided to concentrate on participant behaviour as measures of O.E. and to use expressions of well-being as intervening variables. Finally, this position is more tenable given the basic tenet of holism in general systems theory, viz, a summation of parts can never capture the essence and identity of the whole. That is, expressions of satisfaction by participant groups are not identical to measures of viability of the whole.

The work of organization theorists again lends some support to these epistemological conclusions. In a comprehensive review Cummings and Schwab (1973) pointed out that the relationship between expressed job satisfaction and job performance is highly problematic and not necessarily symmetrical. The research quoted earlier by Litwin and Stringer (1968) also showed that in an affiliative climate employees expressed high job satisfaction and had positive attitudes towards their work group but performance remained low. Only when an emphasis was placed on job performance was there high productivity and high levels of job satisfaction. In other words, satisfaction of the needs of one participant group did not produce satisfactory inducements (in the form of output) to other participant groups.

Having established the argument for treating participants' psychological states as intervening variables, what then are some of these critical psychological states? The most commonly studied are measures of satisfaction, organizational and professional commitment/identification and measures of individual conflict such as role ambiguity and role conflict. The notion of expressed participant satisfaction measures an individual's affective response to his coalitional participation. It is usually measured in terms of job satisfaction and/or satisfaction with the organization as a whole. Conceptually this concept of satisfaction is different from our measure of supportiveness S - the former is an affective feeling about coalitional participation whilst the latter is, conceptually, a description of a systemic

state. Though it is obvious that one's feelings influence one's perceptions

and we can never achieve a "pure" description, nevertheless our separation

of the two concepts is defensible at the theoretical level. At the empirical

level, we can tackle the problem by asking two separate questions:

(1) how do you perceive the system and how much supportiveness S do you

think it shows?; and

(2) are you satisfied with this state of affairs?

It is expected that participant satisfaction is related to systemic and

environmental characteristics and O.E. in the manner shown in Diagram 8.12.

Increases in complexity E, illiberality E and variability E are hypothesized

to lead to lower levels of participant satisfaction if the system does not

counter these increases with appropriate strategies. This is because the

system as a whole is unable to cope with environmental demands and this is

reflected in dissatisfaction with the inducement contribution balance. A

scarcity of resources in particular means that the system is unable to satisfy

the demands of participants. March and Simon (1958), for example, state that

"When resources are relatively unlimited, organizations need not
resolve the relative merits of subgroup claims. Thus these claims
and the rationalizations for them tend not to be challenged;
substantial differentiation of goals occur within the organization.
When resources are restricted and this slack is taken up, the
relations among individual members and subgroups in the organization
become more nearly a strictly competitive game." (p. 126, March and Simon, 1958.)

Such competition, if conducted as a zero-sum game can lead easily to low

morale and dissatisfaction with participation. The work of Baumol (1959)

Williamson (1964) and Cyert and March (1963) all emphasize the generation of

revenue and slack to reduce internal tension. Cyert and March (1963) argue

that in a benign environment organizations tolerate and support a multiplicity

of partially conflicting goals. Scarcity of resources, arising from a

diminuition in environmental liberality results in search directed at a

reduction in organizational slack (e.g. cost cutting exercises):

"Organizational slack absorbs a substantial proportion of potential
variability in the firm's environment. As a result it plays both
a stability and an adaptive role." (p. 38, Cyert and March, 1963.)

Similar arguments appertain to the effects of increased levels of differentiation S and uncertainty. S An Increased polarization of subgroup interests and sub-goal differentiation and increased uncertainty in the transformation process of contributions and inducements will lead to less satisfaction with organizational membership. On the other hand increased levels of integration S and supportiveness S are hypothesized to lead to higher levels of participant satisfaction as the system is "better organized" to act as a transformer of inducements and contribution. The reader is referred to the earlier literature discussion on characteristics of S and E for further evidence. The exact effect of personal characteristics is left unspecified in this general model of O.E., these will be specified in a later chapter when a detailed empirical model is set out. Finally, participant satisfaction is expected to have a positive relationship with measures of O.E. at both the individual and holistic levels of analysis. This is because the higher the level of expressed satisfaction with participation and production, the less the perceived desirability of movement and the greater the probability that the organization is remaining and will remain in the F-set in the long-run. (See March and Simon, 1958).

Diagram 8.12 is also hypothesized to be relevant when we analyse the relationship of organizational commitment to S, E and O.E. The concept of commitment has recently received wide attention as an explanatory linkage between O.E. and systemic responses. (See Staw, 1977; Steers, 1977; Stevens et al, 1978). However, because of its wide usage it has been defined in a variety of ways. The term "commitment" has been used, for example, to describe such diverse phenomena as the willingness of social actors to give their energy and loyalty to social systems, the "bending" of an individual to particular acts or to an affective attachment to an organization apart from a purely instrumental relationship. In our formulation we define participant commitment as reflecting (a) a strong belief in and acceptance of the values and purpose of the micro-organization, (b) a willingness to
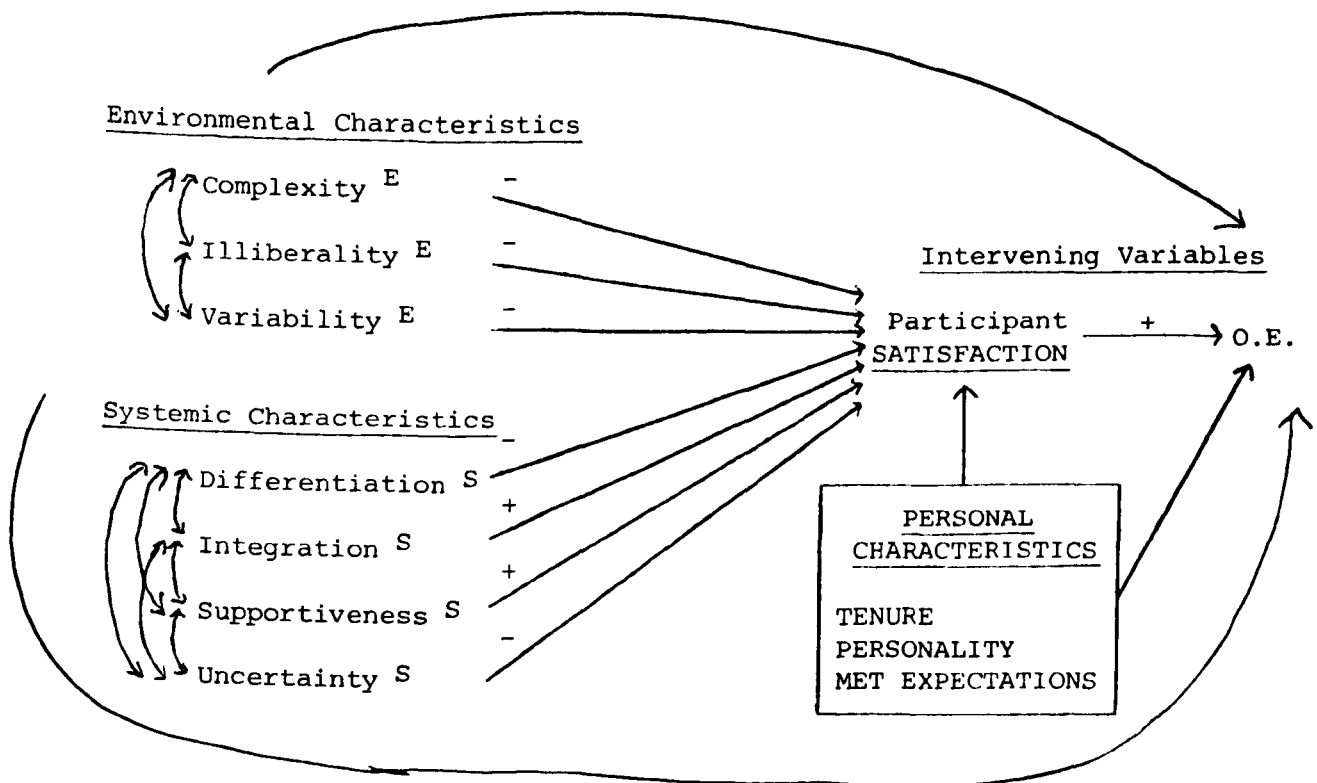
Diagram 8.12: Causal Model of O.E. with Participant Satisfaction

as an Intervening Variable

exert considerable effort on behalf of the organization and (c) a definite desire to maintain organizational membership. (See Porter et al, 1974). It is expected that increased environmental variety (across the three dimensions), systemic differentiation ^{S} and uncertainty ^{S} will lead to lower morale and commitment. Again, it is argued that this result is due to the system being unable to cope with environmental states and changes in those states in such a way as to transform contributions into satisfactory inducements. Dissatisfaction then leads to lower participant attachment and commitment, he/she is no longer willing to expend time and energy within the system. By contrast, higher levels of supportiveness ^{S} and integration ^{S} will lead to higher levels of commitment as participants become more exposed to common value orientations and have less room for "deviations from the mean". Finally, it is predicted that higher levels of commitment will lead to higher levels of effectiveness. Highly committed members will be willing to exert considerable effort on behalf of the organization in both acts of production and participation. In addition, in keeping with the view that committed employees will engage in spontaneous, innovative behaviour on behalf of the organization, it is anticipated that, within limits, organizational commitment among members would facilitate the ability of an organization to adapt to contingencies. As Angle and Perry (1981) point out, the adaptive capacity-commitment relationship would not actually be expected to be monotonic over all possible levels of commitment. Extreme commitment would probably lead to fanatical behaviour, suspension of individual judgement and the like. However, the relationship here is presumed to be positive and monotonic over the range of values actually encountered.

Essentially similar arguments are advanced as to the effects of perceived role conflict. Role conflict exists when an individual is confronted with two aspects of incompatible work demands or role demands. For example, a learner nurse is both a "nurse" with consequent behavioural role sets and a "learner" within a School of nursing. These two roles often conflict as

one denotes an ability to carry out responsible tasks on ill persons whilst the other denotes a lack of knowledge and experience. Role ambiguity, on the other hand, is brought about when individuals are not provided with sufficient information concerning the nature of required tasks. For example, a learner nurse who finds herself being allowed to perform certain tasks on one ward but not allowed to perform these same tasks on another ward will experience role ambiguity as he/she is no longer certain of the province of her role or job.

It is hypothesized that such conflict and ambiguity will increase when there is an increase in complexity E as the individual and the system has to cope with more environmental elements; an increase in illiberality E as one individual may be required to take on a number of different incompatible roles, an increase in variability E due to combined increases in complexity E and illiberality E; an increase in differentiation S as divided loyalties between subgroup and organization results (as, for example, in controversy over professional versus organizational demands) and an increase in uncertainty S as increases in role ambiguity feed into increases in role conflict. As noted by Kahn et al (1964) role ambiguity is brought about by three factors:
(1) rapid organizational (and we would add environmental change or variability E
(2) increased organizational (differentiation S and uncertainty S) complexity and (3) managerial policies that lead to poor communications. Such breakdowns in communication are due directly to increasing complex and illiberal environments which lead to sub-groups entrenching themselves in intra-organiza tional niches and competing fiercely for scarce resources. Increases in integration S and supportiveness S are, however, hypothesized to decrease role conflict and ambiguity as an individual's work is better co-ordinated with that of others and he becomes less prone to conflicting roles. Further, an increased supportiveness S of work design and cultural press also means that there is increased job feedback and hence less ambiguity. Finally, both role conflict and ambiguity are hypothesized to lead to lower levels of effective performance. Support for this proposition is widespread, as can

be evidenced by almost any issue of the Administrative Science Quarterly. Toffler (1981), for example, found that absolute measures of role conflict and ambiguity correlated negatively with measures of job satisfaction; the relationship held when the sample was questionnaired at a different time period. Moorhead (1981) also found that these two intervening variables correlated negatively at the 99% significance level and 99.9% significance level with feelings about job performance (used as a surrogate for a measure of individual performance). Early studies by Kahn et al (1964) further found that prolonged periods of role ambiguity led to feelings of futility, poor job performance, increased anxiety and general job dissatisfaction; such feelings often leading ultimately to withdrawal from organizational activities, psychologically if not physically.

We have almost come to a conclusion of our empirical model. In order to summarize expected relationships, diagram 8.13 is drawn below. The reader will no doubt have noticed in our discussion of participant satisfaction, commitment, role ambiguity and conflict that these variables are intimately related to one another. Increases in ambiguity and conflict often lead to lower levels of satisfaction and commitment and higher levels of satisfaction are also empirically associated with high levels of commitment. We have explicitly incorporated these interaction effects and these are shown by the series of double-headed arrows amongst these variables. We have also specified the direct effects of environmental and systemic states on levels of O.E. by specifying a series of numeric signs in strict order on the paths between S and O.E. and E and O.E. These should be read according to the order of the characteristics of S and E.
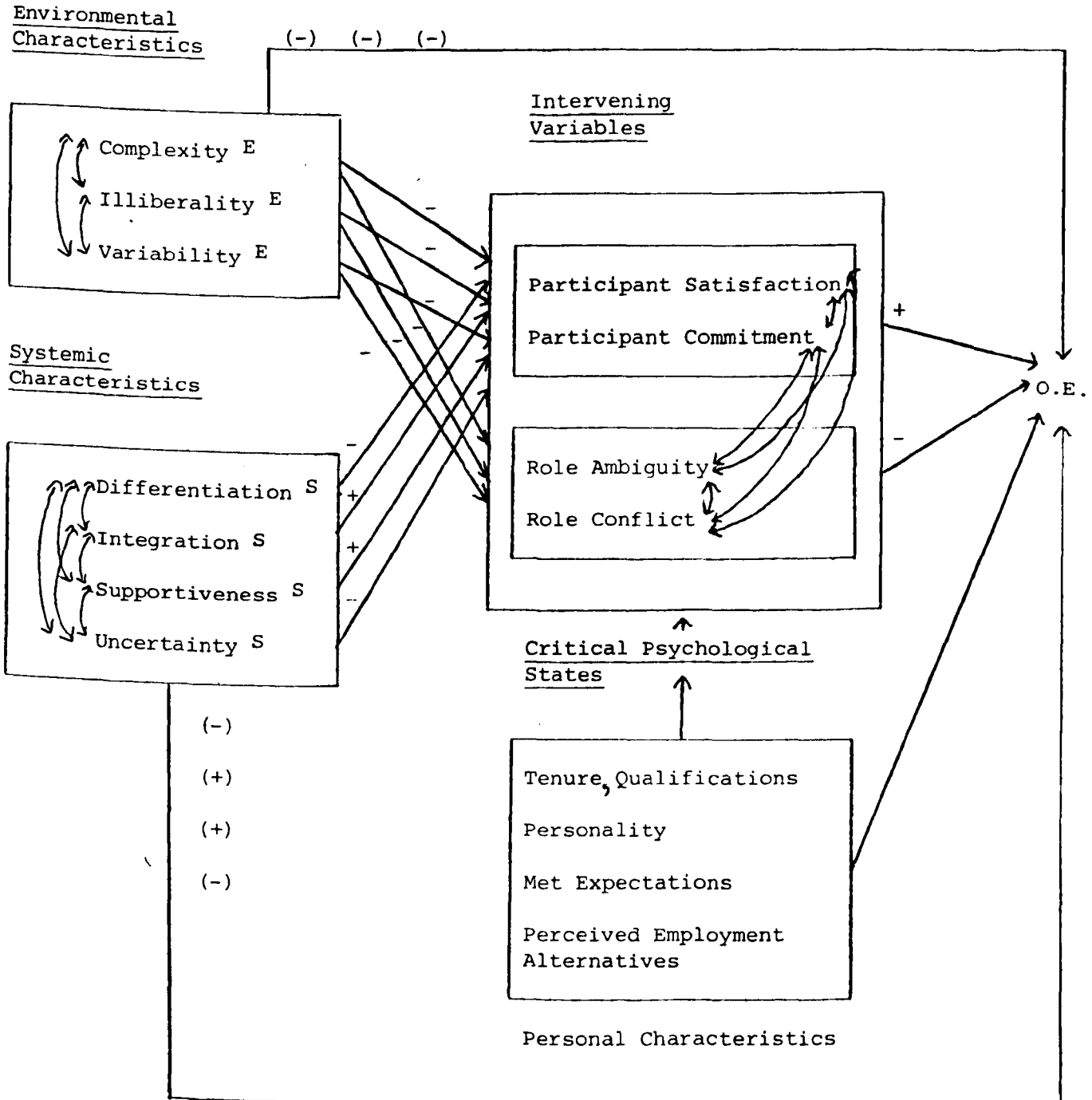
Diagram 8.13: Causal Model of the Determinants of O.E.
with Intervening Variables.

8.4.6 <u>Power as a Determinant and Outcome of the structure and processes of O.E.</u>

Diagram 8.13 is only described as a near-complete model of the determinants of O.E. because it is drawn within a background of and is constrained by a given set of micro-political and macro-societal power relationships. We have now come full circle with the topic that first orchestrated our criticisms of Tinker's CF-set and with cybernetic theory in general. The concept of power. As was pointed out at the beginning of this chapter, the CF-set did not analyse the decision processes and mechanics by which a particular mix of feasible inducements and contributions was chosen. Neither did the ideas elucidate the influence which macro-societal forces have on the content of the F-set nor on the relationships between macro- and micro-power relationships and its consequent effect on the definition of "needs" and effective organizational performance. These omissions were due partly to Ashby's neat examples of biological systems and his rather simplistic notions of survival with essentially unchanging critical variables.

In this section we intend to supplement and enrich the work of Tinker and Ashby by setting our empirical model within a model of intricate micro- and macro-power relationships and to show how the concept of O.E. and its exact specification is greatly influenced by those continually changing structures and processes.

To begin, let us explain our separation of "macro" and "micro" power relationships. This differentiation is identical to our separation of the system and its environment. As pointed out earlier, this division should be seen as a theoretical, conceptual exercise and the boundary of a system viewed as a fluid, porous penumbra through which there is a continuous exchange of energy and resources. Thus at times it may be difficult to differentiate a firm boundary. Given this caveat, we define micro-power relationships as appertaining to powerrelationships between and amongst participant groups within the focal F-set and macro-societal relationships as referring to power structures amongst interest groups in the larger

substantial environment of the F-set; the latter including inter-organizational linkages of the type described by Perrow (1979) and Evan (1976). For a detailed discussion of the meaning of "substantial environment" and its difference from "general environment" the reader is referred to Lowe and McInnes (1971). Essentially the substantial environment of a system contains elements and coalitions which are less controllable by the system but which nevertheless significantly influence its activities. The general environment contains elements which have less influence on the structure and behaviour of the focal F-set.

Next, we look at the concept of power per se. As Pettigrew (1973) notes, "there are as many different definitions of the concepts of authority and power as there are of the concept of role." Indeed, it is precisely this controversy over its conceptual elaboration and operational definition that has prevented few empirical studies of the antecedents and consequences of power. This thesis is not the place to effect yet another survey of these definitions, for a comprehensive discussion, the reader is referred to Wrong (1968; 1979) and Lehman (1969). However, a number of important theoretical distinctions must be made in order that we proceed on a sound footing.

Most conceptions of power are based on Weber's (1947) classic definition that power is the probability that a person can carry out his or her own will despite resistance. Nearly all the theorists who have written about power would express agreement with this broad definition; yet there are vital differences to be drawn amongst these different perspectives. For Talcott Parsons, for example, authority refers to the legitimate position of an individual or group: "Authority is essentially the institutional code within which the use of power as medium is organized and legitimized." (p. 319, Parsons 1967.) Authority is then, for Parsons, a basis of power, in fact the only basis of power, rather than a kind of power. The use of power is restricted entirely to the achievement of collective goals:

> "Power rests on the consensual solidarity of a system . . . in this
> sense it is the capacity of a unit in the social system, collective

or individual, to establish or activate commitments to performance that contributes to, or is in the interest of, attainment of the goals of the collectivity." (p. 504, Parsons, 1967)

Giddens (1968) rightly questions this collectivistic orientation to power for

"by treating power as reasonably (by definition) legitimate, and thus starting from the assumption of consensus of some kind between power-holders and those subordinate to them, Parsons virtually ignores . . . the necessarily hierarchical character of power, and the divisions of interest which are frequently consequent upon it." (p. 264, Giddens, 1968.)

Clearly, positions of power offer to their encumbents definite privileges and rewards which thereby stimulate conflicts between those who want power and those who have it. This brings into play a multiplicity of possible strategies of coercion, deceit, manipulation and non-action which can be used either to acquire or to hold on to power. As Giddens (1968) states "(a)ny sociological (or social) theory which treats such phenomenon as 'incidential', or as 'secondary and derived', and not as structurally intrinsic to power differentials, is blatantly inadequate." (p. 264, Giddens, 1968.)

The extent of consensus between those with legitimated power (authority) and those subordinate to them is a major variable in our empirical model. The formal structure of power and authority is regarded as problematic. This issue has been expressed in the literature in a number of ways. Barnard (1938) talks of the authority of position and the authority of leadership whilst Peabody (1964) distinguishes between formal and functional authority. Both these authors imply that authority requires to be fortified in interaction. A position may give a leader authority, but the exercise of authority requires interaction - a relationship. A supervisor's ability to exercise authority depends on the willingness of his subordinates to obey him. Thus, the superior not only controls but is in turn controlled to some extent. Though overstating the case, Crozier (1964) compares subordinates to "free agents who can discuss their own problems and bargain about them, who not only submit to a power but also participate in that structure." An important accounting example of such subordinate control is revealed in the work of Lowe and Shaw (1968) who revealed the ability of subordinate managers to bias budget forecasts. Though superior managers suspected those sales budget forecasts to

be inaccurate and tried to counterbias them, they were not often successful and these forecasts were usually accepted in a decision making situation. Such acceptance can occur for several reasons. First, the collection of information about alternatives takes time. Second, even if there were time and interest such alternative data collection raises problems of trust, co-operation and morale. To duplicate the work of an appointed individual or committee implies, naturally, a lack of trust in the work of the other party. Thus, subordinates may be able to considerably influence the ability of managers to control them.

This problematic of consensus between superiors and subordinates may be generalized to an analysis of micro- and macro-power differentials between and amongst interest groups which are within and without the focal F-set. The work of Pettigrew (1973) nicely illustrates this point where a power struggle took place between Kenny and his systems manager, Reilly, and between Reilly and his programming manager, Turner, conerning the purchase of a computer system. Eventually, Kenny was able to exert biases in favour of his own demands because he possessed a major strategic advantage in the power conflict by virtue of his placement as a gatekeeper along vital communication channels. In general then, as was pointed out by Pfeffer and Salancik (1978), demonstrated by Friedlander and Pickle and depicted in the F-set, different interest groups often make different and incompatible demands on the coalition, which gives rise to different criteria of effectiveness. As argued earlier, criteria of O.E. are measured by monitoring participant behaviour in participation and production. In addition a universalistic surrogate measure of organizational balance was proposed in terms of the system's adaptive capacity. But what was left undiscusssed was whose acts of production and participation are desired more critical and vital for viability? Whose criteria of effectiveness must be balanced or traded-off against whose? Although it is a near truism to state that criteria of effectiveness are social constructions reflective of underlying and particular interests (see

Hopwood, 1979) it is nonetheless true that we lack empirical knowledge as to how power problematics and differentials of the kind described above influence the establishment and overthrow of specific "regimes of effectiveness". How, for example, do the mutual processes of conflicts of control between superiors and subordinates, between those who have power and those who have not as much effect the choice of a particular mix of inducements and contributions which benefit interest groups differently and which give viability to particular facets of effective performance? A choice and visibility which by some accounts significantly influence corporate action and response to environmental demands. For example, in a study of insurance companies, Becker and Neuhauser (1975) found that different patterns of visibility for the financial consequences of corporate action themselves explained the major portion of the observed variance in the ratio of profits to assets. In a later study of American hospitals (Shortell, Becker and Neuhauser, 1977) illustrated how emphasis on the measurement and reporting of either the economic or the medical components of organizational performance could result in very different outcome consequences if they were disseminated through the relevant organizational communication and decision processes. With such dissemination, hospitals who measured economic consequences were indeed cheaper whilst those emphasizing medical consequences tended to be more innovative in the use of both medical technology and pharmaceuticals. How and why do these criteria of effectiveness become such influential "things in the world"? What micro-political and macro-societal interactions amongst interest groups gave rise and enabled the importance or "criticalness" of attending to particular criteria of performance in order to remain in the F-set in the long-run? As Hopwood (1979) points out:

> "Criteria of any variety have little more than the potential to influence corporate action. The realization of that potential is dependent, however, on the way in which articulated criteria interlink with the complex social and organizational processes through which they are endowed with a particular meaning and relevance." (pp. 93-94, Hopwood, 1979).

We shall elucidate several such processes which form our central focus.

Our discussion so far may be depicted diagrammatically as below:

Powerful Groups
Within and Without
the Focal F-Set

Less Powerful Groups
Within and Without
the Focal F-Set

feedback

feedback

Interaction

Criteria of Effectiveness
that need to be met in
order to achieve long-run
survival
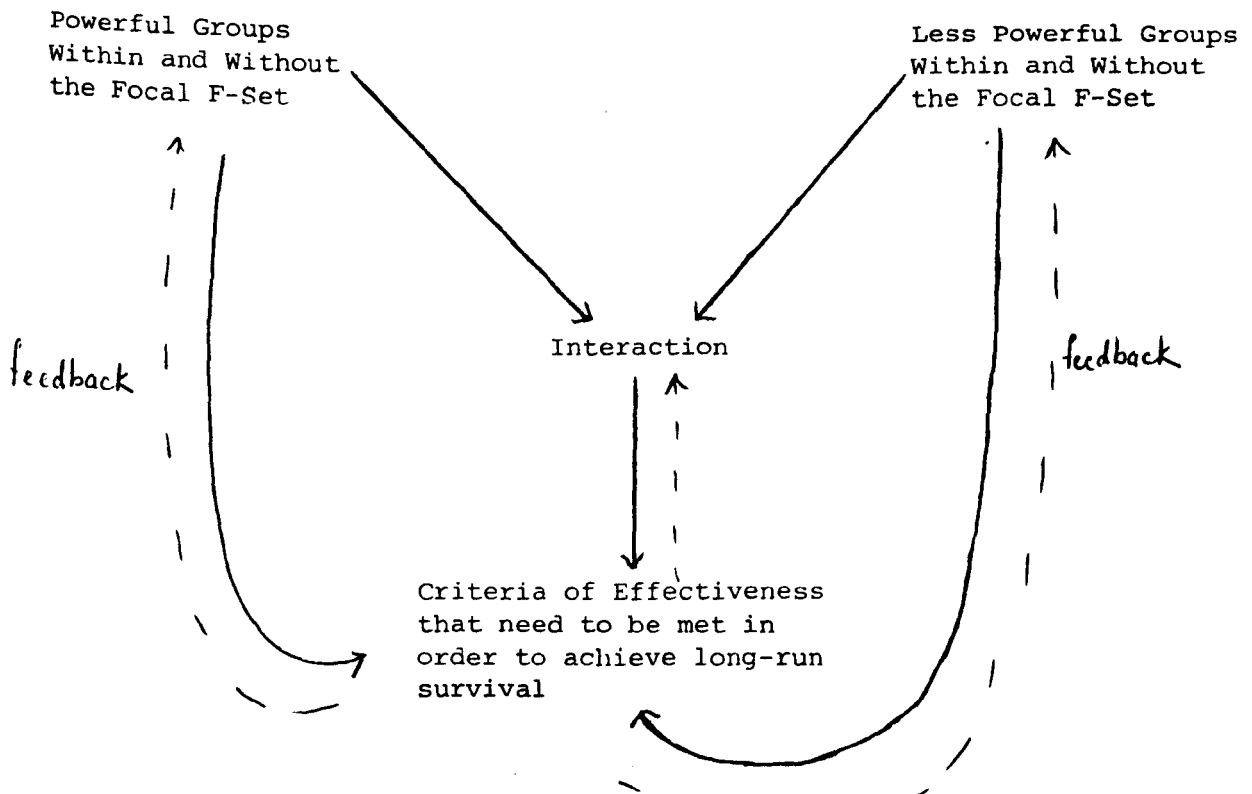
Diagram 8.14 Power Processes and O.E.

That is, the interaction and possibly conflict between groups with power and those with relatively less influence the definition of and the kind of participant needs that require satisfaction in order that the F-set is maintained in the long-run. It also shows that it is most likely that powerful groups will be able to impose their definition of effective performance but equally that less powerful subordinates may have considerable influence in enforcing their interests and criteria. The work of Crozier (1964), Mechanic (1962) and Pettigrew (1973) illustrate how the concept of dependency brings about these phenomena. For these three pieces of research essentially show that within organizations, dependency and hence power may be generated by controlling access to the resources of information, persons and instrumentalities.

The dependent aspect of power has been treated most fully in the power-dependence theory of Emerson (1962) and Blau (1964). Emerson (1962) wrote:

> "Thus, it would appear that the power to control or influence the other resides in control over the things he values, which may range all the way from oil resources to ego support. In short, power resides implicitly in other's dependence." (p. 32, Emerson, 1962.)

Emerson went on to define dependence as:

> "Dependence (Dab). The dependence of actor A upon actor B is (1) directly proportional to A's motivational investment in goals mediated by B, and (2) inversely proportionate to the availability of those goals outside of the A-B relationship." (p. 32, Emerson, 1962.)

Subsequently, Emerson formally defined the power of A over B as equal to the dependence of B upon A. Thus, power is defined in terms of dependence, and dependence in turn is seen to be a function of the importance of what one actor or group of actors gets from the other and an inverse function of the availability of this outcome or performance in other places or from other sources.

Power, according to this formulation is quite simply understood. It derives from having something that someone else wants or needs and being in control of the performance or resources so that there are few alternative sources, or no alternative sources, for obtaining what is desired. The

resource-dependence perspective on organizational environments mentioned earlier is essentially based on this definition of power. So is the work of Hickson et al (1971) who argued that the power of organizational sub-units is a function of (1) the degree to which a subunit copes with uncertainty for other subunits, (2) the extent to which a subunit's coping activities are substitutable, and (3) the degree to which the activities are centrally linked to those of other subunits. Essentially, both the resource-dependence theory of power and the uncertainty coping or strategic contingencies perspective on power are variants of each other and both emphasize the notion that dependency is the converse of power. This source of power could then enable actors and groups like Crozier's maintenance men and Pettigrew's head of management services to make their demands "vital" and prerequisites for organizational viability. That is, power based on such power interactions and relationships of dependency crucially establish certain criteria of effect-iveness in the consciousness of organizational life.

However, this process by which visibility is given to certain facets of effectiveness is but half the story. The strategic contingencies theory of Hickson et al was tested by Hinings et al (1974). They studied some twenty-eight subunits in seven organizations (five breweries and two divisions of a container company) and found statistically significant correlations between the various indicators of power and virtually all the variables from the strategic contingencies theory. However, Hinings reported that the two power scores were only significant · when the subunit had the top scores on all the strategic contingency variables. This would indicate that coping with uncertainty alone does not provide domination and power but that it must be accompanied by work flow pervasiveness and centrality and low substitutability for the coping capacity.

A more penetrating statement of the partiality and inadequacy of dependence definitions of power comes from Clegg and Dunkerley (1980), who reinterpreted Crozier's (1964) original formulation of the "control of

uncertainty confers power" hypothesis and his supporting empirical evidence.
They pointed out that the plant described by Crozier is a part of a state
monopoly organization that mass-produces cigarettes. The monopoly controls
the sales of the factory's output. Almost every activity of the system seems
to be encapsulated by constraints of a technical or organizational nature.
For instance, the organization's output goals and mechanization processes are
fixed, and the majority of petty decisions have been centralized or are
rigidly standardized. The task of the factory was thus to combine 350 employees
and forty-five machines in four limited functions: (1) preparation of raw
material; (2) maintenance and setting of machines and buildings; (3) utilization
of non-machine combinations for output in several parallel production segments;
and (4) allocating of jobs among employees. It could not determine its own
mode and pace of mechanization, even its basic technology such as the allocation
of job and new capital reinvestment. At a national level, the monopoly faced
union pressure which prevented the plant engaging in any autonomous personnel
policy measures. Output norms, workload and pay rates were all fixed at a
national level. In short, for people working in the organization, "the
daily problems of running the plant are completely boring" (Crozier, 1964).
The plant is an almost completely routinized and de-skilled production unit
and paralleled by an almost completely routinized task structure for monitoring
and controlling the situation.

However, within this formal bureaucratic, rigid system, there was room
for individual, local power. The maintenance engineers were able to gain
power and use it in their own interests as opposed to those of supervisors
and production workers but only because of the de-skilled, fragmented nature
of production worker's jobs which, in addition, were paid on a piece rate
payment system as compared to skilled maintenance work which was paid on a
fixed salary. Only the maintenance men had the necessary skill for repairing
the machines; this gave them a situational skill which then became the basis of
a local plant dependence upon them by both management and workers. That is,

though these men were able to gain power, they nevertheless remained subordinates, remained within an existing set of organizational and societal rules. Crozier did not claim that they were the most powerful members of the industrial bureaucracy because of their undoubted success in controlling, in an almost monopolistic manner, discretionary tasks of their work. What he does suggest, so Clegg and Dunkerley (1980) argue, is that given the formalized power structure of a task-discontinuous organization there exist areas of uncertainty which groups or individuals are capable of controlling. So these areas become key resources by means of which individual and groups procure less dependence and more power but in a manner which does not disturb essential "ground rules". Essential values, norms and power bases on a macro-societal basis, which ensured that the organization's dominant power structures and criteria of effectiveness were consonant with these values. What Clegg and Dunkerley (1980) rightly criticize is the tendency of dependence-power theorists to locate sources of dependence and power only within the micro-organization and hence ignore macro-societal influences. In addition, such behaviourist-oriented, one-dimensional views of power (derived essentially from the work of Dahl, 1957) tend to concentrate on observable behaviour in key decision-making areas with subjective interests seen as policy preferences revealed by political participation. There is a neglect of what Lukes (1974) calls the two-dimensional view of power which emphasizes decision-making as well as nondecision-making, issues and potential issues and interests revealed through policy preferences and grievances. As Mechanic (1962) argued what is interesting is not that subordinates or other similar less powerful groups accept the instructions of managers or other more powerful groups because of the greater power possessed by management. Rather, it is interesting that in spite of the considerable power potentially exercisable and exercised by lower level employees, these employees still accept the power of managers to direct and define effective work performance.

This then raises a second process which facilitates the establishment of

effectiveness: legitimation based on norms, values and beliefs. Legitimation is used here in two senses. On the one hand legitimation refers to an acceptability of wealth, power, status and resource distributions, in general systemic strategies, based on a social, collective consensus about rightful privileges and distributions. The point here is that although it is true that the manager may have the power to fire employees and to withold rewards such power is only a partial explanation for employee behaviour. Employees do not consciously and consistently compare their power (to withold labour services, to leave, to withold information, to do the work poorly) with the power that the manager has (to use rewards and sanctions), and then decide whether or not to comply depending on the relative power balance. Rather, most of the time in most work settings the authority and effectiveness mandate of the manager is so legitimated by societal and organizational values and taken for granted, that issues of relative power seldom become consciously considered. Subordinates obey not because the supervisor has the power to compel them to; rather, they follow "reasonable" instructions related to the control of their work behaviour because they expect such directions to be given and followed. This is what Bachrach and Baratz (1962) call the other, more subtle face of power. Power that expresses itself quietly and not in the form of a conscious cabal exercising explicit power in decision-making areas. Power that resides in the ability to circumscribe overt and covert decision-making areas to "safe" issues, to mobilize thinking, perception and action to specific "biased" directions. To sanctify and normalize their criteria of effectiveness as a customary and wholly acceptable part of social interaction. Lukes (1974) argues that a three-dimensional view of power would encompass these points and even expose the contradiction between the interests of those exercising power and the real interests of those they exclude.

The argument that these values and norms within organizations actively influence individual and organizational action is clearly exemplified in our discussion of the dimension of supportiveness S. Different levels of

supportiveness[5] and different micro-cultures mediated by personality variables will influence behaviour for they serve to define what is an acceptable strategy.

Societal values and norms are of equal, if not greater, importance. Pfeffer and Salancik (1978) report the case of the FAS (formerly Famous Artists School) which, in 1970, filed for reorganization under the bankruptcy laws. Because of the manner in which it conducted its affairs it had been deemed by societal rules of "fairness" and "justice" not to have fulfilled its obligations to its participants.

The unequal distribution of an ability to define what is "right" or "wrong", "just" or "injust", and other such norms of social and individual behaviour was termed by Habermas *Herrschaft*:domination. He was especially concerned with this form of *"superstructural"* domination whereby one group/groups in society possess greater power to define the normative structures of thought and action. In so doing Habermas attempted to enrich (not to usurp) the traditional Marxist insistence on a theory of power which is necessarily linked to the material relations of production, itself a variant of the dependency aspect of power. While organizational and societal norms may, in some instances, be linked directly to the mode of production, it need not be. The subordinate role of women in Western society, the designation of forms of work as "for women only" or the differentials in a woman's wage, for example, represent instances where domination existed prior to the advent of capitalistic relations of production. Thus organizational and societal norms may confer power on certain groups or individuals, independent of the relation of production; the precise emergence of such norms being themselves a result of a confluence of\historical traditions of domination, of relationships, events, unpredictable chance events, violent discontinuities. This mutual interaction between power, domination and the bases which make such inequalities possible is shown in our next diagram, Diagram 8.15, in a series of feedback loops. Here the interaction and power

Key: X   Power exercised in decision making.

O   Power exercised in non-decision making.

Macro-societal Norms, Values, Beliefs, Ground Rules

Micro-organizational Norms, Values, Beliefs, Ground Rules

Powerful Groups
Within and Without
the F-set.

Less Powerful Groups
Within and Without
the F-set.

Struggle Over
Resources

Interaction

Criteria of Effectiveness
which are empirically
highlighted and become
important in determining
long-run survival.

Micro-organizational Norms, Values, Beliefs, Ground Rules

Macro-societal Norms, Values, Beliefs, Ground Rules

Diagram 8.15: Power Processes at the Micro-, Macro-Levels

and Measures of O.E.

relationships between interest groups is seen to be reciprocally rooted in dependency relations, micro-organizational values and traditions and macro-societal norms.

This concept of macro- and micro-structural rules, values and beliefs lies at the heart of neo-Marxist critiques (see Perrow, 1979) of traditional theories of power which they claim only emphasize the dependency aspect of power. While it is accepted that dependency is the converse of a form of functional or expert power they argue that the assumption of a freely competitive power struggle in the organization's domain obscures vital ground rules which have their own independent control over action. However, such theorists often argue for what we feel is an oversocialized (to borrow Wrong's (1961) term) version of man. That the individual is essentially a social being who, as a bearer of social relations, is ruled and dominated in the last instance by rules of economic power. That power is always a particular type of social action that is constructed and acted out by individuals as a ruled enactment. The individual in such theories of power becomes a near non-entity, wholly encompassed by a network of social relations. He loses a sense of strategic choice, of being the part-determinant of his own individual actions. Indeed, his individuality is questionable. For the individual then becomes no more than a "bearer" of a particular rationality in which an "objective principle" is regarded as a concrete object which

governs domination; which concerns and grants the prior capacity to be able to exercise power (in dependency situations) in the first place. That such phenomena exist is not disputed; clearly prevailing social, political, economic and ethical values do influence definitions of "vital", "need" and "effective performance". Such normative structures do define and circumscribe acceptable strategies and ways of behaving, they are manifested in everyday life. However, there is little theoretical justification for viewing such

structural determination as the totality of influence. Just as man is not completely free, he equally is not completely constrained by societal and micro-organizational values and beliefs. There is room and space for individual interpretation and manipulation of dependency relationships. As will be illustrated later on,   normative structures, dependency inter- actions and individual interpretations and creative coping shape and determine the specific facets of effective performance.

We therefore define power generally by saying that A exercises power over B when A affects B in a non-significant manner, to the extent that A can get B to do something that B would not otherwise do. Such power may refer to an ability to control resources which, when agents engage in or refrain from practices, produces effects on other agents. It also refers to an ability to set parameters in thinking and perception such that certain facets of effectiveness may become more vital, either in a substantive or symbolic sense than others. It is important to emphasize that we do not define power as a successful action of A on B, this would confuse the successful exercise of power and potential power, a criticism often levelled at Dahl's original conception. It is important to note that the words power and domination (Herrschaft) denote an unequal distribution of the power to influence. It is also important that as here conceptualized the concepts of power and domination may be applied to any interaction or relationship. In effect, every coupling between two individuals or groups of individuals is potentially a relationship of power and domination; each is potentially a situation where an inequality of influence exists.

The word "legitimation" may also refer to another phenomenon: the process whereby explanations and decisions are made consonant with parti- cipant values and interests. Janis (1975) uses the term "groupthink" to refer to an extreme process of concurrence-seeking among members of a cohesive group.   Similarly Chaffe (1980) found that despite the emphasis on rationality and the use of 'rational' criteria, allocations of

important resources, such as funds and equipment, at Stanford University were predicted from many of the same variables, such as departmental power and student enrollments, that had accounted for allocation outcomes at Illinois and California Universities. Yet because of the decision-making processes and apparatus in place, the process was perceived as being much less political by the participants at Stanford. That is, where decisions and choices are framed in dominant modes of rationality which are consonant with participant expectations they become justifiable, meaningful and "objective".

Organizations can thus be viewed as systems of activity in which participants attempt to develop and convince others of rationalizations and explanations for these patterns of activity and for their criteria of effectiveness. The explanations which are developed are constrained to be "rational" in the social context, and there is, in addition, a preference for explanations that provide feelings of control and justice. In the micro-political and macro-societal web of interactions, various interest groups often attempt to develop such explanations, rationalizations and legitimation for their desired activities and choices which are themselves frequently resolved through the use of power. As Pfeffer (1981) points out, there is a necessity to differentiate between substantive outcomes of the decision-making process and sentient outcomes brought about by symbolic language. The former is often determined by the distribution of power in a situation whilst the latter serves to render such power less visible. Further, the symbolic and substantive aspects of organizational action are not clearly linked. For instance, choices or decisions may precede the development of explanations or justification, just as behaviour frequently precedes the development of the attitude consistent with behaviour (Bem, 1972). Also, as pointed out, there is a less than perfect correspondence between attitude and behaviour, hence the link between justification and explanations for choice and the choices themselves can be loose.

The use of language as a means of legitimation, indeed as a strategy for maintaining and/or changing power structures and facets of effectiveness

is thus taken as a major variable of study. How does language play a role in articulating and establishing criteria of effectiveness? It is here that the hermeneutical emphasis of writers like Garfinkel (1967) and Goffman (1961) help to sensitise explanations of individual and organizational action. Clearly, the provision and emphasis of information of a certain type will influence decision-making. We have ample empirical evidence to substantiate this hypothesis. But what is perhaps more difficult to document is the everyday use of language: words, expressions, phrases which are taken for granted within a historical, social and organizational context and which reflects norms and deep structures. We contend that this everyday language is of vital importance in organizing a mode of rationality in providing a cohesive gel to organizational thinking and identity. Apart from the use of language in furthering particular definitions of O.E. we shall also highlight other political and power strategies in our empirical work. Strategies such as the control of agenda items, the use of "objective" outside experts, the promotion of "like-minded" persons to positions of legitimate authority, the performance of rituals and organizational ceremonies, the display of organizationally accepted symbols and so forth. As Peters (1978) has argued

> " . . . symbols are the very stuff of management behaviour. Executives, after all, do not synthesize chemicals or operate lift trucks; they deal in symbols." (p. 10, Peters, 1978.)

We would add that such dealing in symbols and ceremonies is undertaken by all organizational participants and not merely management in the advancement of their demands and concept of effective organizational performance.

We have come to the conclusion of a complex, empirical model of the definition, measurement and determinants of O.E. within a technical and hermeneutical interest. Our model is an extension of Tinker's CF-set in that it extends the concept of O.E. to one of long-run survival, explicately tests a weak statement of Ashby's Law and incorporates an analysis of power on both micro and macro dimensions.

The concept of long-run survival as defined above is not similar to the

crude concept of physical survival which has often been proposed or implied
in the past (Gibson et al, 1979, Katz and Kahn, 1978). As argued, we are
not interested in assessing the level of physical survival of the organization
per se but in the level of long-run need satisfaction. This is because
organizations are viewed as functional entities which are not set up for
their own sake but the satisfaction of participant needs. Emphasizing this
as the normative criterion for O.E. evaluation also describes a possible
course toward long-run stability of the macro-societal system. As Keeley (1978)
pointed out generally aversive system consequences which lead to participant
satisfaction ought not, and in the long-run _probably_ will not be tolerated
by participants. Micro-organizational and probably macro-societal crises
could develop due to a large reservoir of unmet needs and this might lead
to grave instability within the micro- and macro system.

Though the criterion O.E. is a univariate one, indicators of the propensity
to survive are derived on a variety of acts of participant satisfaction with
production and participation. As such, these measures do not reify the
organization into an autonomous system that is important for its own sake.
The definition and indicators of survival are tied to the functional notion
of participant satisfaction, thus avoiding the imputation of _a priori_ system
needs or system imperatives which are far removed from participant objectives.
As Keeley (1978) points out such imputation often reflects implicit value
judgements which are not discussed in detail. For example, Scott and Mitchell
(1976) argued that the general goals of systems were stability, growth and
flexibility.

> "These goals are fundamental of the organic models of modern organization
> theory; they are derived from the heritage of system theory in the
> biological sciences; and most importantly, they are criteria for
> appraising organizational health." (pp. 59-60, Scott and Mitchell, 1976.)

Such "goals" are in fact reflections of the misuse of Von Bertalanffy's
organismic analogy. For there is little justification for these biological
imperatives when one applies them to collectivities with different purposes.
For example, an ad hoc organization may not wish to grow or to survive

physically in the long-run. Indeed it is such bland application of the organismic analogy that has let to a growing list of abstract systemic needs that do not relate well to each other.

The F-set thus incorporates explicitly a normative criterion which may be subjected to debate and verification; unlike previous analyses it seeks to avoid an illicit smuggling in of undiscussed value biases. It is due precisely to the explicitness of its assumptions that we may later build this initial theory of O.E. into a critical theory of organizational assessment. The weakness of parochial, partial, so-called descriptive models of O.E. are hence avoided. It is accepted that the ultimate death or non-survival of the system needs a longitudinal research methodology. However, an attempt has been made to overcome this problem by including a measure of the system's adaptive capacity, the argument being that this is a surrogate measure for long-run viability.

It is further accepted that the F-set does not pinpoint a particular feasible strategy as being the optimum for that would involve serious theoretical problems e.g. the comparison of interpersonal utilities and levels of satisfaction and the adjudication of competing constructions of reality. But simple, optimization principles such as those suggested by Rawls and adapted by Keeley (1978) or created by Bentham and borrowed by Cummings (1977) are parochial and non-generalizable.

Their difficulties as discussed earlier suggest that a satisficing notion is more appropriate for a theory of O.E. We have also supplemented and complemented Tinker's CF-set with an analysis of how power influences the actual choice of particular criteria of effectiveness and particular feasible strategies and the subsequent consequences for organizational action.

However, let us also be clear about the assumptions behind the F-set for these will form the object of critical reflection later in the thesis. In order that the concept of long-run survival is concomitant with need-satisfaction the theory is predicated on four vital assumptions:

(a) it assumes a free movement of participants and their groups, such that if a participant does not receive adequate benefits within the organization, he is able to withdraw his contributions and join alternative coalitions. Hence the continuing survival of an organization indicates that it is continually able to satisfy the needs of those participants who collectively are necessary and sufficient to guarantee its survival;

(b) the corollary of (a) is that the non-survival of an organization indicates in general that it no longer meets the needs of these essential participant groups. An organization ceases to exist only for these reasons. An ambiguity creeps in here, for the definition of "essential" participants is likely to change depending on whether one speaks of systemic continuity or non-continuity. For example, skilled workers may be essential participants in a state of health, they are essential in the sense of being required for the continued production of wealth. However, in a state of non-continuity they may not be essential participants in that their demands are of less importance. The decision to discontinue could be made entirely by another participant group e.g. the state. The analyst must, therefore, be extremely cautious when applying the theory of the F-set to evaluate the effectiveness of empirical organizations;

(c) by arguing that such a theory facilitates stability at the macro-societal level implies that such stability is intrinsically desirable and conflict may only be viewed as a disruptive influence; and

(d) the theory assumes that a definition of satisfaction as given by participant actors is sufficient material for analysis. It does not inquire into forms of "false consciousness" or "ideology" in the Marxian or Habermasian sense. Indeed, such concepts are alien to the F-set ideas as presently formulated.

Chapter 9: Developing Data Measures of Theoretical Constructs

9.0 Introduction

In Chapter 8 we set out in detail a theoretical model of O.E. that incorporated both static and dynamic dimensions. In Chapter 7 we described the empirical site in some detail and in Chapter 6 we set out the methods and process of our research. Here we intend to present in detail the means by which we operationalized our theoretical constructs into empirical data measures and to assess the statistical validity of the degree of the concept-data measure correspondence. In this way we seek to discuss the internal, the external and the theoretical validity of the model set out in Chapter 8.

9.1 The System Defined

As pointed out earlier, our system of investigation is defined as the Mayfield General Nurse Training System. This conceptual and empirical system of relationships is not identical empirically with the Mayfield Area Training System as we have concentrated only on the general course of training. As discussed, this choice was made for a number of reasons: (a) the general component represented by far the largest contingent of nurse training (approximately 50% of the 1,300 learners were in general training) and therefore captured a large proportion of the entire learner participant group of the Area Training System; (b) there were insufficient expertise, funds, effort and time to learn the workings of a complex Area Training System that encompassed a wide geographical area, and (c) it was felt prudent to analyse the concept of O.E. and corporate accountability and to develop non-financial measures thereof in a more limited empirical setting. The closure of our system for investigation was therefore effected at the general nurse training level.

Essentially, this covers learners studying for the S.R.N. and S.E.N. qualifications which are generalized nursing qualifications that equip a nurse to work in the main general acute case specialities like medicine and surgery.

Drawing the boundary of our system round the general component of training alone does not in itself present a theoretical problem. The closure of a system and the choice of a resolution level of analysis depends partly on the insight and purpose of the observer-researcher, on existing theories about the role and purpose of knowledge and on disciplinary traditions governing the study of particular problem contexts. As the purpose of this thesis is to test a general argument about organizational behaviour, then the main requirement is that a social or several social collectivities be the focus of empirical research. That such a collectivity may not accord with legal definitions of the entity is in this instance less relevant as the general nurse training system functions autonomously and is independent of other courses of training.

Having delineated conceptually a system for investigation we depict the system pictorially in Diagrams 9.1a, 9.1b and 9.1c. The first diagram shows the system-environment relationship at the lowest resolution level of analysis. The system and its environment are black boxes and only the input-transformation-output process is observed. Four main inputs are identified, these are the patient's needs for health, nursing recruits, funds and information and the main outputs are argued to be satisfaction of patient needs, information and qualified nurses. For the time being the input-output process is characterized in 'matter-of-fact' terms for simplicity, for clearly, one could argue that a nurse training system draws in a variety of inputs and produces a multitude of other effects, which may be intentional or not. A discussion of the wide-ranging effects of a nurse training system will be postponed till later chapters and here we are mainly concerned with the conceptual task of defining our boundaries of analysis.

General Environment

```
┌─────────────────────────────────────────────────────┐
│                                                       │
│   Substantial Environment                             │
│                                                       │
│                        ┌──────────────┐               │
│             INPUTS      │ The System as │  OUTPUTS     │
│             ───────▶    │              │  ───────▶     │
│                         │ a Black Box  │               │
│             Recruits    └──────────────┘  Nurses       │
│             Funds                         Information   │
│             Information                   Health, Satisfaction │
│             Patient Needs                 of Patient Needs │
│                                                       │
│                                                       │
└─────────────────────────────────────────────────────┘
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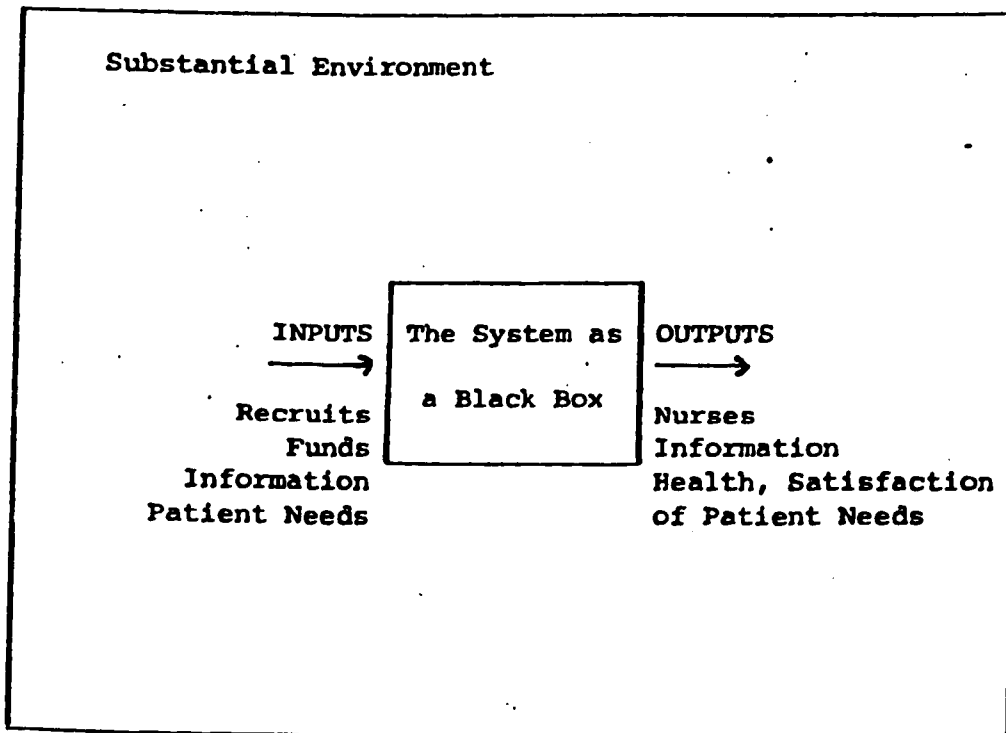
Diagram 9.1a: Modelling the System;Environment Relationship

at the First Resolution Level

Diagram 9.1b shows the nursing system with its two primary sub-systems : the education and service sub-systems which are linked by the allocation function. As Chp. 7 demonstrates, both sub-systems have their own work hierarchies. Broadly speaking, both hierarchies are similar in that the jobs with higher levels of pay, status and power are administrativ jobs and the higher one moves up the respective hierarchy, the less direct contact one has with the patient/learner within the system. The Allocation function at Mayfield is small in terms of the number of staff employed and plays essentially an integrative, co-ordinating role. It acts as a buffer and as a mediator between the somewhat different objectives of both primary sub-systems. All three functions are, however, involved in the process of nurse training and hence the arrow denoting the transformation process passess through all three functions.

General Environment

Substantial Environment

Education Subsystem

INPUTS   TRANSFORMATION   OUTPUTS

                PROCESS

RECRUITS   NURSES
FUNDS   INFORMATION
INFORMATION   Ward-based Teaching Staff   HEALTH
PATIENT   Teaching Management   SATISFACTION
NEEDS   OF PATIENT
                                                  NEEDS
                          Allocation
                          Function

                Nursing Service Subsystem

                Ward-based Nursing Staff
                Nursing Service Management
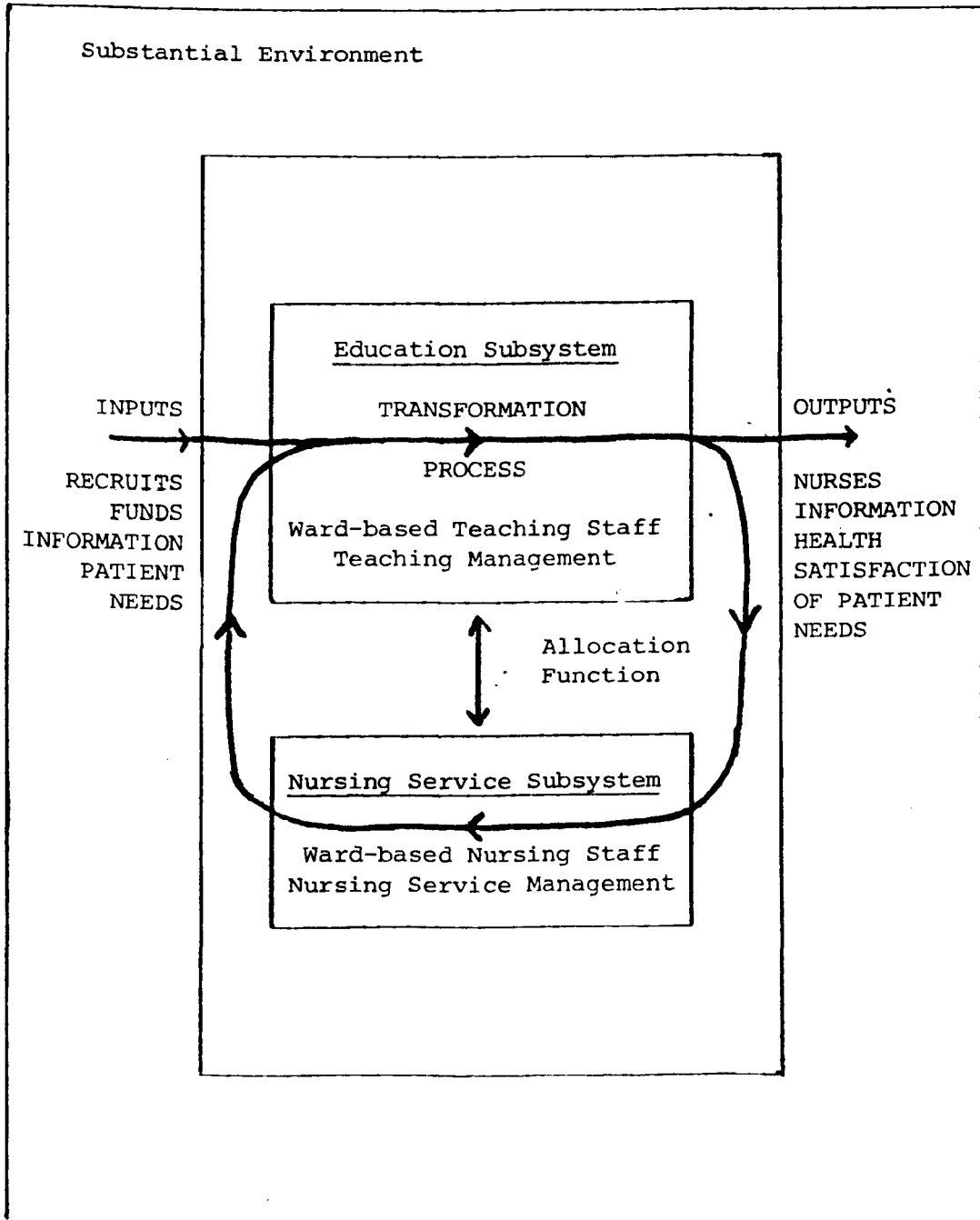
Diagram 9.1b: Detailing the System in the System-Environment

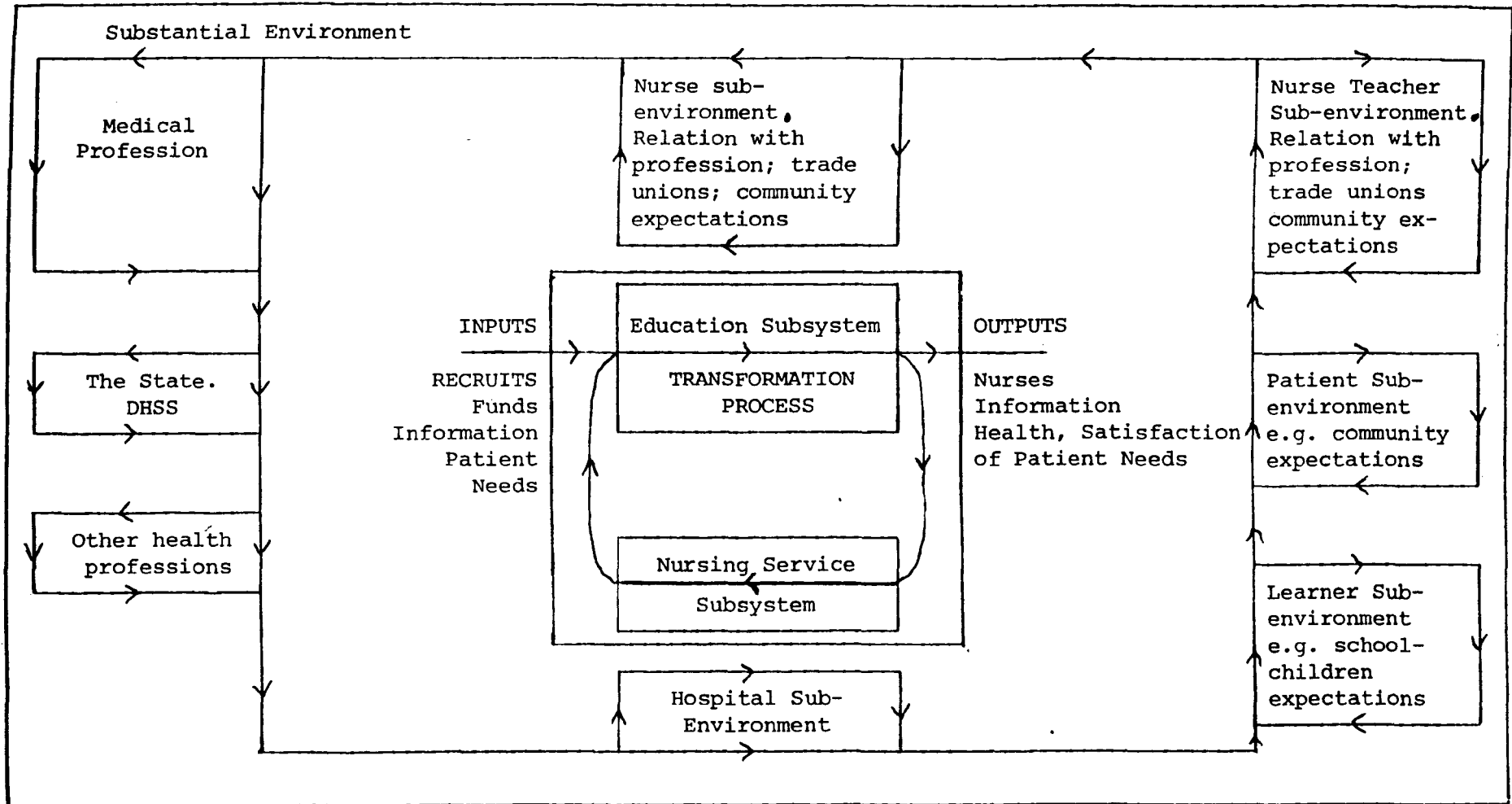   of the Nurse Training System

General Environment

Diagram 9.1c: Detailing the Environment in the Systems-Environment

Model of the Nurse Training System

Diagram 9.1c shows the complexity of the nurse training environment at Mayfield. In particular, we have tried to highlight specific sub-environments in such a way as to show that the system and its environment are intricately bound; one is in fact the mirror image of the other. Thus, learners relate to a specific part of the environment (the learner sub-environment) and this is in turn related to other parts of the environment and system. We have noted one element within the learner sub-environment, that of images developed of nursing and the role of nurses whilst the learner was still at school. These expectations or role images of potential recruits play an important role in nurse training for they influence the learner's perception of and response to training; and they also partly determine the present sexual bias in the composition of nurses. Other elements of the learner sub-environment could be the level of educational attainment demanded by the employing institution. Yet another important factor is the level of youth employment. This last factor was especially important in our research because it was conducted during the period 1979 - 1981, a period of record levels of youth unemployment. This situation clearly influenced the leaving and staying behaviour among learners and the ease with which Mayfield could raise its level of educational requirement. In addition, the level of adult unemployment is also an important variable because learners require full-time employment once they have qualified. In the past, it was traditional that nurses who had finished training would be almost automatically employed by the training hospital. There are signs, however, that this may not be the case and a greater competition for jobs is forcing learners to look further afield for post-qualifying employment.

The patient sub-environment is another important influence on the activity of the nurse training system. For the patients are a section of the community which the nurse is supposed to serve. Thus, the activity of the nurse training system will be influenced by patient and community expectations about the value of the nurse and the kind of care expected.

The nurse teacher and the qualified nure's sub-environments are a third influence factor. Within this set, we have highlighted in particular the relation of nurses to their main professional associations and to trade unions. The General Nursing Council of England and Wales (to be replaced in 1983 by the United Kingdom Central Nursing Council) acts as the chief policy-making body for all nurses. It determines the length and type of nurse education, sets examinations and certifies not only learners, nurse teachers but also nursing schools as being 'appropriate'. Changes in their policies thus affect all nursing schools on a national scale. Another important 'professional' association is the Royal College of Nursing (R.C.N.) which represents the majority of nurses in negotiations about working conditions, pay etc. with the state. Other trade union organisations which are beginning to play a role in the nursing arena are N.U.P.E. (the National Union for Public Employees) and C.O.H.S.E. (the Confederation of Health Service Employees). Such insitutions are important parts of the nurse's environment because they raise deep issues about society's treatment of its nursing force, and ethical questions about the nurse's right to strike. A nurse learner is both an employee and a trainee, she is entitled to join a trade union and comes within the province of employment-related laws. If she wishes to do so, she can join in strike action, an act which clearly contradicts the traditional nursing dedication to altruistic service.

Yet another facet of this sub-environment of nurse teachers is the influence of nursing models from North America, in particular the USA. The bulk of nursing research stems from the States and so, in general, do new definitions of 'effective' nursing techniques. The much-discussed nursing process and the concept of the nurse practitioner are both ideas that originally emerged in North American literature and are now influencing nurse practice and education at Mayfield.

Finally, both the qualified nurse and nurse-teacher sub-environments are influenced by wider social attitudes about the role of women in the work-

world. Nursing was and is predominantly a female occupation (MacGuire, 1980) and a large proportion of its workforce is female. The size of this workforce is influenced by community and social 'ground rules' about the role of mothers,wives, and women in general in the field of work, defined as income-generating occupations (employment). Prior to the Second World War, nurses invariably stopped work after marriage to start a family. However, career and work patterns of U.K. nurses in the 1970s and early 1980s have not reflected these early trends. The work of MacGuire (1980) shows that a significant proportion of qualified, married nurses are returning to work on a full-time or part-time basis, thus reflecting a significant change in social expectations about the role of wife and mother in the United Kingdom. The availability of this labour pool feeds into and is related to the overall picture of alternative forms of employment open to nurses, both qualified and learner nurses.

The medical sub-environment is also hypothesized to be an important influence on nursing and nurse education. There is sufficient historical evidence to suggest that the tensions between these two professions have significantly influenced nursing's attempts to gain professional status (see Abel-Smith, 1960; White, 1978) and the way in which nurse education is presently structured. As will be later argued, nursing has essentially been built on the medical model of man and nurse education itself breeds forms of discipline which perpetuate the nurse's subordinate role in relation to the male doctor.

The activities of the State are clearly of importance to an analysis of the UK nurse training system. Since the National Health Service Act of 1946 and the nationalisation of health care in Great Britain, the State has played a vital role in shaping the provision of health services and the organization of health education, research and experimentation. Significant Acts of Parliament which affect nurse education and our micro-organisation in particular include the Salmon Report (1966), the Briggs Report (1972), the

reorganization of the Health Services in 1974, the setting-up of Area Schools of Nursing in 1974 and the Merrison Report (1979). In addition, there have been numerous reports governing the issue of nurses's pay, for example, the Clegg Report on nursing pay parity. Our documentation of the history of the NGH and the SGH has also revealed how state action can mediate the power relations between important interest groups and aid some in their efforts to gain greater status and prestige.

The nurse, whether as a learner or a qualified nurse also relates to other health professionals within the health arena, for example, the social worker, the physiotherapist, and various welfare specialists. The nurse's concept of her role and of her 'rightful area' of competence is clearly influenced by the existence of such professionals and their concept of their roles. There could be instances where another professional could be viewed as a competitor or as a depository of difficult patient problems. For instance, research suggests that the general nurse displays a significant lack of knowledge about psycho-social care (see Rosenthal et al, 1980; Kramer, 1974). It could be that the existence of these other professionals enables the nurse to 'pass on' psychological and anxiety-ridden problem situations to them. A study of the role of these other workers vis-a-vis the nurse is thus theoretically valid.

Finally, the hospital as a sub-environment of the nurse training system is also significant. Hospitals have been described as microcosms of society and they have long occupied a place in medical sociology. They differ as to the specific criteria of effectiveness emphasized (see, Becker and Neuhauser, 1975) and the specific philosophies of health care employed. These differences in turn influence the structure of nurse training. At Mayfield, for example, the SGH had a different ward lay-out system from the NGH and this reflected the hospital's belief in the importance of a provision of patient privacy. The SGH also had a policy of care on a 24-hour basis. This meant that there was to be a continuous, smooth change - over of shifts and there were to be

fewer divisions between 'day staff work' and 'night staff work'. The SGH was staffed by ward receptionists who handled the administrative tasks of patient admittance and discharge. In the NGH, this was usually the sister's job. In the NGH, it was learner nurses who dished out a patient's food and monitored a ptient's intake; in the SGH it was ward orderlies who performed the actual serving of food. These differences are not trivial differences of procedure for they represent different definitions of a nurse's work and reflect the nurse's attempt to appropriate a particular area of competence.

Finally, it should be noted that we have linked all these sub-environments by a series of arrows because it is believed that they relate to one another in mutually interactive ways. Thus, not only does the system relate to its environment, but the parts of the environment also affect each other.

9.2.1 The Choice of Learner Absenteeism and Turnover as Surrogate Measures of Organizational Effectiveness

This choice was made for several reasons. Firstly, these measures represented an indicator of participative behaviour on the part of a vital interest group in the F-set. The official purpose of a nurse training system is to train recruits and to transform them into qualified nurses; were there to be a substantial reduction in the size of this interest group, the system would in effect run the risk of losing the raison d'etre for its existence. Indeed, if the interest group were to withdraw completely from the F-set, the system as such would no longer exist. This same argument could in principle be applied to all other interest groups, for the F-set defines all groups who are necessary and sufficient for the identification and survival of the system under analysis. However, it is argued that the interest group represented by learners captures the essence of a nurse training system. It is certainly the case that were teachers and management to be non-existent, the focal F-set would be radically different; nurse training would be organized on a new

transformed basis but the existence and persistence of learners as an interest group would nevertheless ensure the survival of nurse training as a system. Were this interest group to be non-existent the very official purpose of our system would have been transformed. It was, therefore, felt that theoretically these two measures of participative behaviour were valid indicators of the long-run propensity of the system (as defined) to survive.

Secondly, these two measures had received a good deal of prominence and publicity in the nursing literature (see Bendall, 1965; Birch, 1975; Clark, 1975; Franks, 1972; General Nursing Council, 1966; Hegarty, 1975; Hawk , 1976; Hutcheson et al, 1979; Kramer, 1974; Revans, 1964; Lunn, 1975; Mercer, 1979; Moores, 1971; Redfern, 1978; Scott Wright, 1968; Singh and Smith, 1975) There are at least four reasons for this visibility in the U.K. (a) learner nurse turnover in the late 50s, 60s, early and mid-1970s was considered high and in the period 1965-1975 averaged around 30% in the United Kingdom as a whole; (b) the increased bureaucratization and rationalization of a nationalized occupation meant that increased comparisons were being made between the costs of learner nurse absenteeism to the N.H.S. (and the state) and the costs to industry of a high incidence of absenteeism amongst industrial workers, (c) learner nurses from a significant part of the ward-based labour force in the United Kingdom and (d) measures of nursing output and effective nursing care were far more difficult to develop and implement.

Given these four reasons, we re-evaluated our choice of absence and turnover as measures of participation. We concluded that although much work had been carried out on learner turnover, the findings to date were almost entirely focused on the personality and personal characteristics of the individual learner. Micro-organizational and macro-societal influences were largely ignored. The research on absence was similarly in a rather unsatisfactory state. Despite past research efforts, there was little rigorous analysis of the causal influences on absence in general and on learner nurse absence in particular. Echoing Nicholson et al's (1977b) criticisms,

we felt that there was again too much emphasis on the individual as a unit

of analysis and too little on the system as a whole as a complex interaction

of wider socio-economic and political forces. There was also a sad lack

of information on the relationship between absence and turnover. Hill and

Trist (1955) had suggested that absence is an alternative to leaving the

organization, an alternative which enabled the individual to restore his

inducement contribution equilibrium. Another view could be that turnover

and absence are parts of a continuum which the individual possesses. The

decision to be absent thus predicts a decision to leave, and absence does

not restore the inducement contribution balance. Nelson (1975) in his

study of British nurses found some support for this hypothesis of a withdrawal

continuum. He found that each group of nurses in his study (voluntary

leavers, stayers "absent" and stayers "not absent") experienced job

adjustment difficulties which differed only in degree and not in kind. The

stayers "not absent" were the most favourably disposed towards the

organization and the leavers the least. Yet another view could be that absence

and turnover are totally unrelated in a consistent fashion. The individual's

decision to leave a job could depend on his perception of alternative job

opportunities, the ease and desirability of movement. Much work and analysis

was, therefore, required to analyse the relationship, if any, between absence

and turnover in general (see Nicholson et al, 1977b). Finally, no effort had

been made in the literature to study the relationship between individual

acts of participation and acts of production in a holistic theory of

organizational effectiveness, neither was there any detailed analysis of

the couplings between measures of O.E. at the individual level and measures

of O.E. at the systemic holistic level, such as the system's adaptive

capacity. In view of these arguments, we decided to use measures of learner

absence and turnover as indicators of the long-run propensity of the system

to survive. In particular, we were interested in "voluntary" periods of

absence and "voluntary" turnover. The latter is defined as all forms of

leaving decisions apart from official dismissal by the organization. A
list of all the measures used is given below:

Table 9.1: O.E. Measures of Participant (Learner)

Behaviour

Measure	Mnemonic	Source of Information	Operationalization Definition
1. Learner Turnover	TO	Learner Files Allocation Records	Turnover is defined as voluntary termination of a learner's employment contract with the organization. Cases of dismissal by the organization are excluded from the study. Learners who voluntarily discontinued training after a disciplineary procedure had been initiated are however included within the sample as the act of separation initiated legally from the learner.
2. Gross Absence Ratio	GAR	Learner Kardexes	The number of days absent $\div$ total possible training days up until the date of completion of questionnaire (excluding annual leave, Spring Bank holidays and compassionate leave).
3. Frequency of Inception of a Spell of Absence	FINCEP	Learner Kardexes	The number of absence spells $\div$ the number of total possible training days up until the date of completion of questionnaire. The variable has a value of O when no spells of absence had been recorded.
4. Frequency of Inception of a Short-Term Spell of Absence	FINCEPST	Learner Kardexes	The number of absence spells of three days or less $\div$ the number of total possible training days up until the date of completion of questionnaire. The variable has a value of O when no short-term spells had been recorded.
5. Frequency of Inception of a Long-Term Spell of Absence	FINCEPLT	Learner Kardexes	The number of absence spells of more than three days $\div$ the number of total possible training days up until the date of completion of the questionnaire. The variable had a value of O when no long-term spells had been recorded.

Note: all days were generally recorded as eight-hour shift
days except when a night shift was worked in which case a
day was a ten-hour shift day. Due to a reduction of the
nursing working week in the summer of 1980 some of the five-
day working weeks recorded were actually $37\frac{1}{2}$-hour weeks in
instead of forty-hour works. However, this did not in
general present a problem as all calculations were done in
converted days and on the basis of a five-day working week.

The questionnaire used to obtain information from leavers in the form of a
structured interview is identical to that sent out as a mailed questionnaire
and is shown in Appendix 9.7.

9.2.2 The Choice of Measures of Participant Production

In order to supplement these measures of participation we decided to include three individual surrogate measures of learner production. Surrogate measures had to be used as the quality of nursing care performed by learners could not be assessed directly. The researchers were not nurses and did not possess the requisite skills.

The use of measures of learner nurse performance adopted by the micro-organization itself such as grades in class, the number of practical assessments passed in the School at first attempt, or grades given on a multi-faceted ward report were problematic because of the doubtful validity and the potentiality of bias in these measures.

The use of patient evaluation of the quality of care given by a specific learner nurse was also not feasible due to a variety of reasons. Firstly, it is extremely difficult for a patient to clearly identify a learner nurse as his/her nurse unless one speaks of a long-stay patient. The constant change of staff and the shortness of the length of average patient stay make identification difficult. Secondly, it was important to try and measure the performance of the system as a whole also rather than only the individual nurse's performance. Thirdly, retrospective recall on the part of patients (especially those who have left hospital) has been known to be subject to distortion. Patients tended to recall the more pleasant aspects of their stay and, in some instances, to 'forget' their traumatic experiences. Fourthly, there were difficulties of access as hospitals in general were and still are wary of taking up a patient's time in research. Finally, we did not possess the physical resources to interview patients concerning the performance of some 309 nurses in our primary sample.

In view of these problems with patient evaluation it was decided to use the level of "professional orientation" as a measure of nurse productivity. This concept attempts to measure the extent to which a

learner nurse assimilates, agrees with or internalises a given

cognitive, mental set of values, beliefs and assumptions about "appropriate"

nursing behaviour. The rationale behind the measurement of such cognitive

components and the theoretical validity of their status as output measures

of productivity is grounded in one of the key production objectives within

the F-set of a nurse training system: that of occupational or professional

socialization. Professional or occupational schools are charged with

educating students to be skilled and committed workers who will faithfully

do the work of their profession or occupation. In essence, their charge is

to socialize students into a mode of desired action and thought, for the process

of socialization is as commonly conceived the process by which behaviour,

skills and value orientations that prepare an incumbent to perform in a role

are learnt. (See Simpson, 1979). Thus a measure of the technical effectiveness of

such a system of education is the extent to which students do assimilate and

adopt prescribed behaviour, skills and normative orientations.

However, such measurement is partly based on an assumption that such a

set of cognitive values would be translated into reactive behaviour in specific

empirical situations. The validity of this hypothesis could not, it is

admitted, be statistically verified as we could not observe the actual

behaviour of all the nurses sampled. However, it was indirectly verified by

(a) correlating measures of productivity with measures of participative

behaviour, the assumption being that were a measure of attitude to be

correlated with a measure of behaviour we would have greater confidence

in the argument that attitudes in this instance are reasonably consistent

with action; and (b) by correlating crudely respondents' answers to these

questions with observations of the quality of nurse-patient interaction on

the wards.

It was therefore decided to construct three attitudinal scales of

professional productivity which are shown in Table 9.2 together with a

measure of statistical reliability, the standardized Cronbach's Alpha

(McKennell, 1968). The Nursing Questionnaire referred to is that found in

Appendix 9.1 and the prefix A identifies the questions as being in Section A.

	Measure	Mnemonic	Source Nursing Questionnaire Items	Standardized Cronbach's Alpha
6.	Degree of Professional Orientation.	PROFORN	A51, A56, A66, A69	0.44
*7.	Degree of Identification with Professional Ideas of the School of Nursing.	IDSCH	A71, A79, A80	0.35
*8.	Professional Behaviour Observed in Self	PROBES	A57, A60, A70	0.22

TABLE 9.2: Measures of Participant (Learner) Production Behaviour

* Scales discarded eventually

The cut-off point for acceptance of a scale as an empirical measure of a theoretical variable was set at 0.40. The standards by which reliability coefficients are considered adequate vary. Both McKennell (1968) and Nunnally (1969) argue that a value of 0.5 to 0.6 is acceptable at an early stage of construct investigation, 0.8 is preferable and 0.9 is considered necessary before a psychometric set can be used as a diagnostic tool. Because the main purpose of this section of our study was to indicate theoretical validity rather than to develop sophisticated measuring instruments, we decided to set 0.4 as the minimum acceptability criterion; clearly recognizing that our results are but tentative and exploratory rather than definitive in any statistical sense of the word.

Based on this criterion, the scales IDSCH and PROBES were abandoned. The removal of both these measures of learner productivity then raised questions as to the validity of the assumption that PROFORN was a predictor of professional behaviour in specific, concrete situations. Based on a detailed analysis of the two abandoned scales and on participant observation on the wards, it was decided that PROFORN did measure (a) the extent to which learners were productive in assimilating specific normative cognitive sets, and (b) the extent to which learners would actually apply these principles in the absence of fear of criticism from persons in positions of authority. However, it must be emphasized that the scale only captures certain specific dimensions of what constitutes professional behaviour. In particular, the typification of certain patients as favourite patients is not considered an infringement of their model of professionalism.

Thus far our measures of <u>organizational</u> effectiveness have been derived from measures of participation and production of a specific participant group. Can such an empirical operationalization be defended in the face of an argument that the F-set is a holistic <u>system</u>, of which all identified participant groups are necessary and sufficient? Does a measure of the behaviour

of one of these participant groups predict reliably the action of the whole, in its ability to maintain a feasible set of needs in the long-run? Previously, in chapter 8, we had argued that in investigating the determinants of effectiveness of a micro-organization, the decisional behaviour of all participant groups needs to be taken into account. Although this has been attempted to a considerable extent, the main emphasis is on measures of organizational effectiveness which are closely linked to measures of individual effectiveness in one participant group: learners. This decision may be defended on a number of grounds. Firstly, the nature and official purpose of the micro-system being studied: a "professional" educational institution means that more so than in other micro-systems the long-run survival (effectiveness) of the whole is intrinsically coupled with the quality of the product being produced - the "quality" of the individual nurse. The actions and normative orientations of the learner nurse are one of the major, if not the main, outputs of the F-set as a whole; such outputs being related to the official purpose of nurse training and a wider purpose of health care provision. The effectiveness of the whole is thus embedded in the effective performance of the individual parts and in particular in the performance of this particular participant group.

Secondly, we have tended to use the measures of learner participation and production as a tracer for analysis of the whole, that is, though our emphasis was on one participant group, we also studied indirectly the participation and productive decisions of other participant groups insofar as they related to our measures of effective organizational functioning. The flexibility and longitudinal benefits of a case-study approach allowed the researchers time to see how the actions of other participant groups influenced and interacted with the behaviour of learners in such a way as to determine the structure and behaviour of the Area Training System as a whole.

Thirdly, we supplemented our measures of learner participation and production with systemic measures of system's adaptive and productive behaviour. These measures will be discussed later and as will be seen they seek to measure attributes of the system not of individuals which are hypothesized to be facets of the long-run propensity of the organization to survive. We have not depended solely on measures of individual effective performance, thus recognizing that though necessary such criteria of O.E. are not necessary and sufficient.

In conclusion then, we advance a cautious summary of our defence. It is recognized that our empirical operationalization of measures of O.E. include measures of individual performance and effectiveness but it is felt that these are justifiable in view of the official purpose of the system, the distinctive analytical status of learners as a participant group and the existence of complementary systemic measures of O.E. Equally, however, we would admit that such an operationalization has a weakness of theoretical inconsistency and that the empirical testing and our subsequent results fall far short of a definitive testing of the theory of the F-set and the empirical model set out in chapter 8. We did not examine directly the decision processes of all participant groups though it is doubtful whether such an ambitious objective would have been achieved within the confines of a single study.

9.2.3 The Choice of Measures of Systemic Adaptive Capacity

As chapter 8 argued, the notion of adaptive capacity is a short-run measure which is hypothesized to be a surrogate indicator of the system's degree of requisite variety and hence a surrogate measure of the organization's propensity to remain viable in the long-run. It was also argued to be a direct measure of the degree to which a viable balance had been achieved in the short-run amongst the diverse interests of different participant groups. Adaptive capacity is thus conceptualized to be a systemic or

holistic measure, an observable attribute of the system as a whole and not an attribute of its parts. The concept of adaptive capacity was argued to comprise of three components which have already been defined: flexibility, adaptability, innovativeness. Table 9.3 shows these measures and the statistical measures of reliability.

Table 9.3: Measures of Systemic Adaptive Capacity

	Measure	Mnemonic	Source	Standardized Cronbach's Alpha
9.	Flexibility (Hospital)	FLEXW	C71	-
	Flexibility (School)	FLEXSCH	C71	-
	Flexibility (System)	FLEX1	Factor Analysis of Underlying Scales	-
10.	Adaptability (Hospital)	ADAPW	C68, C70	0.34
	Adaptability (School)	ADAPSCH	C68, C70	0.45
	Adaptability (System)	FADAP1	Factor Analysis of Underlying Scales	
11.	Innovativeness (Hospital)	INNOW	C65, C67	0.44
	Innovativeness (School)	INNOSCH	C65, C67	0.33
	Innovativeness (System)	INNO1	Factor Analysis of Underlying Scales	

All three variables, flexibility, adaptability and innovativeness were initiall measured for each separate sub-system: the educational and the service sub-systems. This was done in order to allow for any significant statistical difference between the two sub-systems to be analyzed. The variable, flexibility was measured by a single item (question); adaptability and innovativeness were measured with three initial items. One was deleted from each of these latter scales in order to improve their internal consistency and reliability. The Alpha for the measure of adaptability within the service sub-system and the measure of innovativeness within the educational sub-system

were low and did not meet our requirements of 0.45; however, the scale measures were accepted as in each case, the scale measured reliably (given our acceptability criterion) within the other sub-system.

In order to assess, however, the argument that the constructs of flexibility, adaptability and innovativeness were systemic as well as sub-systemic phenomena, all six sub-scales were subjected to a factor analysis using a principal factor analytic method with iterations. Factor analysis was chosen as the appropriate statistical technique because it is hypothesized that the six sub-scales of ADAPSCH, ADAPW, INNOSCH, INNOW, FLEXSCH and FLEXW may be represented by three distinct, underlying hypothetical factors of systemic adaptability, innovativeness and flexibility. Factor analysis is thus useful in "confirming" this hypothesis because the technique, by assuming that the observed variables are linear combinations of some under-lying source variables (or factors) "exploits" this correspondence to arrive at conclusions about the factors. However, it is remembered that such empirical statistical confirmation of our technical measures of O.E. are strictly limited. This is because factor analysis as a tool begins by accepting the theoretician's assumptions that there is a degree of correspondence between certain defined systems of variables and underlying factors; subsequent empirical results might disagree with this initial assumption but the onus then lies heavily on the empirical data to dislodge the initial assumption. Given the often non-parametric, error prone, unstable nature of social science data (see Kim and Mueller, 1978a) the researcher must perforce recognize the limitations of using factor analytical methods of analysis. Further, it should be pointed out that the mathematical (logical) properties of the correspondence are such that one causal system of factors, always lead to a unique correlation system of observed variables, but not vice versa. Therefore, only under very limited conditions can one unequivocally determine the underlying causal structure among the factors from the correlation among the observed variables. This fundamental indeterminacy

in factor analysis is due to the indeterminacy inherent in making inferences about the causal structures from the correlational structure; it is a logical indeterminacy that further warns that the use of the technique and its resultant conclusions are but preliminary and non-definitive.

The factor loadings were furthered obliquely rotated to obtain a terminal factor solution. Such a rotation is based on the hypothesis that the concepts of systemic adaptability, innovativeness and flexiblity are distinct but inter-related facets of systems adaptive capacity. Because the underlying factors are hypothesized to be related to one another an orthogonal rotation could not be justified. Appendices 9.01a and 9.01b give the unrotated factor loadings, the commonalities (square of factor loadings for a particular variable), eigenvalues, cumulative percentage of variance explained and the rotated factor loadings.

In order to derive measures of systemic innovativeness, adaptability and flexbility it was decided to form factor scales of these concepts by using the precise factor score coefficients calculated by the Statistical Package for the Social Sciences SPSS (see Nie et al, 1975). The use of factor scales as measures of the underlying factors is fraught with theoretical constraints. Kim and Mueller (1978a) point out that factor scales are not identical to the underlying factors and that not only are the correlations between the hypothetical factor and the corresponding scale likely to be much less than 1.0, but also the relationships among the scales were not likely to be identical to the relationships among the underlying factors. There is always some indeterminacy associated with creating factor scales. Nevertheless, factor scales are parsimonious means of representing empirical measures. Note that adaptability is now measured negatively as "failure to adapt" and is denoted by the mnemonic FADAP1.

The question then arose as to the precise form of factor scale construction. Tucker (1971) argues that scales produced by the regression method do not allow one to correctly estimate the underlying correlation

between the hypothesized factors and outside variables. Alwin (1973), however, shows that for many research problems the choice of a method of scale construction is largely academic as there is a very high correlation among the scales produced by different scaling methods. We decided to use the precise factor score coefficients calculated by SPSS to create our factor scales. An inspection of the factor loadings revealed substantial inequality in the loadings of specific variables on specific factors. In order to increase the overall correlation between the scale and the observed variables we used the precise weightings. This we felt was theoretically more precise than arbitrarily summing all the variables with substantial loadings and giving each a weight of 1. Such a stance is additionally based on the proposition that the factor analysis model fits the data exactly in the population and that all deviations between the data and the model are based on random sampling error. This assumption is arguably valid when one conducts a small-sized piece of research of an exploratory nature. Were these measures to be subsequently used in replication studies an argument might then arise as to its appropriateness. For our purposes, we considered accuracy a more important attribute in this instance than generality.

Pearson correlation coefficients between these created factor scales are given in Table 9.4 . As can be seen they differ slightly from the factor correlations. The significance levels give us additional information; the correlations between FADAP1 and innovativeness and between flexibility and innovativeness are statistically significant and in the expected direction. The unexpected positive correlation between FADAP1 and flexibility is shown to be statistically insignificant at either the 95% or 90% level. The absence of a statistically significant negative correlation between systemic flexibility and FADAP1 is due in part to the single data question used to measure the concept of flexibility and the operating nature of the system being studied. It is possible that the use of the statement - "People here generally cope well with emergencies, unexpected situations,

shortages and breakdowns in the flow of work"-to measure flexibility in a

hospital and nursing school where such response is programmed, distinguishes

the concept somewhat from systemic FADAP1.   For in a hospital, responding

to an "emergency" is no longer a highly non-programmed decision.   Indeed,

"emergencies" as socially constructed now form a part of the normal, everyday

working life of the system.   The system thus expects "emergencies" and it

learns to be flexible in this sense.   But the system could still possess a

host of administrative, non-urgent, managerial policies which are entrenched

and impervious to changing environmental demands.

Table 9.4 : Pearson's Product Moment Correlation

Matrix of Facets of Adaptive Capacity

	INNO1	FADAP1	FLEX1
INNO1	1.000	-0.2834	0.4424
		n=302	n=302
		p=0.000	p=0.000
FADAP1		1.0000	0.0302
			n=302
			p=0.301
FLEX1			1.0000

9.2.4 The Choice of Measures of Systemic Productivity

The preceding discussion has shown how we were unsuccessful in two

of our attempts to derive a behaviour-oriented measure of learner productivity.

The scales IDSCH and PROBES were found to be statistically unreliable.

Only the measure, the degree of "professional orientation", measuring the

extent to which learners had cognitively accepted specific aspects of

prevailing nursing ideology about appropriate "professional" behaviour, was

found to be moderately reliable.   A final measure was then devised in an

attempt to measure the degree to which such behaviours were manifested

throughout the Area Nurse Training System. An eight-item scale was constructed which had questions relating to the observation by learners of defined "professional" behaviour by the three focal participant groups concerned with nurse training and which form the appropriate sub-systems of analysis: learners, staff within the educational sub-system and staff within the service sub-system.

Table 9.5 below shows the details of this scale.

Measure	Mnemonic	Source	Cronbach's Alpha
12. Level of Professional Behaviour Observed in Training System	PROBS	A51, A52, A64, A66, A67, A70, A75, A79	0.48

Table 9.5: Measure of Systemic Productivity

This scale was accepted as a measure of the level of productivity observed throughout the research system as defined in Diagram 9.1a.

We have now completed a detailed examination of our eleven measures of organizational effectiveness. Conceptually, they fall into three main categories:

(a) measures of participant participative behaviour

(b) measures of participant productive behaviour

(c) measures of system's adaptive capacity.

As discussed (b) actually had two components: (1) measures of the extent to which learners per se were "professionally-oriented" and (2) observations by learners of the extent to which they perceived "professional behaviour" being exhibited by learners, educational and service staff.

In total, therefore, eleven measures of O.E. were used in the study. Their composition is as follows (mnemonics are given in brackets):

Individual-based Measures of the Decision to Participate

1. Turnover. (TO)

2. Gross Absence Rate (GAR).

3. Average Length of Absence Spell (AVLSP).

4. Frequency of Inception of a Spell of Absence (FINCEP).

5. Frequency of Inception of a Short-term Spell of Absence (FINCEPST).

6. Frequency of Inception of a Long-term Spell of Absence (FINCEPLT).

Individual-based Measures of Decision to Produce

7. Level of acceptance of a set of defined "professional" standards

   desirable behaviour (PROFORN).

Systemic-based Measures of System's Adaptive Capacity

8. Inadaptability of the System (FADAP1).

9. Flexibility of the System (FLEX1).

10. Innovativeness of the System (INNO1).

System-based Measure of the Decision to Produce

11. Level of "professional" behaviour observed in the System of Nurse

    Training. (PROBS)

9.3 The Development of Measures of Systemic Characteristics

In chapter 8 we outlined four theoretical dimensions of differentiation^S, integration^S, uncertainty^S and supportiveness^S. Table 9.6 shows in detail the construction of data questions to measure three of these four theoretical constructs.

Differentiation^S was measured perceptually by two sub-measures PERVAS: Perceived sub-goal values of educational staff and PERVAW: perceived sub-goal values of service staff. These two sub-measures were designed to illustrate the extent to which the values and goals of each sub-system differed from and were in conflict with those of the other sub-system. The higher the scores on these two sub-measures the higher is the level of differentiation^S.

The measure of integration^S was again divided into two perceptual sub-measures: PRST: perceived relevance of School teaching and PWSC: perceived service and educational co-ordination. These two measures were also organized around the concept of differentiation between the educational and service sub-systems. Whilst differentiation^S measured the extent to which such differentiation existed, integration^S sought to measure the quality of the state of co-operation and co-ordination between these two sub-systems.

Table 9.6 : Measures of Systemic Characteristics

Measure	Submeasure	Mnemonic	Source	Standardized Cronbach's Alpha
Differentiation [S]	Perceived Sub-goal Values of Educational Staff	PERVAS	A15	-
	Perceived Sub-goal Values of Service Staff	PERVAW	A5, A89	0.43
Integration S	Perceived Relevance of Education	PRST	A22, A28, A32, A34, A38	0.67
	Perceived Service-Education Co-ordination	PWSC	A17, A19, A21, A23, A25	0.68
Uncertainty [S]	Change of Teaching Staff	CTS	A68	-
	Change of Ward Allocation	CW	A33	-
Supportiveness [S]	_____		Discussed in main body of Text	_____

Our measure of uncertainty S was based on two measures: CTS - change of teaching staff and CW - change of ward allocation. An examination of the literature (see Birch, 1975) had shown that frequent unplanned changes of ward allocations often introduced organizational uncertainty that caused considerable stress amongst learners. However, group interviews with our research sample of learners showed that this was not a vital phenomena in their lives, the change of educational staff was far more unsettling. For instance, learners complained:

> "I don't know where we are with teachers. Everytime we come into block we get new teachers and even a new senior tutor. It gets really confusing and we feel we can't really talk to the teachers because we hardly know them." Third year student, S.G.H. Group Interview, April, 1980.

> "We have transferred now to this hospital. We are getting our fourth senior tutor in less than six months. It's incredible." First year student, S.G.H. and N.G.H. Group Interviews, October, 1980.

This learner complaint of a frequent change of teaching staff was acknowledged by all levels of management within the educational sub-system as the rapid turnover and change of teaching staff also caused considerable stress within their ranks.

The final systemic dimension to be measured is the level of supportiveness S. This was defined as the cultural meaning of the organization or micro-system, a systemic dimension that was distinct from the level of differentiation S, integration S and uncertainty S. It is conceptualized as a perceptual dimension which resides in the cultural notion and "air" of the micro-system. This dimension was hypothesized to have two facets:

affiliation- and production-centredness. A system could not be described as supportive unless both participant attitudes and production were being facilitated. Our measures of supportiveness S, therefore, had to measure these two facets. In order to derive empirical measures of this theoretical construct, we turned first to an analysis of the "organizational climate literature". Here we found a large number of climate scales which appeared to be relevant as empirical

measures of the degree of supportiveness[S]. For example, Campbell and Beaty (1971) derived ten scales by means of cluster analysis of their original questionnaire items. However, these scales together with those of Litwin and Stringer (1968) have been shown by subsequent research to be susceptible to instability. In order to avoid similar problems we decided to use eight climatic measures of systemic supportiveness which had been developed by Payne and Pheysey (1971). Our choice of scales was based on issues which were regarded as significant phenomena by learners and by the researcher. This choice resulted in four authority scales, one emotional restraint scale, one work interest scale, one personal relation scale and one work routine scale. These measures were applied to the two sub-systems under study and this then generated 16 sub-systemic measures of supportiveness, whose reliability coefficients are shown in Table 9.7. All the coefficients were considered acceptable.

However, it was felt that these eight measures of supportiveness in each sub-system could in fact be represented by fewer underlying facets of supportiveness[S]. Accordingly, these 8 sub-systemic surrogate measures were factor analysed using principal factoring with iterations and ortho-gonal rotation. Appendices 9.02a and 9.02b show the factor analytic results for the educational sub-system.

The factors derived from this sub-system may be compared with those derived for the service sub-system. These results are shown in Appendices 9.03a and 9.03b.

These three factors were strikingly similar to those three which emerged from an analysis of the climatic dimensions of the educational sub-system. The first factor was labelled Interpersonal-Hindrance (IPHS) being high on leader psychological distance and interpersonal aggression; and low on management involvement, task involvement, rule orientation and extremely low on egalitarianism. The second factor was labelled Affiliative Mutual

Table 9.7 : Reliability Analysis of Sixteen Sub-scales of Sub-systemic Supportiveness

	Scale Title	Mnemonic	Source	Standarized Cronbach's Alpha	Revised Number of Items
1. a.	Leaders' Psychological Distance in Educational Sub-system	LPDSCH	C9, C25, C33, C41, C57	0.60	6
b.	Leaders' Psychological Distance in Service Sub-system	LPDW		0.59	
2. a.	Questioning Authority in Educational Sub-system	QASCH	C2, C10, C18, C26, C42, C50, C58	0.53	7
b.	Questioning Authority in Service Sub-system	QAW		0.59	
3.	Egalitarianism in Educational Sub-system	EGALSCH	C3, C11, C27, C35, C43, C51, C59	0.71	7
	Egalitarianism in Service Sub-system	EGALW		0.72	
4. a.	Emotional Suppression in Educational Sub-system	EMEXSCH	C5, C13, C21, C37	0.49	4
b.	Emotional Suppression in Service Sub-system	EMEXW		0.43	
5. a.	Management Concern for Learner Involvement in Education Sub-system	MISCH	C4, C12, C20, C28, C36, C44, C52, C60	0.73	8
b.	Management Concern for Involvement in Service Sub-system	MIW		0.74	
6. a.	Task Orientation in Educational Sub-system	TASISCH	C6, C14, C3C, C46, C46, C54, C62	0.57	6
b.	Task Orientation in Service Sub-system	TASIW		0.56	
7. a.	Interpersonal Aggression in Educational Sub-system	INDAGGS	C7, C23, C31, C39, C39, C47, C55, C63	0.78	7
b.	Interpersonal Aggression in Service Sub-system	INDAGCW		0.79	
8. a.	Rules Orientation in Educational Sub-system	RUORSCH	C8, C16, C24, C32, C46, C48, C56, C64	0.48	8
b.	Rules Orientation in Service Sub-system	RUORW		0.4.1	

Openness (LIBS), being high on questioning authority, management involvement and emotional expression; and low on task involvement, rule orientation, egalitarianism and individual aggression. The third factor was labelled Formalized Work Concern (CENS) being high on rule orientation, task involvement and management involvement; and low on leader psychological distance, emotional suppression, egalitarianism, individual aggression and questioning authority.

The results were highly encouraging and indicated that both the service and educational sub-system's internal environments were characterized by three robust underlying aspects of supportiveness.

All three factors, Interpersonal Hindrance, Affiliative Mutual Opennes Concern and Formalized Work Concern accorded with our initial hypothesis about the nature of the variable supportiveness S; containing both affiliation- and production-centred dimensions. Finally, it was decided to factor analyse all sixteen sub-scales to confirm that these three aspects of supportiveness were aspects of systemic supportiveness. Appendices 9.04a and 9.04b show the results of this factor analysis.

An examination of Factors 1, 2 and 3 show that they correspond strongly on the systemic level to measures of Interpersonal Hindrance (IPHS), Work Concern (CENS) and Affiliative Mutual Openness Concern (LIBS) at the sub-systemic level. The only change is that whilst before in both the educational and service sub-systems Work Concern had lower factor loadings and respectively accounted for 17.6% and 15% of the variance in the data, at the systemic level it accounts for 26.0% of the variance and has significantly higher loadings. This result is most likely due to correlation effects between the two sub-systems which were unanalyzed at the sub-systemic level. The factor analysis thus indicates that at the systemic level, Work Concern becomes a more important predictor of variations in the level of supportiveness S. Additionally

we have a fourth factor which loads moderately in a positive direction on

Management Involvement in School, Egalitarianism in School, Questioning

Authority in School and loads moderately in a negative direction on Emotional

Suppression in School. This fourth factor thus appears to indicate that certain

aspects of the educational sub-systemic environment contribute independently

to supportiveness S. However this factor needs to be treated with caution as it

does not appear to be a stable factor that will robustly appear with subsequent

replications and iterations. Only one factor loading is above a value of 0.5

and four lie in the range 0.4 to 0.5. Overall and Klett (1972) suggest

that loadings in the region of 0.4 to 0.5 need to be treated with care. The

amount which this residual factor constributes to an explanation of the

variance of supportiveness S is also low - only 9.2%. For this reason, it

was decided to use as measures of supportiveness S three empirical measures:

Interpersonal Hindrance, Work Concern and Affiliative Mutual Openness Concern.

9.4: The Development of Measures of Environmental Characteristics

In chapter 8 we argued that conceptually environments were more

satisfactorily conceived as objective influences and forces which create

and constrain systemic action, forces which exist independent of subjective

interpretation and enactment on the part of actors. It is not denied that

subjective enactment of environments will substantially influence individual

and systemic behaviour but such perceptions do not render the environment

a "mythical entity". Ontologically therefore we conceive environments as

having an existence which is independent of participant perceptions; however,

such perceptions are believed to significantly influence participant and

systemic behaviour. Methodologically we argued that environments may be

described via three major attributes - complexity E, illiberality E and

variability E. Empirically, however, we found the measurement of these

abstract characteristics highly problematic.

During informal interviews with learners no mention was made by them of the notion of environmental complexity influencing their behaviour and that of the training system as a whole. Apart from a brief acknowledgement of the power of the General Nursing Council in determining their context of learning and the existence of nursing trade unions, learners often claimed that they knew little of "important external factors". The role of the state, the changing requirements and demands of patients and the community and the impact of E.E.C. regulations upon their training did not appear as important elements in their characterization of the nurse training environment.

However, there was one element of the environment which constantly crept up in learner discussions - varying levels of resource scarcity. Documented evidence of the importance and influence of resource scarcity is already given in the summary of learner interviews given in Appendix 6.1. To summarize, a reported inability to recruit sufficient day and night nursing staff led to learners perceiving themselves as being treated more as "a pair of hands" than nurse learners, work stress (especially on night duty), role conflict and role ambiguity. These consequences were, however, felt to be highly dependent on the ward and shift worked. In short, the scarcity of trained nursing staff varied considerably between wards and shifts thus leading to varying perceptions of the level of scarcity of trained ward staff within the Area Nurse Training system. Ward observations carried out subsequent to the design of the questionnaire substantiated this reported evidence from learners; there were wide variations in day staffing levels and workload on a particular ward, such levels depending on the ward speciality and work shift. Nevertheless it was observed that especially on night shifts there was often insufficient trained staff on duty. In addition, certain groups of learners commented on the lack of planning ability on the part of ward and school staff. Ward planning was felt to be highly inefficient at times as much work was rushed through in the morning and afternoons tended to be slack. Given these comments, it was therefore decided to devise a measure of

planning ability of ward and school staff as a surrogate measure for environmental illiberality; the argument being that the environment was hostile in that the system was unable to recruit staff with efficient planning abilities. Where learners perceived a high level of efficient planning of time on the part of ward or School staff, this was taken to indicate a level of environmental liberality, as the system was arguably able to recruit "good quality" staff. This association of learner perception of the efficiency of staff planning time as a measure of illiberality [E] and of resource scarcity is admittedly weak theoretically but is nevertheless felt to be defensible. An objection that learner perceptions of their superior's efficiency of time planning may not be an accurate reflection of their "true" efficiency may be answered by

(a) the argument that such perceptions are more likely than "actual" (however, one may determine this) measures of efficient time planning and measures of illiberality [E] to influence individual and systemic behaviour, and

(b) by the corroboration of this perception by independent ward observations and subsequent interviews with ward and School management.

A final item designed as a surrogate measure of illiberality [E] was derived from the comments of learners that despite the scarcity of numbers of teaching staff and the lack of ward teaching, the quality of the teaching received was felt to be of a satisfactory standard. Resource scarcity now had a different aspect - quality as well as quantity. Although the environment could be characterized as hostile in its lack of sufficient numbers of teaching and nursing staff, learners perceived that the few teachers whom the nurse training system possessed did give them a satisfactory level of training. In order to capture this qualitative aspect of illiberality [E] it was decided to add an item asking learners to rate the quality of the teaching that was given to them.

In all, five measures were used to measure different aspects of resource

scarcity within the Area Nurse Training system. Resource scarcity was hypothesized to be a measure of environmental illiberality and hostility. These five measures, all measures subjectively via learner perceptions, are as shown below in Table 9.8 · with their appropriate reliability coefficients; all of which were regarded as acceptable. The variables PAWS and PASS have been scored negatively and thus in fact refer to planning inability rather than ability.

	Measure	Mnemonic	Source	Cronbach's Alpha
1.	Scarcity of Nursing Staff at Ward Level	RSNS	A8	-
2.	Scarcity of Teaching Staff	RSS	A2, A4	0.61
3.	Planning Inability of Ward Staff	PAWS	A3, A7	0.45
4.	Planning Inability of School Staff	PASS	A7	-
5.	Quality of Teaching	QUALTEA	A11. A13	0.54

Table 9.8: Measures of Illiberality [E]

However, these measures of illiberality [E] are based entirely on learner perceptions. Ideally the empirical model set out in chapter 8 should be tested by obtaining direct measures of environmental characteristics via the subjective perceptions of all participant groups including ward and School management and via "objective" independent measures such as the number of changes in the profession, the amount and rate of change in patient demands etc. Also we have only been able to obtain measures amenable to statistical analysis on only one of our conceptualized characteristics of environments - illiberality.

It was highly unfortunate that at the time of the construction of the questionnaire access was not gained to large sections of the educational and

service managerial levels. Due to the basis on which the researchers were admitted - to investigate learner selection and wastage, large-scale interviewing of management was felt by them to be time-wasting and inconvenient. In addition they could not see the logic of the line of questioning. In order not to upset these initial relationships with management it was decided not to conduct any large-scale detailed questionnairing of managerial staff. As access to learners was relatively easier to obtain the researchers decided to concentrate on learner perceptions of the environment but to cross-check these perceptions whenever possible. Mention has already been made, where appropriate, of cross-checking via subsequent ward observations. Cross-checking of the validity of the five measures of illiberality ^{E} was also obtained via limited managerial interviewing.

Given these limitations with our 5 questionnaire measures of illiberality^E it was decided to conduct an additional independent analysis of the environment of the Area Nurse Training sytem : the expectations of potential nursing recruits about nursing and nurse training. We made this decision on several grounds. Firstly, it enabled the study of a vital part of the environment of the system in a manner which was not dependent on participant perceptions. Secondly, the model set out in chapter 8 had outlined learner expectations as an important variable in explaining O.E. Thirdly, this analysis would enable a deeper understanding of the entire process of nurse recruitment.

Contact was made with the local education authority in November 1980 and two secondary schools were selected. One was Carter Lodge School, a medium-sized comprehensive school in the northern part of Mayfield with school children drawn essentially from a nearby council housing estate. The second was Silverdale School, a large comprehensive school in the southern part of Mayfield with schoolchildren drawn from a catchment area of "professional-class" and "middle-class" private housing.

The following groups of students were seen:

Carter Lodge School

1 group of "O" level children (n = 30)

1 group of "A" level school children (n = 28)

Silverdale School

1 group of "O" level children drawn from the "top band" of

the school (n = 28)

1 group of "O" level children drawn from the "bottom band"

of the school (n = 32)

No "A" level children were seen due to difficulty of access.

This gave a total sample size of 119 children. Of these their composition

was as follows:

Carter Lodge School	Male	Female	Total
"O" Level children	15	15	30
"A" Level children	13	15	28
			58
Silverdale School			
"O" Level children	21	40	61
			119

The interviewing of these children was done in small groups of fifteen

to twenty and was performed in an informal manner. This usually took twenty

minutes during which the researcher explained her interest in their career

intentions and their views towards nursing. The children were then asked to

fill in a questionnaire which is shown in Appendix 9.2. This took between

ten and twenty minutes depending on the academic abilities of the children.

The crucial questions for analysis were questions 7, 8, 9 and 10. These

questions sought to (a) arrive at the images which these children had of

nursing and (b) the desirability of working as a nurse. These answers were

then correlated with the educational aspirations of the children to see the

relationships between images of nursing, the desirability of nursing as a career and educational aspirations. Class as a variable was analysed indirectly by looking at the differences between responses from the two schools. The results of this analysis of the environment of recruits will be discussed in the next chapter.

We have now concluded a discussion of our operationalization of measures of environmental characteristics. We were only able to measure illiberality E via learner perceptions of resource scarcity and school children's cognitive images of nursing. No qualitative and quantitative measures of complexity E or variability E were available. Only measures of illiberality E which depended on learner perceptions were used in subsequent statistical analysis. This summary of our operationalization of the environment reveals a major weakness in the empirical testing of the model outlined in chapter 8.

Clearly, our measures of environmental states are inadequate as no measures of complexity E and variability E were available. Neither were independent counts or "objective" measures of illiberality E developed and used in subsequent statistical analysis; all statistical testing used subjective perceptual measures of illiberality E. Thus our ontological conception of objective environmental states was not operationalized within the technical interest into empirical measures and tested via statistical means. Hence the results to be presented and discussed in the next two chapters can be regarded as partial at best and by no means a definitive test of a weak statement of Ashby's Law of Requisite Variety: the original purpose of this section of the thesis.

9.5 The Development of Measures of Intervening Variables of Critical

Psychological States and Personal Characteristics

In chapter 8 we outlined four variables under the heading of critical psychological states. These four were participant satisfaction, participant commitment to the coalition, role ambiguity and role conflict.

We modified Warr et al's (1979) original scale of job satisfaction and developed a scale of sixteen items. Each item covered a different aspect of the job ranging from physical working conditions to job responsibility, autonomy, to relationships with superiors and subordinates. The details of this scale are given below:

Measure	Mnemonic	Source	Cronbach's Alpha
Job satisfaction of learner	JOBSAT	D1, D2, D3, D4	0.76
		D5, D6, D13, D16	
		D18, D20, D22, D24	
		D25, D26, D27, D28	

The mean corrected item-total correlation was 0.35

In addition to this measure of job satisfaction it was further decided to construct a measure of the learners' satisfaction with her training. The details of the scale are given below:

Measure	Mnemonic	Source	Cronbach's Alpha
Training Satisfaction of Learner	TRAISAT	D7, D8, D9, D10	0.64
		D11, D12, D14,	
		D17, D19, D21,	
		D29	

The mean corrected item-total correlation was 0.30.

Though the Cronbach's Alpha and the mean corrected item-total correlation was relatively lower than the scale for job satisfaction, these statistics were still acceptable and fell well within the limits set for our present study.

The second critical psychological state chosen for analysis is the concept of participant commitment which was defined as reflecting a strong belief in the values of the micro-organization, a willingness to exert considerable effort on behalf of the organization and a definite desire to maintain organizational membership. For learners it was felt that there were

two conceptually distinct forms of commitment - (a) to nursing as a

worthwhile occupation, career and "profession" and (b) to nurse training as a

desired form of occupation.

The scale called Learner Commitment to Nursing as an Occupation was

compiled from twenty-one items which originated from the study of Taves,

Corwin and Haas (1963) and which were subsequently used by Ondrack (1975).

However, neither study provided psychometric data on the scale. Our data

on this is provided below:

Measure	Mnemonic	Source	Cronbach's Alpha
Learner Commitment	NCO	A36, A37, A39, A41, A45,	0.59
to Nursing as an		A49, A54, A58, A61	
Occupation		A62, A65, A73, A76	
		A77, A81, A82, A83	
		A84, A85, A86, A87	

The scale called Learner Commitment to Nurse Training was compiled from a

variety of sources. Items were selected from those used by Porter et al

(see Mowday, Steers and Porter, 1979), Birch (1975) and Clark (1975).

The final scale consisted of nine items as shown below:

Measure	Mnemonic	Source	Cronbach's Alpha
Learner Commitment	NTCO	A40, A42, A44,	0.58
to Nurse Training		A46, A50, A53,	
		A88, B3, B8	

The scale was felt to be reasonably internally consistent.

Role ambiguity is our third intervening variable. It was decided

that a single-item measure of role ambiguity as experienced within the

educational sub-system be designed, together with a two-item measure of the

degree of role ambiguity designed within the service sub-system. The details

are as follows:

Measure	Mnemonic	Source	Cronbach's Alpha
Role Ambiguity			
in educational sub-system	RAS	A29	-
Role ambiguity in service			
sub-system	RAWA	A26,	0.56
		A31	

The scales for role conflict were again derived from the measures of
Kahn et al (1964), Rizzo, House and Litzman (1970) and Angle and Perry (1981).
Two items were used to capture the issues learners raised in their group
interviews as causing role conflict in their work-worlds. Two
substantive issues had been raised: the conflict of being a learner and
a responsible nurse who was paid from public sources of finance; and the
conflict between the emphasis on individualized patient care and the mass
"processing" of both patient and nurse learners.

These two areas of role conflict were dealt with in our two-item scale
of Role Conflict. The details are as follows:

Measure	Mnemonic	Source	Cronbach's Alpha
Role conflict	RC	A27, A30	0.61

It was not found necessary to measure role conflict within each sub-system
as it was often the different role expectations between the two sub-systems
that generated learner perceived role conflict.

PERSONAL CHARACTERISTICS

The personal characteristics of participants were also felt to be important influences on participant satisfaction and on O.E. per se. Four personal characteristics were analysed. These are discussed below:

1. Tenure (YEAR)

Tenure (Mnemonic: YEAR) has long been shown to have an effect on leaving and absenteeism behaviour. This was measured as the number of years of participation in the training system and essentially learners were asked to state their year of training.

2. Type of Course (COURSE)

Previous research had shown that the type of course undertaken by a learner resulted in different patterns of withdrawal behaviour (no work has been done on productive behaviour) and the work of Clarke (1975), Birch (1975) and Redfern (1978) indicate that usually the higher the grade of learner/nurse the less the incidence of withdrawal behaviour.

3. Perceived Alternative Employment Opportunities (PERAEO)

This was felt to be an important personal characteristic to measure in view of the inducement - contribution basis of the contingency theory set out in chapter 8. This was measured by a dichotomous item asking learners whether they perceived themselves as following another career besides nursing. The answer yes was coded 1 and the answer no as 0. The source of this item was question B13.

4. Positive Conformity to Expectations (CE)

This was measured by asking learners whether nursing had been better or worse than they had expected. This question was measured on a five-point (1 to 5) Likert-type scale and formed question B9 on the primary questionnaire.

Further information on learner expectations is found in the qualitative answers of the sub-sample A of 122 learners. This sample was administered a series of incomplete sentences on the first day of their training which sought

to tap their extant images and expectations of nursing and nurse training.
This series of incomplete sentences is contained in Appendix 9.5. This
questionnaire grew out of the early series of group interviews with learners
already in training. An earlier version of the questionnaire is that
found in Appendix 9.6.

The questionnaire contained in Appendix 9.6 was administered to a sample
of learners who were already in training during December 1979 to
February 1980. This sub-sample B consisted of learners from the following
groups:

Year of Training			Number of Learners
First	October 1979	(S.R.N.)	25
Second	January 1978	(S.E.N.)	17
Second	October 1978	(S.E.N.)	5
Second	May 1978	(S.E.N.)	22
Third	February 1978	(S.R.N.)	21
		Total	90

Both sets of questionnaires (9.5 and 9.6) seek to tap expectations on
a wide series of issues. Section A was intended to discover the motivation
for choosing nursing as an occupation and the image a person had of it.
Section B attempted to draw out images of the sub-systems within the Training
System as a whole and asked about expectations of the educational sub-system
and of working within the service sub-system. Section C sought to analyse
the expectations which learners had of significant participant groups such
as tutors, sister, patients and doctors. Section D was to analyse expectations
about extrinsic factors of learners' working environment such as pay, night
duty, hours of working and studying. Section E was to draw out a learner's
expectations of an ideal/good tutor and nurse.

As can be seen, Sections A and E were designed primarily to draw out descriptions of what effective nursing meant to learners who after all, would be society's future nurses. Sections B to D were intended to discover expectations of the system being studied and progressed from a lower resolution level of analysis to a higher one with two detailed aspects of a learner's participation being analysed: his/her expected relationships with other focal participant groups and his/her expectations on the terms of participation and exchange.

In addition Appendix 9.4 helps to obtain biographical information from the learner but this was administered to only 1980 cohorts.

9.6 The Use of Personality Assessment as Measures of Personal Characteristics

A selection of personal characteristics was made after a review of the literature and with regard to the formal model of system-environment relationships outlined in chapter 8. The review showed that personality tests of a wide variety (for a review see Lewis and Cooper, 1975) had been used in devising appropriate selection packages and in attempting to discover the "good" nurse, the nurse who would not "waste". These personality tests reflected different psychological traditions, methodology and epistemology.

In this chapter we are concerned with a theory and measures of personality which are consistent with a theory of organizational and individual behaviour framed at the technical and hermeneutical levels of interest. The guiding purpose of theory is thus the explanation, prediction and administration of organizations such that they survive in the long-run. Given these parameters it was decided to use measures of personality that were both technical, i.e. psychometric and idiographic. Unfortunately the idiographic personality test used: the Thematic Apperception Test has not been analysed by the researchers due to a lack of resources. Hence, only psychometric measures of certain aspects of personality are available. The two psychometric personality tests used were the:

(a) Eysenck's Personality Inventory; this sets out to measure two major

dimensions of personality, extraversion and neuroticism. (Eysenck, 1964). (Mnemonic, EP1) and

(b) Taylor Manifest Anxiety Scale; this sets out to measure the level of internal anxiety or emotionality via a series of items describing what are hypothesized to be overt or manifest symptoms of this inner state. (Taylor, 1953). (Mnemonic, TAS)

The choice and use of these two personality tests was based on the argument that they reflected and were consistent with a functionalist epistemology. Their underlying assumptions on the importance of quantified measurement and a hypothetico-deductive method to the study of human behaviour clearly place them in the more positivist quadrant of the Burrell and Morgan typology. Equally clearly, however, Eysenck's particular definition of personality is inconsistent with our concepts of holism in that he does not study personality holistically and instead has a "ratomorphic", fragmented picture of "The Person". His whole-hearted belief in the virtues of factor analysis and his complete disdain of idiographic methods of personality assessment is a characteristic peculiar only to himself and is not shared necessarily by other psychometrists. Allport, for example, whilst valuing the nomothetic approach sees it as inadequate by itself - it must be supplemented by idiographic understanding of the unique organization of each individual person. At the other extreme, the Skinnerians dispose of any notion of dispositions and are concerned simply to study the ways human beings build up their responses to stimuli. In other words, the psychometrists may share common underlying assumptions but they work on different variations of the same theme. Thus, our use of these two psychometric measures reflect an identification of an epistemology and method but not a theory. Our use of the TAS does not mean that we agree with the Hullian theory of anxiety as a drive or with the Iowa theory that anxiety is a stable, general characteristic. The test was chosen because it accorded with the functionalist

tenets of realism, determinism, positivism and nomothetic methodology (see Burrell and Morgan, 1979). Neither do we share Eysenck's single-minded use of factor analysis; within a technical and hermeneutical theory of O.E. idiographic measures of personality are certainly in order. Our position of the choice of these two psychometric measures is thus:

    (a) they are consistent with a technical-interested theory of O.E.;

    (b) they are measures of public expression on certain types of behaviour; such measures being descriptions of behaviour rather than reified measures of stable, broad personality traits;

    (c) they are partial explanations and determinants of behaviour. Thus as chapter 8 shows personal characteristics are but intervening variable in a larger, more complex model of system-environment relationships. Unlike the orthodox psychometrist, we see behaviour as an outcome of situational interactions between the system and its environment, whether that system is a person or a personal holon or a social holon. Additionally, we do not hold forth that these tests measure general traits which are of interest per. se. Instead we seek to relate the incidence of such characteristics with observable behaviour or other observable consequences. Our aim is thus not to develop a theory of personality (we would most certainly fail) but to explain variances in behaviour and attitudes and O.E.; and

    (d) they are relevant as partial explanations. That is, personality tests of the type used are not totally useless. Interpreted cautiously they could prevent over-generalization and stimulate more encompassing theories of organizational behaviour which take into account the individual and his contribution to organizational outcomes.

Finally, there were secondary reasons for the choice of these particular tests. Given the current controversy in trait theory, it was decided to use the EPI as considerable empirical work had been conducted with it (Vernon, 1963)

and one could more readily assess the empirical and construct validity of the
test. Secondly the work of Cattell appeared more scientistic than Eysenck's
and his work has not been as systematically reviewed. Rather, the reaction of
most psychologists to Cattell's work appears to be one of incredulity regarding
the possibility of expressing all aspects of personality in factorial terms
and bewilderment regarding the huge number of factors he claims to have
isolated. Thirdly, we had particularly wanted to measure anxiety, this
being generally defined, following Freud, as:

> "A specific state of unpleasure accompanied by motor discharges along
> definite pathways...a signal of danger...symptoms are created in order
> to remove...the situation of danger....Anxiety would be the fundamental
> phenomenon and central problem of neurosis." (Freud, 1936)

Anxiety was felt to be an important psychological phenomenon because it
had been observed to influence learner behaviour, especially on the wards and
it had often been mentioned by learners, teachers, ward staff and patients.
The profession, as a whole had also discussed the consequences and
prevalence of anxiety. For example the Briggs Committee (1972) had recorded
the following:

> "We have been struck by the power of the pressures on the trainee
> nurse and some wastage is easy to understand given the highly
> demanding work and the profound and often unpredictable stresses
> associated with it.
>
> "The changing nature of medical care has added to the strain imposed
> on nursing and midwifery staff - anxiety about errors in medicine
> dosage, fears of machinery the constant tension in intensive care
> units, the ethical problems of abortion, transplantation and
> resuscitation, uncertainty over rapid decisions to be made in times
> of crisis, the care of an increasing number of patients with mental
> disorders. This last aspect alone places a burden on general
> nurses for which at the moment they often have not been trained.
> The majority of attempted suicide cases are initially dealt with in
> general hospitals. Other aspects of nursing care making particular
> demands upon nursing staff are the treatment of drug addiction, care
> of the old and demented patients, care of the young chronic sick and
> terminal care." (Paragraph 581).

Theoretically, research has shown that anxiety plays a major role in
hospital and nurse education. As early as 1964 Revans pointed out that -

"Hospitals are institutions cradled in anxiety."

and that this influenced the absence and turnover behaviour of nurses.

Menzies' (1970) classic study argued that a high level of tension, distress

and anxiety defined in a neo-Freudian manner was associated with nurse

turnover, short-spell sickness and crisis management. She argued that acute

anxiety led to:

(1) the splitting up of the nurse/patient relationship;

(2) the depersonalization, categorization and denial of the significance

of the individual;

(3) forced detachment and a denial of feelings;

(4) the attempt to eliminate decisions by ritual task performance;

(5) a collusive social re-distribution of responsibility and

irresponsibility;

(6) idealization and an underestimation of personal development

possibilities; and

(7) an avoidance of change.

These kinds of behaviour were argued to be outward manifestations of defence

mechanisms that were rooted in inner feelings of anxiety and guilt.

A recent study by Birch (1978) further underlines the prevalence of

anxiety and stress in the general nurse education and training system. Using

a variety of psychometric and idiographic-based measures of anxiety, Birch

argued that nurse learners experience high levels of anxiety which are not

alleviated by prevailing systems of training. Indeed, he argues that the

current system of general nurse education positively contributes to anxiety

feelings by failing to prepare learners adequately for the psychological stress

inherent in nursing sick and ill patients. However, Birch did not study the

behavioural consequences of such anxiety. Neither did he begin from a theory

of the effective functioning of a nurse training system. He set out only to

study the prevalence of anxiety, the kinds of anxiety-provoking situations

and the implications for curriculum change in general nurse education.

Given these pieces of research on the role of anxiety it was decided to specifically include tests which attempted to measure anxiety and to see the correlation between these measures and our technical measures of O.E.

The third personality construct used was an adapted scale called the Learners' Preference for Bureaucracy (Mnemonic : LPB) and it attempted to measure the learner's bureaucratic orientation. This construct is discussed somewhat separately from the EPI and TAS because its psychometric properties have not been tested to the same degree as the other two tests. In addition, the author of the scale has not made explicit the personality theory to which he subscribes. Nevertheless, it was felt that the construct was of potential value as an explanation of individual and systemic behaviour.

The scale is described by Gordon (1970) as a personality construct called "bureaucratic orientation" and is defined as the commitment to a set of attitudes, values and behaviours that are characteristically fostered and rewarded in a bureaucratic type of organization. Gordon adopts Weber's (1946) classic definition of a bureaucracy. Thus a participant who is bureaucratically inclined displays the following five characteristics: self-subordination, compartmentalization, impersonalization, rule conformity and traditionalism.

In addition to conducting statistical tests of validity and reliability, Gordon (1970) reported results from a study in which the personality construct was used to differentiate between "stayers" and "leavers". The site was the Boston College and the sample consisted of an entire class of 172 Air Force ROTC cadets in the first year of their two-year programme. At the end of the first year seventy-seven cadets or 44.7% of the class had resigned or elected not to continue. These leavers demonstrated a mean WEPS score of 33.1 which was statistically different from the mean WEPS score of 38.3 of the stayers. A biserial correlation of the predictive validity of the WEPS against the dichotomous withdrawal criterion was significant at $p \leqslant 0.01$ and registered at 0.44.

Given this potential linkage between this construct of bureaucratic orientation and measures of O.E. it was decided to adapt the WEPS for use among learners. A shortened list of twenty-four as opposed to thirty items was used and a five-point scale was adapted.* The WEPS was renamed the Learner's Preference for Bureaucracy (LPB) and the scale is shown as Section E in the primary Nursing Questionnaire.

Table 9.9 : Reliability Coeffients for all Three Personality Coefficients

Variable	Mnemonic	Source	Test-Retest	Split-Half (Spearman-Brown)
Extraversion	E34	EP1	0.88	0.86
(			0.94	
Neuroticism	E35	EPI	0.84	0.90
			0.92	

Note: these statistics were obtained from Eysenck (1964). The test-retest coefficients were from a sample of ninety-two and a sample of twenty-seven. The Spearman-Brown coefficients were obtained from a sample of two thousand "normal" persons.

Variable	Mnemonic	Source	Test-Retest
Taylor Manifest Anxiety Scale	E33	TAS	0.88

Note: This statistic was obtained from Taylor (1953). The test-retest coefficient was from a sample of 179 individuals.

Variable	Mnemonic	Source	Cronbach's Alpha	Standardized Alpha
Learner Preference for Bureaucracy	LPB	WEPS Section E	0.91**	0.81
			0.81	0.81

* This makes comparison with Gordon's data slightly problematic as he used a three-point scale. However, a five-point scale was more consistent with the scoring system on the rest of the Likert-type scale measures used in the present study.

** This statistic was reported by Gordon (1970) for each of two samples

— Peace Corp Volunteers and high school counsellors.