OPERATIONALISING THE SOCIAL SYSTEMS PARADIGM: A CASE STUDY DISCUSSION OF A PERFORMANCE APPRAISAL INTERVENTION

by

ELANA SHULAMITH GODLEY

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SUPERVISOR: PROF J FLOWERS

JANUARY 1994
I declare that OPERATIONALISING THE SOCIAL SYSTEMS PARADIGM: A CASE STUDY DISCUSSION OF A PERFORMANCE APPRAISAL INTERVENTION is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.
This is a conceptual dissertation which addresses itself to the criticism that the social systems framework is highly abstract and theoretical, and as such relevant only to academics and specialists.

The primary purpose of this paper is to operationalise the social system framework, to illustrate its application and to highlight its unique potential. It represents an attempt to enlarge, even redefine, the frameworks used for studying and transforming organisations.

In order to best highlight the differences between the social systems framework and other models implicit in traditional approaches, a specific component of organisation reality is focused on, namely the performance appraisal. After discussing and illustrating the models behind most research on the topic, an alternative holistic framework for performance appraisal is sketched. Following this, an actual performance improvement intervention is described in a case study. This provides a practical illustration of the points made in the paper.
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This thesis is a testimony to the support of my family. I thank them sincerely for their unwavering commitment which has enabled me to achieve this and many other goals.

In particular I want to thank my husband for his active support and encouragement, it was his belief in me that constantly spurred me forward. Thanks too to my precious son.

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CONCLUSION

The need for future research

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SUMMARY

This is a conceptual dissertation which addresses itself to the criticism that the social systems framework is highly abstract and theoretical, and as such relevant only to academics and specialists.

The primary purpose of this paper is to operationalise the social system framework, to illustrate its application and to highlight its unique potential. It represents an attempt to enlarge, even redefine, the frameworks used for studying and transforming organisations.

In order to best highlight the differences between the social systems framework and other models implicit in traditional approaches, a specific component of organisation reality is focused on, namely the performance appraisal. After discussing and illustrating the models behind most research on the topic, an alternative holistic framework for performance appraisal is sketched. Following this, an actual performance improvement intervention is described in a case study. This provides a practical illustration of the points made in the paper.
CHAPTER 1

INTRODUCTION

The Need for the Study

Rapid pace, constant change, and ever increasing complexity define the modern business environment. In order to meet these twentieth century demands and thrive within them, organisations have been forced to move beyond the confines of traditional business conventions (Duck, 1993; Koopman, 1990; Peters, 1989). In South Africa this is especially true.

As the country proceeds down the path of change the internal and external demands being made on organisations has reached unprecedented levels. The country is characterised by a complex, unpredictable, and volatile social and political milieu as well as a struggling overburdened economy. And it is within this context that most large organisations are being held accountable not only for economic but also for social prosperity. The reality is that the leadership of big business is being called upon to find viable solutions which satisfy the needs of all stakeholders; that is the people within the organisations, as well as those in contact with them, and the users of their outputs. The challenge is large and the stakes for success are high, and as such there is a pressing need for a organisational change framework capable of generating options to leadership and stakeholders who are strapped for creative and viable solutions.

Within this context social scientists and organisational development specialists have come under increasing pressure to provide help. New age tools and models are required (Duck, 1993).
These technologies should make it possible to debate, plan and execute the organisational changes being demanded without overly simplifying the issues, while also taking into account the reality of a diverse array of stakeholders with differing and even conflicting priorities and needs (Ackoff, 1988; Peters, 1989; Senge, 1990). This study represents a response to these needs. The social system paradigm is described as the conceptual framework capable of delivering what is required.

This study describes the fundamental philosophical tenets of the social system paradigm and illustrates the use of a contingency model (Nadler & Tushman, 1987) as a framework for orchestrating organisational change according to the needs as outlined in the paragraph above. The case study reports a real intervention where an organisation involved multiple stakeholders in planning and executing necessary changes which originated from business requirements, but were resolved and implemented within a framework which allowed the organisation to address the needs and often conflicting priorities of all stakeholders who were to be impacted upon.

The Purpose of the Study

For modern organisations survival and success have come to be synonymous with flexibility and the ability to change timeously and appropriately in the face of internal and external demands (Senge, 1990). This is a difficult task, and the complexities, problems and even failures of relevant, real, and sustainable large-scale organisational change is a popular topic in current business and academic literature (Beer, 1980; Mohrman et al. 1989).
This study reflects on the organisational literature of the past, and asserts that the high rate of failure in organisational interventions is as a result of the fact that much of the work being done in industry tends to be an extension of earlier more simplistic models of organisational functioning (Gharajedaghi & Ackoff, 1984). The emphasis is often placed on technical and structural change within a single loop cause-effect relationship (Senge, 1990). There has not been enough attention given to interdependencies, feedback loops as well as the need for congruence and the integration of all organisational components both human and non-human (Mohrman et al. 1989). A primary reason for this appears to be that most change practitioners have not been able to convert to practical application the current thinking in academic and literary circles. The literature widely quotes holistic open systems as a paradigm capable of delivering what is required, yet the debate has remained largely academic within the province of a small cadre of experts (Senge, 1990).

The primary purpose of this study is to demonstrate the operationalisation of the social systems paradigm, and to describe a practical intervention using a social systems model. The intervention that is described in the case study relates to the implementation of a performance appraisal system in the computer division of a large South African financial services organisation. The Nadler-Tushman (1977) congruence model forms the basis of the organisational diagnosis. Since it is a contingency model the major diagnosis involves assessing congruence and understanding relationships between and among transformational components of the system. By being more concrete this study hopes to open debate and encourage experimentation with the largely abstract social systems paradigm, and to encourage more social scientists and organisational development specialists to adopt a more holistic and integrative approach to organisational interventions.
Scope of the Study

This is a conceptual rather than an empirical study. The operationalisation of the paradigm is described in a case study. The case study focuses on a specific intervention in order to present the argument more clearly and to allow the discussion to become more concrete and thus practical. It does not purport to reflect causal relationships, or evaluate the overall effectiveness of the changes outside of the attitudes and feedback reported in the intervention.

Since the performance appraisal system and processes impact on every aspect of an organisation, they represent an ideal intervention to illustrate the arguments of this paper. The performance appraisal system reflects the concrete aspects of an organisation's functioning, structure, span of control, task definition and other formal systems such as reward and recognition, while the processes reflect the less tangible realities describing the culture and indicating the power and legitimacy arrangements. In this study the complexity dimension is narrowed to reflect only those organisational relationships and functions as they impacted on the performance appraisal structure and processes.

Structure of this Dissertation

This study is based on the social systems model of organisations. Chapter 2 develops and defines this model and its encompassing theory. It traces the evolution of the conceptual framework highlighting major influences, defining and developing the theory from its conceptual roots to its current status. The social systems model is explained and it is presented as the foundation for discussions in this dissertation.
In Chapter 3 the performance appraisal literature is reviewed and used as an example to illustrate the lack of application of the social systems framework and its theoretical tenets. The primary themes related to ensuring the successful implementation of a performance appraisal system are extracted, while the underlying closed or simple system rationale of the authors is exposed.

Chapter 4 addresses the lack of application of the social systems paradigm more directly and outlines the considerations for implementing a performance appraisal intervention within a social systems framework. The problems of complexity and abstraction inherent in the social systems model are discussed and using the Nadler-Tushman (1980) model, a practical yet holistic open social system intervention is outlined.

In order to link and demonstrate the issues discussed in the previous chapters an actual organisational change intervention is described in Chapter 5. This chapter is a case study illustrating the operationalisation of a performance appraisal system within a social systems paradigm. By discussing a practical case study and assessing work done against the criteria of holistic, integrated, systemic change as detailed in Chapters 2 and 4, it is hoped that the study will move from an academic and theoretical base into a domain more accessible to organisational development practitioners.

Chapter 6 summarises and reiterates the central issues contained in this study. It also highlights limitations and discusses the need for further research in this field.
This study is conceptual, its purpose is to prompt further debate and empirical study, and produce ideas to enrich the work being done within organisational development, specifically in the area of change management. In view of the vital role organisations play in society, especially in South Africa, it is hoped that this study will contribute in drawing closer together academics and practitioners, integrating these two worlds and thereby encouraging a more scientific and legitimate approach to the work being done in industry.
CHAPTER 2

THE SOCIAL SYSTEMS APPROACH TO ORGANISATIONAL FUNCTIONING

Introduction

The concepts and principles of general systems theory provided the framework for most organisational thinking up until the nineties (Gharajedaghi Ackoff, 1984; Sirgy, 1988). According to Phillips, these concepts were revolutionary and unique, evolving organisational research to higher levels by providing researchers with the opportunity to build complex and dynamic models of organisational functioning (in Kast & Rosenzweig, 1972), models that were capable of taking into account the relationship between the organisation (system) and its environment (Cummings, 1980; Katz & Kahn, 1978; Lockett & Spear, 1980; Schein, 1970).

Yet the systems framework itself did not remained static. On an ongoing basis general system theory assumptions were challenged as to their relevance and applicability in the study of organisations. By the eighties organisations were seen to be unique systems and researchers became concerned as to the generalisability of traditional simple system properties to the understanding of organisational functioning (Cummings, 1980; Katz & Kahn, 1978).

The social systems paradigm defines current thinking as it relates to understanding organisational functioning within a general systems framework (Huse, 1980; Kilmann, 1989).
This paradigm represents a more complex view, binding the principles of simple systems, open systems and living systems together to form a new paradigm within which to study and explain organisational functioning (Mohrman et al, 1989; Nadler & Tushman, 1987).

The arguments within this study are developed out of the social systems model of organisations. This chapter develops and defines this model and its encompassing theory and traces the evolution of the conceptual framework highlighting major influences, defining and developing the theory from its conceptual roots to its current status.

Systems Theory

General systems theory refers to the paradigm used to study and describe organisational functioning where the organisation is seen as a complex system in dynamic interaction with its environment (Galbraith & Kazanjian, 1986; Hoffman, 1981; Mohrman, et al.,1989; Peters & Waterman, 1982).

The general systems paradigm is eclectic, drawn from many sources, and influenced significantly in its applicability to organisational functioning by the works of researchers at the Travistock Institute, Katz and Kahn, as well as Miller (Porras & Robertson, 1987; Schein, 1970; Trist,1981).

While the idea of a "system" as a scientific framework was not unique and could be traced back to the works of early philosophers such as Hegel and Aristotle; what was unique was the application of this perspective to a social system such as an organisation (Beer, 1980a; Huse, 1980; Kilmann, 1989).
The ideas from which the theory evolved were those of the early physical scientists such as Von Bertalanffy and others (Kast & Rosenzweig, 1972). Von Bertalanffy's definition is still accepted today: "A set of elements standing in interrelation among themselves and their environment" (Katz & Kahn, 1978). It was the first framework with a perspective broad enough to bridge the multiplicity of complex issues involved in the newly emerging, interdisciplinary field of organizational behaviour (Hoffman, 1981; Lundberg, 1984; Senge, 1990).

General systems theory provides the means to classify systems. This is done according to the way in which component parts or elements interrelate or are organised. Within this framework the interrelationships become the basis for the organisation's functioning (Cummings, 1984; Katz & Kahn, 1978; Porras and Robertson, 1987). Boulding (1968) identified different levels of systems ranging from very simple structures, to very complex structures including human and social systems. His classification is shown in Table 2.1.

The more complex the system the more open it is to modification and change by events or influences outside the system. Closed systems are by definition unaffected by their environments and include at a minimum, Boulding's levels 1 and 2. In contrast, open systems interact with their environments and generally correspond to Boulding's levels 3 or 4 and above (Pondy & Mitroff, 1979).
Table 2.1  

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<thead>
<tr>
<th>COMPLEX SYSTEMS</th>
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<tr>
<td>8. Social Organizations -</td>
<td>Collections of individuals acting in concert (e.g. human groups).</td>
</tr>
<tr>
<td>7. Symbol Processing Systems -</td>
<td>Systems conscious of themselves (e.g. humans).</td>
</tr>
<tr>
<td>6. Differentiated Systems -</td>
<td>Internal image systems with detailed awareness of the environment (e.g. animals).</td>
</tr>
<tr>
<td>5. Blue Printed Growth Systems-</td>
<td>Systems with a division of labour amongst cells (e.g. plants).</td>
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<tr>
<td>4. Open Systems -</td>
<td>Self-maintaining structures in which life differentiates itself from nonlife (e.g. cells).</td>
</tr>
<tr>
<td>3. Control Systems -</td>
<td>Cybernetic systems which maintain any given equilibrium within limits (e.g., thermostats).</td>
</tr>
<tr>
<td>2. Clockworks -</td>
<td>Simple dynamic systems with predetermined necessary motions (e.g. pulleys and levers).</td>
</tr>
<tr>
<td>1. Frameworks -</td>
<td>Static structures (e.g. employee rosters).</td>
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The Evolution of the Paradigm

Simple Scientific Systems

Earlier applications of systems constructs utilized the framework of the more simple closed systems of the physical sciences (Katz & Kahn, 1978; Schein, 1970). They dealt with organisations as if they were relatively self-contained structures which could be treated independently of external forces, and defined merely in terms of their internal functioning (Gharajedaghi & Ackoff, 1984; Katz & Kahn, 1978). This was the thinking which underpinned the classical or traditional schools of management. Their models tended to conceptualise the organisation as a machine.

Organisations were taken to be made up of passive parts that operated predictably and with regularity, dictated by internal structure and the causal laws of nature (Gharajedaghi & Ackoff, 1984). Their models assumed that the world could be completely understood, and that such understanding could be obtained by analysis of the parts (Kilmann, 1984).

In these mechanistic system models the organisation was seen as a bounded machine where output would not vary as long as input did not vary. Their models were highly inflexible and assumed organisational functioning could be understood as a static state (Mohrman et al., 1989). A mechanistically conceived social system was not seen to be different from any other machine (Gharajedaghi & Ackoff, 1984).
Much of the organisational interventions undertaken within this theoretical framework involved analysis of single variables without due regard for internal relationships and cause-effect dynamics (Gharajedaghi & Ackoff, 1984). As a result many interventions had limited effects in organisations, especially in their ability to achieve fundamental changes in the functioning of the organisation (Katz & Kahn, 1978; Schein, 1970).

**The Open System Concept**

The systems framework required expanding. Traditional rationalistic approaches taken purely from the physical science models were no longer appropriate for organisations (Katz & Kahn, 1978). More complex models had to be developed. External forces needed to be understood, particularly with respect to their effects on organisation's internal functioning (Bryant & Merker, 1987; Huse, 1980; Katz & Kahn, 1978; Schein, 1970).

It was the researchers at the Travistock Institute in London (1963) with their developments of the socio-technical system paradigm, together with the works of authors such as Katz and Kahn (1978), with their book "The Social Psychology of Organisations", as well as Miller's Living System theory (1972) which paved the way towards a solution. The ideas contained in these works laid the foundation for open system theorising (Gharajedaghi & Ackoff, 1984; Koontz, 1980a; Leap & Olivia, 1983; Schein, 1970). The salient ideas of these authors and their relationship to the open system paradigm are detailed below.
Influential Theories

Socio-technical approach.

The concept of socio-technical systems was originally developed at the Travistock Institute in London, during the 1950's by Trist and his co-workers (Huse, 1980; Schein, 1970; Trist, 1981).

The socio-technical approach focuses simultaneously on the technical and social systems within an organisation. It assumes that any productive organisation is a combination of technology (tasks, equipment, physical space, etc.) and social systems (formal or informal relationships among those who must do the tasks) (Katz & Kahn, 1978).

Its core premise is that the systems of technology and systems of people are inextricably bound, each determining the other. In keeping with this concept, it would make just as little sense to say that the nature of the work determines the type of organisation that develops among workers, as it would be to say that the socio-psychological characteristics of the workers determines the manner in which a given job will be performed (Trist, 1981).

The Hawthorne and Trist coal mining studies, inter alia, demonstrated these theoretical tenets (Schein, 1970, p193). These studies highlighted that in order to improve productivity and morale it was not enough merely to analyse the local "people" problems, an assumption made in closed system models.
Rather, they found that the technical systems, that is the way the work was organised and the methods and equipment in use, had a strong influence on productivity and the nature of the social systems in the organisation.

They observed that the personal attitudes and group behaviours of individuals being studied were being influenced by the technical systems in which these people were working. Thus the studies concluded that it would take an understanding of both the social and technical systems, and interventions of both technical and social natures, to solve the productivity problems in these organisations (Huse, 1980; Kilmann, 1989; Lawrence, 1989).

The socio-technical system models provided a revolutionary way of looking at the world of work (Weisbord, quoted in Schein, 1970, p 49).

The theory did much to develop the idea of organisations as complex, open systems characterised by many internal and external interrelationships. It also spawned many of the modern management practices such as: autonomous work groups, participative management, and the quality of work-life movement (Huse, 1980; Schein, 1970).

Its theoretical premises influenced management practice dramatically. It heightened awareness of organisational complexity by demonstrating that in order to remedy organisational problems it was necessary to take account of both the nature of the job (technical) and the nature of the people (social) (Cummings, 1980; Hoffman, 1981).
Katz and Kahn: Organisations as social systems.

Much of the theoretical contribution made by Katz and Kahn was in their recognition of organisation as social structures (1978; Schein, 1970). Their book details the anatomy and psychology of social organisation, as well as outlining the complexities and problems that are implicit in this framework. Their ideas pertaining to the properties which differentiate social systems from other systems did much to highlight the inadequacies of past thinking and push researchers forward to embrace the newer open system concepts (Huse, 1980; Schein, 1970).

Some of the salient properties which differentiate social systems and make them more complex and demanding to understand (Katz & Kahn, 1978) are detailed below.

Biological systems have physical boundedness that social systems lack. Biological structures are anchored in physical and physiological constancies, whereas social structures are not. Social structures are tied into the concrete world of human beings, material resources, physical plants and other artifacts; but these elements are not in any natural interaction with each other. In fact the social system has considerable independence of any particular physical part and can shed or replace it with ease. This is because a social system is a structuring of events or happenings rather than of physical parts. It therefore has no structuring apart from its functioning. There is no anatomy to social systems. When the biological organism ceases to function, the physical body is still present and its anatomy can be examined in a post-mortem analysis. When a social system ceases to function, there is no longer an identifiable structure (Huse, 1980; Katz & Kahn, 1978).
Social systems are largely intangible. As humans this conflicts with our simple way of conceptualising the world, thus, researchers, practitioners, and managers often identify the buildings, technological systems and people they contain as the structure of an organisation. However, although more tangible, these models are erroneous (Katz & Kahn, 1978).

Rather, Katz and Kahn (1978) provide the following model as a generic conceptualisation of organisations as social systems. According to their framework social systems have three basic recurring cycles: inputs, transformations and outputs (Cummings, 1985; Huse, 1980). Like any system they must be able to transform energy inputs into outputs.

![Diagram of social systems](image_url)

**FIGURE 2.1**
Generic Subsystems of a larger system (Huse, 1980, p57).
Those activities concerned with the transformation have been called production or technical subsystem (Huse, 1980, p.57). To ensure existence beyond a single cycle of productive activity, there must be new material to be worked on. Production-supportive structures provide a continuing source of production inputs (Huse, 1980). In addition, special attention must be given to maintenance inputs, that is, to ensuring the availability of the human energy that results in role performance.

If the system is to survive, maintenance substructures must be elaborated to hold the walls of the social maze in place (Katz & Kahn, 1978). These alone would not suffice. The organisation exists in a changing and demanding environment, and it must constantly adapt. Adaptive structures develop in organisations to generate appropriate responses to external conditions. Finally, these patterns of behaviour need to be coordinated, controlled, and directed if the complex substructures are to hold together as a unified system or organisation. Hence, managerial subsystems are an integral part of permanent elaborated social patterning of behaviour (Katz & Kahn, 1978).

The work of Katz and Kahn (1978) laid much of the foundations for understanding organisations as social systems, and what that meant in terms of differentiation from biological or scientific systems. Their ideas were an extension and expansion of the ideas of the pure science theorists, as well those of the socio-technical theorists (Huse & Cummings, 1985; Katz & Kahn, 1978).
Living systems theory.

Living systems theory is a general approach to describing and analysing concrete systems at various levels of complexity. It is based on the research done by Miller, and detailed in his 1978 book titled "Living Systems". Miller's contribution was to enhance the classification-related concepts emphasised by Boulding.

The invariant nature of Living Systems Theory makes it applicable to any type of organisation and enhances its utility as a general theory of business (Bryant & Merker, 1987). It eliminated the need to develop separate theoretical frameworks dependent on organisational type. Living systems are defined as open systems with both matter-energy (materials) and information inputs, throughputs, and outputs (Ashmos & Huber, 1987).

It is essentially a biologically based model (Bryant & Merker, 1987; Huse, 1980; Miller, 1978) and draws upon two major concepts:

1. All living systems contain a number of critical subsystems which must function if the system is to survive. Some of these subsystems process matter-energy, while others process information. A few will process both. The approach scrutinizes the relationships among various subsystems instead of proceeding as if each occurred in isolation. The resulting analysis takes into account factors which might reduce the effectiveness of attempts to manage complex modern organisations (Ruscoe, Fell & Hunt, 1985).
2. Living System Theory (LST) basically states that all living entities can be classified as a system at one of seven levels: cell, organ, organism, group, organisation, society, and supranational system. LST allows comparisons of structures and processes at different levels, and knowledge of systems behaviour at a given level can be generalised to other levels. This is particularly important when identifying general system pathologies and in identifying general strategies for correcting them (Ruscoe et al., 1985).

The central thesis of LST is that all internal processes are critical to any systems survival, and that an analysis of these processes in the system leads to a fuller understanding of the functioning of the system (Merker, 1985). Thus, a valuable benefit of applying LST is that it focuses on the processes of the system, rather than on global factors such as goal accomplishment, or on circumscribed factors such as individual productivity. The resulting examination of the organisation is more comprehensive than that provided in more traditional management approaches (Sirgy, 1988).

Merker (1985) argues that LST when applied to organisations provides a general theory of business, a framework within which survival objectives and their effects on the organisation can be more clearly understood.

From Merker's (1985) perspective, and extensive research, this theory makes an important contribution (Ruscoe et al., 1985) and takes the guesswork out of management by providing a map of an organisational system and clarifying the relationship of the organisation to its environments and to its components and sub-components (Cummings, 1980).
Following on from these kernel ideas the study of social organisation now moved into a new era of system thinking: the conceptualisation of organisations as open social systems. Initially, organisations conceived within this paradigm were understood in terms of organismic or biological models (Gharajedaghi & Ackoff, 1984; Katz & Kahn, 1980). Later the framework was refined to incorporate unique social system variables and the model became known as the social system model of organisational functioning.

Organismic (Open) Systems

Open systems theory, and the conception of organisations as biological systems, permitted increased breadth and addressed the historical problem of oversimplification; it opened new opportunities for research to explore (Ackoff, 1984; Bryant et al., 1987; Katz & Kahn, 1978; Schein, 1970; Senge, 1990).

This paradigm heralded the age of complexity in theorising. Flat claims of predictive power began to decrease as the growth of the field forced ever more variables into consciousness (Kilmann, 1984; Morhman et al., 1989; Perrow, 1973; Nadler & Tushman, 1987).

Organisations could be described and examined as a series of interrelated and interdependent subsystems. One could study the larger system or pick a smaller subsystem for analysis, while keeping the larger system in mind. This enabled ease of manipulation and facilitated the intensive investigation of departments, even specific groups or managerial behaviour without losing sight of the complexities of the total system (Huse & Cummings, 1985; Miller & Friesen, 1984; Mohrman et al., 1989).
Since open system theory placed such a large emphasis on the organisation-environment relationships, researchers turned their attention to the properties of the environment itself.

This paradigm offered the opportunity to move beyond principles of internal functioning and traditional conceptualisation of organisational boundaries (Hambrick & Finkelstein, 1987; Kilmann, 1984; Mitroff, 1987). The biological model provided a framework which did not consider environmental influences a source of error variance, but rather, integral to understanding the functioning of the system. This paradigm also allowed the integration of complexity with the principle of equifinality.

It allowed researchers to acknowledge that organisations are better served by the general principles characteristic of all open systems rather than single cause-effect theorising (Ashmos & Huber, 1987; Gharajedaghi & Ackoff, 1984; Kilmann, 1989; Senge, 1990).

A social system conceptualised as an organism has a survival purpose of its own, for which growth is taken to be essential. In a biologically conceived organisation, profit, is taken to be necessary for survival but not the sole purpose of survival. Profit is taken as the "means" while growth is the sought for "end result". Such a system is dependent on its environment for essential inputs (resources). Since the environment may change this system must be capable of learning and adapting in order to stay alive (Gharajedaghi & Ackoff, 1984). Organisations achieve this through dynamic homeostasis. They adjust the behaviour of their parts to maintain the properties of the whole within certain limits.
The structure of the organisation is modelled on that of a biological system (e.g. the body) (Gharajedaghi & Ackoff, 1984; Hoffman, 1981; Kast & Rosenzweig, 1972). Departments are thought of as organs, each with a distinct function, the performance of which contributes to the survival and growth of the whole. Individuals are regarded as cells whose function is to serve the organs and organism of which they are part (Gharajedaghi & Ackoff, 1984; Kilmann, 1989).

The executive management function is thought of as the brain of the system. It is linked to other parts of the system via a communications network through which it receives information from a variety of sensing organs (Marketing, Human Resources, Management Information Systems), and issues instructions to activate and deactivate different parts of the system (Gharajedaghi & Ackoff, 1984). Within this framework organisations are hierarchically organised.

Conformity and obedience of the parts is not taken to be essential, as long as they perform well, as they are managed by control of outputs rather than inputs. Organismic organisations exercise control by specifying desired outputs, leaving selection of the means to the parts (management by objectives) (Kanter, 1984; Kilmann, 1984; Peters and Waterman, 1982). The environment and outputs are constantly analysed to ensure the organisation is performing at the desired level.

Thus, the organisation engages in feedback control (cybernetics), a process which facilitates necessary learning and adaption (Hoffman, 1981; Sirgy, 1988).
Whilst this conceptualisation represented a move forward from the simple mechanistic models of the past, specifically in that it allowed for the integration of the environmental complexity of the modern world, as a paradigm for understanding and predicting organisational functioning it was problematic (Ashmos & Huber, 1987).

A basic difference between the social systems of organisations and the lower level systems, such as mechanical or biological systems, is in the area of structure - the arrangements of the parts, people, departments, and other subsystems within the organisation (Gharajedaghi & Ackoff, 1984; Katz & Kahn, 1980; Senge, 1990). An organism cannot change its structure more than a limited amount and still survive. In contrast a social system has almost complete control over its structure (Katz & Kahn, 1978).

The relationship which exists between an organism and its cells and organs is very different from that between an organisation and its parts. Each part of lower level systems usually has definite functions that do not change and are easily identified (Huse, 1980). A social system, on the other hand, is a structuring of events or happenings rather than of physical parts.

The parts of a social system have purposes of their own and display choice. Therefore, an effective social system requires agreement between the parts and the whole, and amongst the parts themselves. According to Allport (in Katz & Kahn, 1978), it requires consensus, an issue of complexity that no biological organism faces.
Another major area of difference between social systems and lower order systems is that social systems are contrived. People invent the complex pattern of behaviour we call social systems. The cement that holds them together is essentially psychological; they are anchored in the beliefs, attitudes, perceptions, motivations, habits, and expectations of human beings.

As human inventions social systems are imperfect; they can come apart at the seams overnight, but they can also outlast by centuries the biological organisms that created them (Kast & Rosenzweig, 1972; Katz & Kahn, 1978). Thus organisations as open systems are very special, and while they share many common open system properties, they also have properties all of their own. There are major differences between social and biological systems and it was the failure to recognise these which handicapped much of the social science interventions of the 70’s and 80’s (Katz & Kahn, 1978; Senge, 1990; Sirgy, 1988).

The Open Social Systems Paradigm as a Tool for Studying Organisations

The concept of organisations as open social systems is an approach, a way of thinking, and a language for understanding and describing many different kinds and levels of phenomena (Huse, 1980; Mohrman et al., 1989). This thinking process assists in avoiding single cause or just generally overly simplistic diagnosis and intervention. It represents a more complex view, binding the principles of simple systems, open systems, social systems, and living systems together to form a workable social systems paradigm (Kilmann, 1989b; Mitroff, 1987; Nadler & Tushman, 1987; Schein, 1970).
Social system thinking transcends traditional mental models for analysis and problem solving. It involves a paradigm shift (Gharajedaghi & Ackoff, 1984; Huse, 1980; Kanter, 1984; Senge, 1990).

Below is a listing defining this thinking and the constructs within the social system model (Cummings, 1984; Gharajedaghi & Ackoff, 1984; Hoffman, 1981; Kanter, 1984; Katz & Kahn, 1978; Kilmann, 1989a; Mohrman et al., 1989; Schein, 1970; Senge, 1990).

1. The organisation is conceived of as an open system in constant interaction with all its environments, taking in raw materials, people, energy, and information, and transforming or converting them into products and services that are then exported to these various environments. The concept of organisation is perhaps best conceived in terms of the stable processes of import, conversion, and export rather than in terms of such structural characteristics as size, shape, function, or design.

2. The organisation exists in a set of dynamic environments comprised of a number of other systems, some larger, some smaller than the organisation. The total functioning of the organisation cannot be understood without explicit consideration of these environments, the demands and constraints which they place upon the organisation, and the manner in which the organisation deals with them in the short, medium, and long term.
3. Processes and their relationships to each other are paramount. To study the organisation it is important to identify as closely as possible their inputs, outputs, and boundaries. This may be complicated by the following factors (Huse, 1980):

- In a social system the boundaries or limits are not explicitly visible as with biological and mechanical systems. The definition of boundary is somewhat arbitrary, since a social system has multiple subsystems, and the boundary line for one subsystem may not be the same as that for a different subsystem.

- As with the system itself, arbitrary boundaries may have to be assigned to any social organisation depending on the variable to be studied. The boundaries used for studying leadership may be different from those used to study inter-group dynamics. Conflict over boundaries is always a potential problem within organisations, just as it is in the world outside the organisation.

- The precise definition of the total system is often arbitrary - dependent on the purpose in studying and analysing it. The fact that the total system can be a matter of definition is one of the advantages of the systems approach, in that it allows the researcher to choose the level at which to analyse an organisation while keeping in mind that the system is interacting on many levels with other systems.
4. Holistic thinking. Social systems theory attends to the synergy of the organisation, that is, the capability of the organisation as a system to accomplish more than any of its subsystems. The paradigm appreciates that the whole is more than the summation of parts. The system assumes an identity which may be totally different to its component parts; it is explicable only as a totality. In traditional models, analysis is used to take a system apart and then explain the parts separately. This may yield an understanding of a system's structure but not of its functioning.

5. The organisation consists of many subsystems that are in dynamic interaction and dynamic equilibrium with one another. The system maintains control through fluctuations and cybernetic controls. Instead of analysing organisational phenomena in terms of individual behaviour, it becomes increasingly important to analyse the behaviour of subsystems, whether they are conceived in terms of coalitions, groups, roles, or some other conceptual elements.

6. The concept of roles is important in system theory. A role is the set of activities that the individual is expected to perform and constitutes a psychological linkage between the individual and the organisation. Katz and Kahn (1978) use the analogy of a fish net, in which each knot represents an office (or a set of expected roles), and each string represents a functional relationship between offices. If one picks up the net by any particular knot, the relationships among the specific knot (one office) and the other knots (other offices) can be easily seen.
Therefore role behaviour is not only the characteristic of the individual, but also the expectation of others within the total system. Viewed in these terms, the social system is a set of overlapping and interlocking roles both internal and external to the system.

Although the social system framework is more complex and abstract than previous models, it appears to have the potential to add real value to the field of organisational development (Senge, 1990). It is becoming increasingly important to try and experiment with this framework. The stakes for organisational success are high, and in South Africa especially they transcend the role of economics. Case after case reinforces the limitations of more traditional models to deliver what is required. Cause and effect are not closely related; ameliorating symptoms often make matters worse and trying harder typically results only in more resources being used, mainly people and money, not more results (Gharajedaghi & Ackoff, 1984; Senge, 1990).

Despite considerable progress in understanding the nature of complex social systems, systems theorists have been conspicuously unsuccessful in developing strategies for implementing this thinking (Senge, 1990). Systemic thinking is not practised widely enough and still remains the province of a small cadre of experts. In many cases the lack of exploration of this model stems from its abstract nature. Complexity is exacerbated without concrete principles to illustrate the operationalisation of the paradigm.
Since the central tenet of this thesis is to demonstrate the application of the paradigm, this framework is converted to concrete principles. An illustration of the conceptualisation of an organisation within this framework is provided in Figure 2.2. Further, the central defining characteristics of the theory are summarised in Table 2.2 (Ashmos & Huber, 1987; Huse, 1980; Mohrman, et al., 1989; Weick, 1982; Senge, 1989).

**FIGURE 2.2.**
The organisation as an open system (Huse, 1980, p 48).
TABLE 2.2

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1. Inputs</td>
<td>Open systems import energy, raw materials, information and people from the external environment</td>
</tr>
<tr>
<td>2. Through-puts</td>
<td>The process of transforming inputs into other forms.</td>
</tr>
<tr>
<td>3. Outputs</td>
<td>Inputs that have been transformed represent outputs that are ready to be exported into the environment.</td>
</tr>
<tr>
<td>4. Systems as cycles</td>
<td>The pattern of activities of events the energy exchange is cyclic</td>
</tr>
<tr>
<td>5. Negative entropy</td>
<td>To survive, open systems must arrest the entropic process</td>
</tr>
<tr>
<td>6. Information input</td>
<td>Inputs furnish signals to the and structure about the environment and about its own functioning in relation to the environment. Negative feedback enables the system to correct its deviations from course.</td>
</tr>
<tr>
<td>7. Steady state, and homeostasis.</td>
<td>The importation of energy to arrest entropy operates to maintain constancy in energy dynamic exchange. At more complex levels the steady state becomes one of preserving the character of the system through growth and expansion.</td>
</tr>
<tr>
<td>8. Differentiation</td>
<td>Open systems move in the direction of differentiation and elaboration.</td>
</tr>
<tr>
<td>9. Equifinality</td>
<td>A system can reach the same final state from differing initial conditions and by a variety of paths.</td>
</tr>
</tbody>
</table>
Conclusion

This chapter has shown how research and theorising about organisations in the last decade has progressively tended towards a view of the organisation as an open social system in dynamic interaction with multiple environments. The evolution of the paradigm is traced. The case is made that social system theory as it stands today is an eclectic paradigm, which stands above its scientific forefathers in its greater unifying power, isomorphism, and heuristic value (Sirgy, 1988). The fundamental elements of the theory are discussed and a generic model depicting these largely abstract concepts is presented.
CHAPTER 3

A TRADITIONAL APPROACH TO PERFORMANCE APPRAISALS

Introduction

The previous chapter defined the parameters of the social systems theory and established that it represents most the recent thinking in the application of the systems framework to the understanding of organisational functioning.

The social systems framework is currently dominating the social science literature where it is held in high esteem. This is especially so in the organisational psychology literature where it is being lauded for the opportunities it offers in understanding and predicting organisational functioning, as well as for its ability to be used as a framework within which to design relevant and successful organisational change interventions (Mohrman et al. 1989; Senge, 1990).

This is the point of departure for this thesis. The central theme of this dissertation is the lack of application of the social systems paradigm. It is believed that while social systems theory may be abundant in the literature the framework has progressed little further than the domain of textbooks where it remains a largely abstract theory. The reality appears to be that despite considerable progress in understanding the nature of complex social systems, systems theorists have been conspicuously unsuccessful in developing strategies for implementing this thinking (Senge, 1990).
Although the framework has been used widely to label and legitimise organisational studies, it has seen little application as a research guide and even less application in practical change intervention situations (Huse, 1980; Senge, 1990; Sirgy, 1988).

In this chapter the performance appraisal literature is reviewed and used as an example to illustrate this lack of application of the social systems framework. The practices and problems of performance appraisal as detailed in the literature are summarised, and the consensus issues are presented. This provides the opportunity to illustrate the underlying thinking models of the authors, and highlights the situation that most literature still addresses performance appraisal within the simpler traditional frameworks of the past where the organisation is viewed as a machine or an organism (Ashmos & Huber, 1987; Cooper & Wolf, 1980; Gharajedaghi & Ackoff, 1988).

Literature Study

Although only one of many organisational processes, performance appraisals occupy a special position because they relate to powerful and emotionally charged activities for both the organisation and the individual employees within the organisation (Smircich & Chesser, 1981). In this context designing a successful system demands attention not only to the technical components but also to the feelings of legitimacy surrounding the less tangible process elements. This is what makes the topic particularly challenging from an organisational intervention point of view, and also particularly illustrative of the arguments presented in this thesis.

The literature of the past thirty years reveals little progress from the work of McGregor, as laid out in his revolutionary article of 1956 (Goodson & McGee, 1991; Kanter, 1984; Koopman, 1991; Peters & Waterman, 1982). This lack of progress lies in the fact that research has not indicated a move past the mechanistic and linear models of the past.

Most of the research (Dorfman, Lovel & Stephan, 1986; Kelly, 1988; McGregor, 1987) has been based on establishing linear cause-effect relationships and tends to favour the idea of gaining understanding through reductionistic analysis, that is by reducing performance appraisals to its components and explaining function and purpose by unravelling structure (Gharajedaghi & Ackoff, 1988; Schneier, et al., 1986). In most cases the processes of appraisals are discussed in isolation from other organisational components (Kanter, 1984).
Organisational reality is a dense fabric of technical, social, and psychological threads woven together in interlocking patterns. The performance appraisal process, as part of that reality, cannot be properly understood if separated from those patterns (Brinkerhoff & Kanter, 1980). Social system theorists would argue that the real problem facing organisation is not in understanding the role and function of the appraisal process, the primary focus of past research, but rather in implementing an effective process relevant within the organisations context to all stakeholders. The challenge lies not only in designing an effective appraisal system, but also in creating an effective performance management process (Burke, 1989; Schein, 1970).

Most literature attends to the issue of effectiveness in terms of technical issues; the focus is on designing a system which is consistent with the purpose it serves and is accompanied by the appropriate formal processes.

Although not the only issues necessary for consideration in terms of a holistic social system intervention, these points are nevertheless vital in ensuring a successful performance appraisal intervention. They have bearing on the technical aspects of a performance appraisal and must therefore be integrated appropriately into any intervention. The remainder of this chapter distils the literature and presents the established points of agreement regarding the role, and process of performance appraisal as an organisational function. The common criteria linked to the successful implementation of performance appraisal are also presented.
The Role of the Performance Appraisal

Although different writers may have favoured different primary goals, the following represents the broad consensus views pertaining to the role and functioning of the appraisal process.

The Organisational Role

All organisations face the problem of engaging the energies of their members in the task of reaching their goals (Meyer et al., 1965). Achieving and succeeding within this context requires that organisations devise means to influence and channel the behaviours of their members, correcting deviations and rewarding competent performance (Cornelius, Hakel & Sackett 1979; Hall, Harder, & Posner, 1989).

Performance evaluations and appraisals constitute one of the major tools employed in the organisation's control process to achieve this end (Goodson & McGee, 1991). Further, since the connection between people and organisations is not static, and people move into and out of as well as through, a sequence of positions as the need arises, organisations also face the responsibility of deciding whom to assign roles to, and then justifying those roles to the people concerned and to others (Beer, 1981; Lazer, 1980; McGregor, 1987). The appraisal serves an important role in human resource decision making and is used in human resource allocation and management (Alewine, 1982; Cornelius et al. 1979).
The Role of Performance Appraisals for Employment

Performance appraisals also serve vital functions for workers (Lazer, 1980; Smircich & Chesser, 1981). They serve as a means of rationalising and clarifying the employment relationship, as well as being there to protect the individual employee from arbitrary discipline or the effects of non-performance based favouritism (Brinkerhoff & Kanter, 1980).

Thus, for workers the performance appraisal constitutes an important and sensitive interface and as such has a pivotal role to play in the effective management of an organisation (Cleveland, Murphy & Williams, 1989; Hall et al., 1989; Oberg, 1972; Thompson & Dalton, 1970).

The assessment of an individual's contribution and ability is one of the most emotionally charged activities in business life (Smircich & Chesser, 1981; Thompson & Dalton, 1970). The emotional power and authority sanctions contained within the performance appraisal are at the core of much of the debates surrounding the performance appraisal question and are what make the topic interesting from an organisational process point of view (Dorfman et al., 1986; McGregor, 1987; Sinclair, 1988; Wayne & Kacmar, 1991; Wexley & Snell, 1987).

The Evolution of Performance Appraisals

The first real interest in appraisal came out of the experience and reports of the USA military in World War I, and quite a few publications appeared in the early 1920's.
But really widespread industrial interest in this field lagged until around 1925, when a wave of formal job evaluation programs began to sweep the USA (Brinkerhoff & Kanter, 1980; Schneier et al., 1986). It was an easy and natural step to move from evaluating jobs to evaluating people and their performance in the jobs. Up to that time, the wage and salary structures of most companies were largely designated by the experience or the dictates of the market. Now, managements interest turned to efficiency and using job performance to make salary decisions (Lazer, 1980).

The twenties and early thirties witnessed the development of numerous studies in psychology and the behavioural sciences. From such studies and the economic and social pressures of the thirties, came an interest in the use of these new sciences in industry. The objectives of such work was not too clearly defined, but they were generally aimed at improving morale as a means to increasing productivity, lowering costs, and cutting down on absenteeism (Kelly, 1958). This period was characterised by increased sophistication in appraising employees. Most of these performance appraisal systems tried to evaluate employees in terms of the degree to which they exhibited "good" personality characteristics.

Traits such as attitude, drive and enthusiasm became prevalent evaluation standards. This led to many problems because of the subjectivity, ambiguity and lack of measurability inherent in these systems. Organisations could not adequately defend their appraisals since the connection between actual performance and possession of traits was tenuous (Lazer, 1980; McGregor, 1987).
It was here that many of the problems still with us today began to surface. Since these appraisal systems now formed the backbone of the reward and value systems of the organisations using them, they played a vital role as measuring devices. Unfortunately, as measuring devices they contained many potential sources of error (Beaulieu, 1980; Winstanley, 1980). Data validity became the critical issue; after all, the entire system falls apart when no-one trusts or supports the data coming out of that system. People, both managers and employees, began to resist doing appraisals. It was at this time that McGregor (1987) wrote his classic article and performance appraisal systems underwent a shift in emphasis.

In the fifties, companies began to include work related and result orientated factors in their evaluations. Instead of evaluating the person, appraisals began to focus on work behaviour and results accomplished (Lazer, 1980; Sloan & Johnson, 1968). These systems utilized the position description as a guide for a narrative evaluation, while other variants attempted to develop performance standards for key areas of the job (Alewine, 1982). Though still largely judgemental in nature, the tying of performance directly to the job was a clear move towards objectivity (Lazer, 1980).

The early and mid sixties was dominated by management by objectives (MBO) type systems. Many companies felt this to be much fairer and less judgemental than the trait-based approaches. Also employee participation in the objective setting process significantly increased that employees motivation to perform well. This trend led to the position where almost fifty percent of all modern performance appraisal systems are MBO based (Alewine, 1982; Lazer, 1980; Thompson & Dalton, 1970). As such most appraisal instruments reflect outputs, that is, results to be achieved rather than merely activities performed. They tend to be job rather than personality related, and generally involve negotiated objectives (Schneier et al., 1986).
Today many appraisal tools are available and appraisal systems vary, often incorporating one or more of the following systems: behavioural anchored rating scales, competency models, multiple rater systems, critical incident techniques, assessment centres, peer comparison ratings, ecetera. The technical merits, strengths, weaknesses, and concerns of these systems are well documented yet the holistic process remains largely unexplored.

The Performance Appraisal Process

In analysing the performance appraisal process researchers have focused on the technical and psychological issues in designing a performance appraisal system and have ignored a number of larger organisational issues. The literature concentrates attention upon the individual ratee, the rater, and the rating instrument, and for the most part, the wider system justifying purpose of the performance appraisal has been glossed over (Brinkerhoff & Kanter, 1980; Dorfman et al., 1986; Klein et al., 1987; Nadler & Tushman, 1979; Phillips, 1987; Pretziosi, 1986; Schneier et al., 1986). The real dilemma and challenge has not yet been met, that is, how to make performance appraisal a working component of organisational life for both management and employee, so that it meets the needs of both, and optimizes their relationship (Brett, 1981; Brinkerhoff & Kanter, 1980).

Within this framework, the problems with mainstream performance appraisal literature does not lie in the inability of past researchers to solve the problems that they faced, but rather lies in their assumptions regarding the source of the problems (Ashmos et al. 1987; Senge, 1990).
Process problems are addressed in terms of the purpose of the appraisal. The problem is seen to be as a result of the fact that the appraisal process must deliver results either of an evaluative or developmental nature (Beer, 1981; Brinkerhoff & Kanter, 1980; Hackman et al., 1983; Lazer, 1980; McGregor, 1972; Mayfield, 1960).

In the case of the former evaluation, the orientation is primarily historical, "backward looking"; past performance is reviewed in the light of results achieved (Koopman, 1991; Lazer, 1980).

The evaluative function of a performance appraisal provides an information and control system for the organisation, and the information has traditionally been used to provide systematic judgements to back up salary increases, promotions, transfers, and sometimes even demotions or terminations (Gomezmejia, 1990; Goodson & McGee, 1991).

The pursuit in this regard has been for some objective criteria for organisations not only to rate individuals on, but also to compare them on (Brett, 1981; Goodson & McGee, 1991). As will be discussed later, the achievement of objectiveness and fairness has proved elusive.

In contrast, the performance appraisal's developmental orientation is forward looking, aimed at increasing the capacity of organisation members to be more productive, effective, efficient, and/or more satisfied in the future (Alewine, 1982; Brett, 1981; Goodson & McGee, 1991; Smircich & Chesser, 1981). In this regard the performance appraisal is a means of telling a subordinate how he or she is doing, and suggesting needed changes in behaviour, attitudes, skills or job knowledge.
Information emanating from developmental appraisals is increasingly used as a basis for the counselling and developing of the individual by the superior (Beer, 1981; Brinkerhoff & Kanter, 1980). The developmental process of an appraisal system seems to most closely approximate the employee’s needs (Campbell & Lee, 1988; Lazer, 1980). Employees want and desire feedback about their performance. It helps them learn about themselves, how they are doing, and what management values (Hackman et al., 1977; Hall et al., 1989).

In most organisations the performance appraisal process generally involves inter alia the following elements (Brinkerhoff & Kanter, 1980):

(a) separate assessments by the manager and the subordinate using a standard organisational assessment form;
(b) a face to face discussion of these assessments;
(c) a chance for the subordinate to declare his or her interest in other jobs or training programs;
(d) an action plan between manager and subordinate about further steps to develop the subordinate;
(e) and in large organisations collection of data about worker skills and career goals in a central information bank.

Research asserts that developmental appraisals require that managers share their ratings with employees more freely, and that information tends to be open and accessible, and the climate one of candidness, information seeking and constructive development (Beaulieu, 1980; Lawrie, 1990; McGregor, 1972). When coaching and development are the goals, managers play the role of helper. To help they must draw out subordinates, listen to their problems and get them to understand their own weaknesses (Huse, 1984; Meyer et al., 1965; Schein, 1970).
In contrast to this, when the appraisal is being conducted to meet evaluative goals, as per the organisations needs, the appraiser assumes the role of "judge" (Mcgregor, 1968). Now the system is a tool by which managers make difficult judgements that affect their subordinates futures (Lazer, 1980). This is where the fairness and honesty issue in a face- to-face situation becomes contentious (Winstanley, 1980). When rewards, such as pay and promotion, or even continued employment are tied to the evaluation, employees have every reason for wanting to avoid unfavourable evaluation (Beer, 1981; Goodson & McGee, 1991).

Thus the climate in evaluative appraisals is often defensive and guarded. This is especially so in cases where employees are not given the opportunity, or even perceive that they have not been given the opportunity, to influence evaluative ratings (Gomezmejian, 1990; Pooyan & Eberhardt, 1989). In this mode, the communication is apt to be curt and defensive on both sides, and in many cases research (Beer, 1981; Lazer,1980; McGregor, 1972) indicates the climate to be one of faulty listening and low trust. Ironically research has shown that the poorer the employee’s performance, the worse the potential conflict, and the less likely that there will be an exchange of valid information (Beer, 1981; Lazer,1980; Winstanley, 1980).

As long as the employees see the appraisal process as having an important influence over their rewards (pay and promotion), their career (promotions and reputation), and on their self-image they will be reluctant to engage in open and honest sharing of this information, a requirement essential for the development process (Beer, 1981; Bennis, 1972; Campbell & Lee, 1988; Mcgregor, 1972).
Much has been written regarding the process and communication problems inherent in evaluative performance appraisals (Campbell & Lee, 1988; Hackman et al., 1983; McBriarty, 1988; Phillips, 1987). These thoughts and articulations have not changed much from the classic work of McGregor in 1958 (McGregor, 1987) where he cautioned that this approach constituted a violation of the integrity of the individual’s personality as well as that of the managers (Beer, 1981; Goodson & McGee, 1991; McBriarty, 1988; Wayne & Kacmar, 1991; Winstanley, 1980).

According to the literature the basic dilemma of the appraisal process is: how to have an open discussion of performance that meets the employee’s need for feedback and the organisation’s need to develop employees, yet prevents damage to the employee’s self-esteem and to his or her security about organisational rewards (Beer, 1981).

**Key Issues relating to successful Implementation**

There appears to be a number of reasons why performance appraisal programs fail or succeed. Among the culprits are: multiple uses of the program, lack of management support, impracticality, subjectivity, and lack of job-relatedness (Brinkerhoff & Kanter, 1980; Gomezmejia, 1990; Hall et al., 1989; Kirkpatrick, 1986; Klimoski & Inks, 1990; Lawrie, 1990; McBriarty, 1988; Pooyan & Eberhardt, 1989; Russell & Goode, 1988; Wayne & Kacmar, 1991; Wexley & Snell, 1987).

According to the literature a primary reason for performance appraisal failure is too many uses and conflicting objectives (Lazer, 1980). Also in cases where management does not support actively through sanction and reward the performance appraisal system, the programme is likely to fall by the wayside and become just another "personnel programme", a doubtful paper filling-in exercise (Koopman, 1991).
Job relatedness or the lack of it, is another critical problem for performance appraisals. The decision relating to what to measure is critical and even with objective setting approaches, job relatedness can become an issue. In those situations where one individual's objectives conflict with someone else's objectives. Or in cases where the objectives and results are so overemphasised as to be to the detriment of the job and the overall organisation, that is, a Machiavellian "end justifies the means" type of situation arises.

The next major issue concerns the problem of rater bias or rater error. This issue has become more important in the eighties and nineties with the heightened awareness of the need for fairness in the workplace. Rater bias within this context, means a manipulation of ratings to suit individual needs (e.g. compensation, or merit pay, or promotion), and as such, trade unions may argue that organisations may be using performance appraisal to affect the "terms and conditions of employment".

Finally, an appraisal system must not be so unwieldy or difficult to administer that it cannot serve the purpose for which it was designed.

Despite the list of problems there is general agreement as to the characteristics of a good appraisal system. The characteristics are, in reality, the positive side of many of the deficiencies, and include job-relatedness, clarity of purpose, validity, standardised procedure, and practical administration.

Since the essence of this paper is to present the systemic framework as an alternative to past practices, these characteristics (which contribute to the success of a performance appraisal) will not be elaborated on here, rather, they are discussed in the next chapter.
The next chapter illustrates the conceptualisation of performance appraisals within a social system paradigm. The salient components of past literature are integrated and applied within a holistic framework, the aim being to create an integrated, relevant and effective performance appraisal process. No one part of organisational life can or should be studied in a vacuum, but rather each must be examined and understood in terms of the larger social system of which they form part (Mohrman et al., 1989).
CHAPTER 4

A FRAMEWORK FOR THE APPLICATION OF THE PRINCIPLES OF SOCIAL SYSTEMS THEORY TO A PERFORMANCE APPRAISAL INTERVENTION

Introduction

This chapter describes how a performance appraisal intervention could be orchestrated using the open social systems paradigm. It represents the application of the principles of the theory as detailed in Chapter 2 and combines these with the salient issues derived from the performance appraisal literature detailed in Chapter 3.

Describing the operationalisation of the social systems paradigm by way of a specific example addresses a key criticism of the research and literature on the open system paradigm. The criticism being is that this theory is highly abstract and thus difficult to apply within the context of day-to-day organisational problem analysis (Mohrman et al., 1989).

Holistic Organisational Diagnosis

Applying the social systems paradigm requires the adoption of a new perspective. As explained in the previous chapters, systemic awareness and responsibility set a unique tone for interpreting the world (Senge, 1990). Social systems thinking is not merely an enhancement of traditional organisational thinking, rather it involves a conceptual shift and thus requires its own appropriate mental models. These models need to provide the ability to organise and understand organisational functioning (Gharajedaghi & Ackoff, 1984).
Conceiving of an organisation as an open interactive community is a highly complex task (Mohrman et al., 1989). Understanding individual behaviour from this perspective is challenging in itself. A group made up of different individuals and multiple relationships between these individuals is even more complex. The situation is exacerbated ten fold in a large organisation made up of thousands of individuals, hundreds of groups, and countless relationships between and among these groups. In the face of this overwhelming complexity, a diagnostic model becomes vital as it provides the opportunity to order and make sense of organisational behaviour. It enables one to organise information and frame it into relationships (Cummings, 1983; Cummings, Mohrman & Mohrman, 1985).

In this chapter the Nadler-Tushman (1983) contingency model is used as a diagnostic framework. It provides a skeleton and allows for the sketching of broad implementation parameters.

Figure 4.1.
Nadler-Tushman congruence model (Nadler & Tushman, 1980).
The Nadler-Tushman model represents the organisation as a dynamic social system and conforms to all requirements as set out in Chapter 2. This model provides the capacity to understand and predict the patterns of behaviour at individual, group and organisational level (Lawler, 1986; Nadler & Tushman, 1989).

As a framework for understanding organisational functioning the model defines two different levels of analysis and diagnosis.

One level of organisational diagnosis involves assessing the congruence between the outputs being produced by the organisation, and that which the larger system, that is the environment, requires. This level of analysis relates to issues of organisational effectiveness. Simply put, the diagnosis pertains to whether or not the organisation is producing the appropriate outputs desired by its wider environment. The diagnosis and analysis of organisational effectiveness can be framed around the question: "Is the organisation doing the right things?"

The other level of organisational diagnosis relates to internal congruence, that is the compatibility and alignment of all internal systems. This level of organisational analysis relates to issues of organisational efficiency. In this model the internal systems are divided into four areas. These represent the tasks, the formal systems, the informal systems and the people. The hypothesis of this model is that an organisation is most efficient when its major internal components are congruent. In this scenario all messages consistently reinforce and are reinforced by each other and energy is purposefully and consistently channelled. The diagnosis and analysis of organisational efficiency can be framed around the question: "Is the organisation doing things right?"
For the purposes of this chapter the primary focus will be on diagnosing the degree of internal congruence. The discussion will focus on outlining how to effectively integrate a performance appraisal system into an organisations transformation processes. Within a holistic social system paradigm the primary criteria for measuring the success of the performance appraisal will be the degree of fit achieved between it and other internal systems.

However this cannot be done in isolation and must be superimposed on the existing level of internal congruence and matched to the level of external congruence required in order to ensure that the organisation remains viable in the long term (Beckhard & Harris, 1987; Lawler, 1986; Nadler & Tushman, 1977).

Within this paradigm the performance appraisals must be seen as one of many management tools. Then, as with any process intervention, the criteria for utility and success are determined primarily by congruence and compatibility within the context of the organisation (Koopman, 1991; Lawler, 1986). Instead of concentrating solely on the analytical and structural elements of performance appraisals, the social systems paradigm demands that one steps back and reviews the whole. The environment, culture and total organisational system must be understood (Beckhard & Harris, 1987; Beer, 1980).

Thus performance appraisals must be understood in terms of its relationships within the organisation and the degree of fit between it, and other aspects of organisational reality, as well as in terms of its relationship to external organisational variables (Lawler, 1986; Nadler and Tushman, 1977).
This is especially relevant since performance appraisal relates directly to the processes for building the organisation's human capabilities and these capabilities should be geared in terms of the overall organisational purpose and desired outputs.

In an organisation where there is already a high degree of internal congruence and efficiency, and this is relevant and consistent with the required external congruencies, the task is simpler. Where this is not the case the task becomes more complex.

The Intervention Framework

Chapter 5 narrates an actual intervention done within this framework. This chapter merely outlines the implementation framework and details the distinct phases involved in establishing a workable performance appraisal system according to open social system thinking.

The intervention process must be guided by a model. Accordingly, in this case, the first phase in the intervention must be organisational diagnosis. This diagnosis would need to ascertain the degree of internal congruence in the organisation.

Once this is established, the next phase would require an assessment of the extent to which this internal congruence is consistent with, and supportive of, the long term requirements for the organisation's continued existence.

In order to comply with the heuristic nature of systemic thinking, once the diagnosis has been completed the information would need to be translated into an implementation plan.
This would need to be an action plan which detailed both the process and system changes which were required, and delivered these within an incremental implementation path. Each step in the action plan would need to be driven by attention to the feedback from, and constant input of, all stakeholders (Brinkerhoff & Kanter, 1980; Burke, 1988) The implementation plan would thus follow the action research protocol (Beckhard & Harris, 1987; Cummings, 1980; Katz & Kahn, 1978; Kilmann, 1989; Schein, 1970).

In broad terms the action plan should embody three distinct outputs; firstly, understanding the organisational context, secondly, empowering the management to take ownership of the process, and thirdly, ensuring that the performance appraisal process remains a living part of the organisation. The implicit assumption being that all stakeholders, through the implementation process, will be fully empowered so that they are able to take ownership of a living process, understanding and appreciating its benefits and being fully versed in all aspects necessary for successful implementation.

Understanding the organisational context

This section of the action plan will revolve around doing the diagnosis. In essence the following must be achieved:

- analyse and make explicit the internal transformation systems, that is the tasks, formal systems, people and culture.

- understand the relationships, workflows and interdependencies.

- review the organisation structures as they effect the appraisal.
Nadler and Tushman view the organisation as being the mechanism that takes inputs and transforms them into outputs. Their major focus for organisational analysis is on the transformation processes. Their model conceives the organisation as being made up of four major components: tasks, formal structures, informal structures/cultures and individuals.

The first component is the tasks, the work to be done and its critical characteristics. The second component involves understanding the individuals who perform the organisational tasks. The third component includes all the formal organisational arrangements, structures, processes and systems which are designed to motivate and facilitate individuals in the performance of organisational tasks. Finally, the fourth component refers to the set of informal organisational arrangements which, although are not written down, emerge over time. These include patterns of communication, power and influence, values and norms, etcetera, which characterise how an organisation actually functions. The relationship between components is the basic dynamics of the model (Nadler & Tushman, 1979).

It suggests that as systems organisations are composed of multiple interdependent parts, and that changes in one element of the system result in changes in other parts. The model also asserts that organisations have the property of equilibrium - that is, the system will generate energy to move towards a state of balance in which the different parts of the system are congruent or have a sense of fit with each other.
The critical diagnostic questions must revolve around seeking congruence between these internal systems, and exposing conflicting components. Since problems of effectiveness due to management and structure are believed to stem from lack of congruence among the key organisational components.

However within this model contingency thinking is vital, that is, the model does not suggest that internal congruence alone is the way to organisational effectiveness. Rather the model asserts that what is effective differs greatly from organisation to organisation and from environment to environment. It all depends on the degree of fit with the external environment. In order to produce certain goods and offer certain services, an organisation may need to be structured and managed one way within that environment, while for producing other goods and services it may need to be structured, staffed and managed entirely differently.

The organisation must be analysed into its components as this will give the researcher the ability to understand the way the organisation currently operates. Also, by examining the components in relation to one another the researcher is able to establish current inefficiencies within the organisation. In this way the context for the performance appraisal intervention is established and the necessary actions can be planned.

This diagnosis removes one from beginning the analysis by debating the absolute right and wrongs of the technical components of the performance appraisal instrument, a characteristic of past performance appraisal research as detailed in Chapter 3. Rather, it focuses on the relationships within the organisation and thus exposes the dimensions which will be required to make it an effective and meaningful process within that specific organisation; given the people, tasks, rules and culture as well as the overall purpose and external requirements of the organisation.
Once the holistic issues are more clearly understood the researcher will need to attend to the internal performance appraisal specific technical issues. Attendance to, and resolution of, these issues is imperative to ensure that the appraisal process and instrument are successful.

These issues relate to problems as exposed by traditional research; they generally refer to the actual design of the instrument as well as the performance appraisal process. The following five features represent the core issues detailed in the research (Brinkerhoff & Kanter, 1980). Understanding and resolving these issues is the final part of the diagnosis phase.

Task interdependence.

Complex organisations are composed of functionally specialised units whose activities and outputs combine to achieve some common goal. Though members of these units have responsibility for specific tasks, at some point these tasks reach an interface with either those of other members of the same unit or those of other units. Task interdependence constitutes this interface (Brinkerhoff & Kanter, 1980).

Due thought must be given to appraising the organisational structures and evaluating whether employees are within their own area of accountability and have been given the tools and resources to get their jobs done (Alewine, 1982; Beaulieu, 1980; Lazer, 1980).
Despite the almost redundant obviousness of task interdependence in organisations, it would seem that it is often ignored (Brinkerhoff & Kanter, 1980; Schneier et al., 1986), and there is an almost tacit assumption behind a majority of performance appraisals that the appraisee is the sole determinant of his or her performance (Goodson & McGee, 1991; Klimoski & Inks, 1990).

The result is that the appraisee is often placed in a situation of being evaluated for performance over which he/she has little control and this leads to situations where the performance appraisal has no credibility (Brinkerhoff & Kanter, 1980; Gomezmejia, 1990).

Task visibility.

Organisational arrangements and the nature of the tasks place limits on the extent to which performance can be observed. Some tasks are difficult to observe (for example, research, strategy, etc.). Others, though observable, take place under circumstances that make inspection difficult or extremely cumbersome and costly (for example, sales persons in the field, shift workers, workers in high security areas, etc.).

Even in situations where barriers to observability are slight, certain psychological considerations enter in. The sense of excessively close supervision inherent in highly visible tasks can actually be detrimental to performance (Lawler, 1986) especially in the modern work environments where there is a strong need for individuals to feel responsible and involved in their work (Brinkerhoff & Kanter, 1980; Cummings, 1984; Koopman, 1991). People need to know that their contributions are recognised not only the processes by which they made them (Brinkerhoff & Kanter, 1980).
It is important to differentiate between activity and outcome when deciding on what will be evaluated (Huber, 1989; Wayne & Kacmar, 1991). Yet while the principle is widely accepted, the problem of recording activities instead of outputs is still widely prevalent today (Brinkerhoff & Kanter, 1980; Gomezmejia, 1990; Hall et al., 1989).

The task visibility characteristic is also important to the criteria setting component of performance appraisal. Management By Objectives, and lessons from the past, are establishing a trend toward basing evaluation criteria more on the observable (Martin, 1986).

Yet this is raising criticism at higher levels in the organisation where executives are resisting and arguing that this method of assessment is not relevant and has little purpose in measuring their effectiveness (Brinkerhoff & Kanter, 1980; Russell & Goode, 1988; Sinclair, 1988; Wexley & Snell, 1987). Their criticism must be heeded. If executives do not value the process, no matter how relevant and integrated it is, it will soon become an empty vessel as their perceptions cascade into the organisation (Goodson & McGee, 1991; McBriarty, 1988; Wayne & Kacmar, 1991).

The structuring of the authority system.

The structure of the authority system affects the performance appraisal in terms of who is involved in deciding the criteria. To the extent that different people are responsible for setting criteria, allocating tasks, and evaluating, the probability of clear understanding of the performance appraisal system, satisfaction with the system, accuracy of appraisal, and smooth functioning is reduced (Brinkerhoff & Kanter, 1980; Goodson & McGee, 1991; Pooyan & Eberhardt, 1989; Wayne & Kacmar, 1991).
Power differentials.

Closely related to, but by no means necessarily contiguous with, the impact of authority systems is the capacity of organisational power differentials to affect the workings of the performance appraisal process (Brinkerhoff & Kanter, 1980; Hall & Harder, 1989; Wayne & Kacmar, 1991). Some organisational groups are able to gain control over the extent to which their work is subject to scrutiny; their control is a function of power rather than authority (Brinkerhoff & Kanter, 1980). Power can be defined as possessing the access to information and resources needed to get things done - credibility and clout - rather than the ability to coerce someone into doing something (Brinkerhoff & Kanter, 1980). This has several implications for the performance appraisal process. Powerless raters are less likely to use performance appraisal effectively, and may use it punitively (Goodson & McGee, 1991; McGregor, 1972). As described previously the issue of power can thwart the best system if it is not recognised; in reality subordinates will quickly discover what kind of performance "really" counts (as opposed to what is said to count) and direct their efforts accordingly (Brinkerhoff & Kanter, 1980; Dorfan et al., 1986).

Communicating the appraisal.

The final organisational feature with important consequences for performance appraisals is the nature of communication around evaluations (Brinkerhoff & Kanter, 1980; Gomezmejia, 1990; Kelly, 1958; Klein et al., 1987; Lawler, 1986; Martin, 1986; Mayer, 1980; Sinclair, 1988).

Broadly defined the communication issues surrounding evaluation deal with the following:
1. Provision of feedback in an appropriate manner.

A major dimension of the performance appraisal revolves around the communication style employed in the interview (Lawler, 1986; Lazer, 1980). Style has an important bearing on the openness, trust and honesty of the exercise (Winstanley, 1980).

It has been advocated that performance appraisers adopt a joint problem-solving style which involves specific feedback on problem areas and focuses on helping and encouraging (Brinkerhoff & Kanter, 1980; Goodson & McGee, 1991; Martin, 1986).

2. Maintaining objectivity and relevance.

The criteria for evaluation must be explicit and known before the appraisal time (Ashmos & Huber, 1987; Beaulieu, 1980; Mayer, 1980). The ratee should see the relevance of the criteria and feel comfortable being judged within those standards (Hall & Hall, 1976; McGuire, 1980; Wayne & Kacmar, 1991). Personality issues should not form part of the criteria as all feedback must be substantiatable (Goodson & McGee, 1991; McGregor, 1972; Winstanley, 1980).

3. Creating a sense of ownership for the appraisee.

The issue of rater participation has been widely discussed (McGregor, 1972; Morrison & Katz, 1981). The essence of this discussion revolves around the creation of a sense of ownership by the appraisee (Martin, 1986; Smircich & Chesser, 1981). This sense of ownership could be generated through collaborative goal setting and a problem solving orientation (Beer, 1981; Klein et al., 1987; Pretziosi, 1986).

Too frequent evaluations and feedback can be seen as indicating excessively close supervision and a stifling work environment where employee's feel they have little discretion in their work (Brinkerhoff & Kanter, 1980). This can contribute to powerlessness and the negative organisational consequences that flow from such a situation (Lazer, 1980; Russell & Goode, 1988). Thus a balance needs to be struck between timely feedback and over-surveillance.

5. Limiting the power and powerlessness dimension.

All the communication principles described above play a role in this dimension. Broadly the following observations can be made:

(a) Assessment based on personality traits are less effective than those that rate job-based traits.

(b) Task orientated appraisals are most successful in improving performance when they evaluate accomplishment in the light of specific, challenging goals. Concentrate on behaviours that the appraisee can change, and on outcomes over which he or she has control. Provide feedback which is neither completely positive nor overwhelmingly negative.
Empower management for effective appraisals

Empowering management revolves around enabling them to take ownership of the necessary changes and become partners in wanting the desired outputs. This demands that an action plan be devised which develops the capabilities of the managers, and staff to use the performance appraisal instrument and understand and appreciate the appraisal process. They should understand the strategy of the organisation and how to best to manage performance within the organisation's purpose, appropriate to the culture, rules, people and nature of the work. Achieving this requires the sharing of information and the development of relevant well structured management tools (Brinkerhoff & Kanter, 1980; Mohrman et al., 1989; Nadler & Tushman, 1979).

True empowerment will come from the ownership of the management tools (Schein, 1970) and the understanding that the results required are not dependent on technical knowledge alone, but also on the process of how the tools are applied (Huse, 1980), that is, the process of managing.

The social systems framework demands that in order to survive as a legitimate organisational process, performance appraisals must become integrated into the total human resource and management activities of the organisation (Brett, 1981; Brinkerhoff & Kanter, 1980; Cummings, 1980; Katz & Kahn, 1978; Kilmann, 1989; Lazer, 1981; Wikstrom, 1975).
Performance appraisal intervention within a systemic framework demands no more from management than the proper execution of their role, that is, to be a good manager and achieve the organisation's goals and objectives while properly compensating and developing employees (Brett, 1981; Lazer, 1980; Smircich & Chesser, 1981).

Organisations that have begun to, or continue to, increase productivity usually have a clear vision of what they are attempting to accomplish (Mohrman et al., 1989). They have devised plans and strategies to make that vision more concrete and goals and objectives to ensure that it is achieved (Burke, 1988). However, most organisations often leave to chance the means by which those expectations are fulfilled (Koopman, 1990). Managers read and hear about the exhortations emanating from the organisation in support of its vision.

But such exhortations are not specific enough to provide concrete guidance and empowerment to managers, and therefore, even the brightest and most creative among them are often at a loss when they attempt to take the managerial actions that will achieve the required goals and objectives (Nadler & Tushman, 1989; Preziosi, 1986; Wexley & Snell, 1987).

Ensure relevance to the organisation

Performance appraisal systems and the data contained within them can take on a life of their own in organisations and can affect organisation members in unintended ways (McBriarty, 1988; Phillips, 1986). These systems are heavily influenced by "nonrational" components of organisational life and are dynamic and constant state of flux.
Constrained by the characteristics of the job being done, shaped by the perceptions of who gets the data and what they will do with it, and subject to multiple interpretations of intent, in practice performance appraisal only remotely resembles an impartial tool in the service of rational organising principles (Brinkerhoff & Kanter, 1980).

Therefore, for relevance and to ensure ownership and maintain impact of the performance appraisal system, it should be returned to the people using it and subject to it (Brinkerhoff & Kanter, 1980; Koopman, 1990). The system itself should be examined before it is implemented, by the people, and on an ongoing basis thereafter. This will increase relevance for employees and for decision makers as it will enable them to understand, question, and shape the process towards its desired end. Also, it will ensure that it is in fact a dynamic, living process geared towards building the organisation’s capacity in accordance with desired objectives and constantly ensuring that this capacity is aligned to the shifting demands of the larger external system.

Conclusion

This chapter has presented an outline for a holistic integrated performance appraisal intervention. It has highlighted some of the issues which need to be understood and contextualised in order to redesign a performance management system in an organisation conceived as an open social system. A meaningful intervention would be characterised by systemic change.

The complexity of this task is addressed by outlining the action steps which would be required within this paradigm, and explaining them in some detail.
Change would permeate into every aspect of that organisation transforming it, yet ensuring that it still maintained internal and external congruence (Huse & Cummings, 1985; Kilmann, 1989; Mohrman et al., 1989; Nadler & Tushman, 1979).

The next chapter describes an actual intervention which was undertaken in a major financial institution. It was initiated as an intervention aimed at improving employee performance, and management's ability to measure this performance. It describes a total systems approach to this brief, and as such, represents a description of the operationalisation of the social systems approach to organisational change. It is presented as a case study and serves as a further illustration of the viability and practical implementation of the theoretical proposals made in the previous chapters.
CHAPTER 5

OPERATIONALISING THE SOCIAL SYSTEMS PARADIGM: A CASE STUDY
DISCUSSION OF A PERFORMANCE APPRAISAL INTERVENTION

Section One: Introduction

The primary purpose of this chapter is to illustrate the operationalisation of the social systems framework; and thereby to address the criticism that the paradigm is highly abstract and largely theoretical relevant only to academics and a small group of experts (Senge, 1991).

This chapter utilises the case study methodology to describe the implementation of a performance appraisal intervention within the framework of the social systems paradigm.

The case study describes the underlying thinking which governed the intervention as well as detailing the actions taken and work done in a major South African financial institution during the period April 1988 to April 1989. These actions are discussed within the paradigm of holistic, integrated systemic change as established in previous chapters. The social systems framework most closely approximates the reality of life within an organisation (Gharajedaghi & Ackoff, 1984). As such it involves complex integrative thinking, and the ability to conceive of many different components of organisational reality simultaneously (Senge, 1991). An intervention orchestrated from within this paradigm necessitates the application of a multifaceted approach with different models being used at varying stages in the intervention (Mohrman et al, 1989).
The narrative of this case study attempts to map out the approach by first establishing the principles and overarching approach, and then setting the phases of change within the context of holistic open social system thinking. It is divided into two sections. Section one lays the foundation and charts the phases of implementation. Section two details the actual work done.

In section one the inherent differentiating principles of the social system framework are put forward. First the overall principle of organisational development is presented, its core distilled and the Action Research model (Lewin, 1951) explained. The Lewin model details the overarching process by which the change will be developed and implemented. The approach of joint action planning and constant feedback gives credence to the tenets of the open social system model. Thereafter the three phase Nadler - Tushman (1989) staged implementation is discussed, and the objectives of each phase are expressed. Finally within the actual implementation description, that is in section two - transforming the organisation, the Burke - Litwin (1987) change model is described. Their model is hierarchically deterministic. Thus once the diagnosis of the organisation has been completed their model allows for the prioritising and focusing of effort on organisational endeavour in sequence in order to capitalise on the interlocking and reinforcing forces operating in any organisation. Thus, the work detailed in section two, first addresses itself to the diagnosis of degree of organisational congruence, both internal and external; and then in terms of the implementation framework it follows the Burke - Litwin (1987) protocol attending first to transformational components of the organisation, and then to the transactional components.
The Case Study as a Research Methodology

Literature verifies the case study as an acceptable empirical framework among the social sciences (Peters & Waterman, 1982; Yin, 1984). Yet it is still often stereotyped as a weak sibling among social science researchers who continually criticise it for being imprecise, subjective and lacking in rigor (Campbell, 1984; Kerlinger, 1973a).

Yin (1984) contradicts these views. He argues that case studies have contributed uniquely to our knowledge of individual, organisational, social and political phenomena, and that as a social science research strategy it offers investigators unparalleled opportunities to understand complex social phenomena. He suggests that the methodology has been unduly prejudiced and presents the case study as an empirically acceptable yet humanistic study methodology. His view is that it should take its place alongside traditional research strategies such as: experiments, surveys, histories, and analysis of archival information. He contends that the case study methodology offers a distinct advantage in that it allows the researcher to retain the holistic and meaningful characteristics of complex real life events which is an important requirement for modern social scientists, and particularly relevant in this chapter.

It appears that one of the prime influencing factors which prejudice case studies, is the concept that research strategies must be hierarchical (Kerlinger, 1973a; Yin, 1984). Traditional research methodology textbooks teach that case study methodology is most appropriate for the exploratory phase of research, while surveys and histories are appropriate to the descriptive phase, and it is only experiments which should be used for causal and explanatory research (Campbell, 1984; Kerlinger, 1973a; Yin, 1984).
Yin (1984) suggests that this traditional view is inappropriate to modern day reality. A pluralist view is more reasonable, where the differentiating factor is not sophistication or scientific capability but rather the matching of the strategy with the research conditions in question. The major goal of researchers in determining research design is to avoid misfit between the strategy chosen and the needs of the study.

The boundaries between strategies are not discreet, there is much overlapping and in order to make the correct choice the investigator should consider three variables (Yin, 1984): Firstly, the type of research question being asked, that is, whether they are what, how, or why questions. Secondly, the amount of control the investigator has or needs to have over the actual behavioural events. And thirdly whether the research is focused on contemporary or historical situations.

In this situation the case study is the most appropriate strategy for explanatory and descriptive studies when the questions under consideration relate to "when?", or "how?". And in those cases where the investigator has little control over events and the focus is on the contemporary phenomena in a real life context (Yin, 1984).

Accordingly this chapter is narrated as a case study. The major research consideration is to show "how?" and "what?". The focus is on contemporary events and includes real life complexity over which the researcher cannot easily gain control.

Thus, the essence of this case study, and in fact the central tendency among all case studies, is that they illuminate the decisions taken.
They explain why decisions were taken and how these decisions were implemented, as well as what result was achieved (Schramm, 1971). Given these parameters Yin (1984) argues that although case studies can be limited to qualitative data, as in this case, they still have a distinctive place in evaluative research with at least three different applications: (i) They explain causal links in real life interventions that are too complex for experimental strategies. (ii) They describe the real life context in which an intervention has occurred. (iii) Finally, the case study strategy can be used to explore those situations in which the intervention being evaluated has no clear, single set of outcomes.

Research Design

Unfortunately there has been little codification of research design pertaining to case studies (Yin, 1984). As a research strategy a case study is an empirical inquiry that investigates a contemporary phenomena within its real life context, when, the boundaries between phenomena and context are not clearly evident, and in which, multiple sources of evidence are used (Yin, 1984).

This case study is primarily descriptive. Its primary purpose is to describe and apply the social systems framework to an organisational intervention, in this case the introduction of a performance management system.
The Background

The Financial Sector Changes

Until 1988 the South African financial sector was characterised by clear demarcations between banks and building societies. Within this framework the organisation discussed in this chapter had operated as a mutual building society for approximately 104 years, its primary business being the provision of home loans. It was structured in a traditional bureaucratic fashion with many hierarchical levels divided among functional divisions.

During 1988 a major shift took place within the financial sector as a result of the State amending the Banks Act. The legislative changes resulted in deregulation and the removal of artificial barriers now encouraged direct competition between building societies and banks. With these legislative changes this particular building society, and others, were catapulted from a stable monopoly within a clearly demarcated business area into a wider more sophisticated and highly competitive environment.

Banks with their more sophisticated infrastructure, particularly with respect to technology, hastened to compete in what they perceived as a ripe and overprotected market.

Organisational response

The building societies were forced to re-examine their business operations. Flexibility, understanding competitive advantage and maximising the opportunities it offered, became necessary to ensure survival and growth. In fact the entire organisational philosophy needed to change.
The organisation needed to move from being an administratively orientated and configured bureaucracy to being a market driven enterprise characterised by fast, responsive, effective behaviour and outputs.

Technology was seen as a critical arena in which to gain competitive advantage. The executive management of the financial institution recognised that to achieve real results, which would be felt in the profits of the company, more than an articulation of what was required would be necessary. Real planned change was required. Performance improvement would only be realised from a planned and purposeful change intervention which transformed the way those areas of the business functioned on a day-to-day basis (Burke, 1987). Within this framework some key actions were initiated.

(i) The information technology division was seen to require refocusing and restructuring division.
(ii) Technical management was replaced, or demoted, to favour business managers at the top of the organisational hierarchy.
(iii) Technology was repositioned to enable it to become a key business driving force rather than being a support function.
(iv) Addressing the organisational culture and shifting it toward being market driven and customer focused.
(v) Realign staff within the technology areas so that they identified themselves with the core business of banking, rather than solely with their technology profession.
(vi) Add an organisational change/development specialist to the team.

The primary goal of the executive management in enacting these decisions was to capitalise on their existing technology infrastructure.
The transformation plan intended to realign this subunit with the overall strategic business goals of the larger organisation. They hoped that the result would enable integrative cooperative behaviour between this unit and the other functional areas of the business. This was vital since real competitive advantage indicated that attaining synergy between this area and the traditional building society business was a priority issue.

The unit of analysis

The organisational unit directly effected by these changes was the Systems Development division. As discussed in previous chapters, social systems thinking allows one to isolate a division or unit of the organisation (Cummings, 1980). For the purposes of the intervention described in this chapter the Systems Development division is treated as a system within a larger system, and as such, defines a context where all the requirements for holistic social system transformation are fulfilled (Cummings, 1980; Freeman, 1986; Kilmann, 1989).

Subunits are more constrained than the organisation as a whole because they exist within the overall strategic context of the larger organisation and are constrained by these corporate decisions (Ledford et al., 1989). In this case, this particular subunit did have autonomy over all operational decisions required to deliver upon the agreed strategic goals. The larger system achieved control by specifying desired outputs and goals rather than by controlling the operational processes of the subsystem.
The organisation (division) needed to change. The specific organisational intervention brief was to enact the necessary organisational changes required to build the internal capabilities of the organisation enabling it to compete successfully given the latest business challenges. Since the core asset of the company, especially in the technology area, was its people, a critical component of the change brief was to ensure that staff were not alienated. Further it was felt that the performance appraisal system and process was indicative of the incorrect company focus and as such a key component of the change strategy was to revisit and redesign this system and its accompanying processes and structures.

Since the real objective of the operation was to bring about enduring changes which resulted in organisational performance improvement, it was clear that the intervention needed to be planned and orchestrated from a framework capable of meeting the challenges and complexities of a modern large scale organisation. Thus, the social systems framework was adopted. From within the holistic systemic mental model the performance appraisal procedures and processes - both formal and informal - as well as all allied organisational activities, and systems became the focus of the change process.
A key objective of the change process became the need to develop and implement an effective performance management system which would be acceptable to both management and staff, while simultaneously being relevant to the needs of the organisation with respect to measuring and rewarding those outputs which had been identified through strategic processes as essential for the organisational competitive advantage. In addition, according to the principles of organisational development and the change processes needed to achieve these results in such a way that the changes would be fully integrated into all aspects of the organisations functioning (Mohrman et al 1989).

An organisational development approach

Operating out of a social systems framework necessitated the adoption of an organisational development approach to the change intervention. Organisational development is a total system approach to change (Burke, 1987). There are three criteria which define organisational development (Burke, 1987). For change in an organisation to be organisational development it must: (1) respond to an actual or perceived need for change on the part of the client, (2) involve the client in the planning and implementation of the change, and (3) lead to fundamental change in the organisation’s culture. As detailed in the previous paragraph this intervention met all criteria. Fundamental change involves going beyond fixing a problem or improving a procedure; it relates to altering the situation in such a way that it will never again be the same (Burke, 1987; Kilmann, 1989b). Again this reinforced the need to adopt a working model which would ensure the ability to truly understand the organisation and allow the change agent to plan and implement the transformation strategy change in such a way that every component of the organisational reality could be integrated into the change process.
Intervention framework

Literature endorses the social systems model as the appropriate paradigm within which to operationalise real substantive organisational change interventions (Ackoff, 1981; Cummings et al., 1985; Kilmann, 1989b; Nadler & Tushman, 1989). Within this framework Action Research (Burke, 1987) provides a methodological approach.

Figure 5.1.
Organisational development and change models (Adapted from Burke, 1987)
Within this protocol data on the nature of a specific problem is systematically collected and action is taken as a result of what the analysed data indicates. As can be seen in Figure 5.1, the actual process of change (action) is managed according to Lewins (Burke, 1987) three phases. These are: (1) unfreezing the present level of behaviour, (2) movement, which involves taking actions that will change the social system from its original behaviour to a new level of operation and finally, (3) refreezing which involves the establishment of processes that will make the new level of behaviour relatively secure against change.

As is detailed in section two, the unlocking and unfreezing of the present system was done through direct confrontation of the problems. Using presentations and statistical projections as well as discussion regarding the climate of the organisation. The latter information was collected from focus groups. It was also reinforced through a process of reeducation, where management and staff attended training workshops where alternatives were presented and understanding was pursued through interactive debate.

In terms of creating movement and new constructive cultural norms, the performance appraisal process was highlighted. And since the process orientated approach demands joint action planning, the first step in the intervention was to educate management and staff so that they were able to identify the destructive and non-desirable behaviours and articulate the better behaviours necessary to build the organisation in terms of the agreed strategy. The Nadler-Tushman model (1977), discussed in Chapter 4, was used to illustrate the conceptualisation of the organisation as a complex social system and to diagnose problematic areas where internal alignment needed to be sought, to yield a truly effective and integrated performance management process.
The level of understanding of this approach was measured, inter alia, by the ability of those involved to grasp that it was not possible to merely design a performance appraisal document (Lawrence, 1989). To ensure that we would truly be able to get different levels and types of performance from the staff demanded alignment of internal transformational processes with each other, and with the desired outputs the organisation needed to yield in that particular environment (Nadler & Tushman, 1987).

Creating the right organisational capability meant fitting together all the separate components of the performance appraisal processes and designing a system which made sense in terms of the specific needs of this organisation (Burke, 1988; Huse & Cummings, 1985; Lawrence, 1989; Nadler & Tushman, 1979). The formal system and procedures needed to mesh with the organisational structure, and these in turn needed to be aligned with the style and culture of the organisation, as well as being relevant to the skills demanded by the organisational strategy. Finally, the "chosen combination" needed to remain dynamic in order to meet the needs of a constantly changing strategy and environment (Kilmann, 1989a; Lawrence, 1989; Nadler & Tushman, 1987).

A further indicator of their grasp of social systems thinking would be measured in their understanding of their roles in the process of change (Beer, 1986; Burke, 1989; Schein, 1970). They personally needed to get involved and allocate the necessary time from their other priorities in order to ensure the necessary changes came to fruition (Beckhard & Harris, 1987; Huse & Beer, 1971; Bennis, 1969; Huse & Cummings, 1985; Kilmann, 1989a; Lundberg, 1974; Mohrman et al., 1989; Nadler & Tushman, 1989).
Within the conceptual framework of action research, the intervention followed the three phases according to the Nadler - Tushman model (1979) as described in Chapter 4. Organisational problem analysis and diagnosis was done within this protocol (Nadler & Tushman, 1980).

In all phases of the intervention the Lewin action research model, Figure 5.1 described the intervention. During phase 1 the focus was on diagnosis of the current organisational reality. This was done by following the steps outlined below:

(i). Identify symptoms: Identify those issues which indicate that a problem exists.

(ii). Specify inputs: Identify the system and the environment within which the organisation functions. This means collecting data about the nature of the environment, the type of resources the organisation has and the critical aspects of its history. Input analysis also involves identifying what the strategy of the organisation is, including its core mission, supporting strategies, and objectives.

(iii). Identify outputs: Output analysis involves two elements. The first is to define the desired output as enunciated in the strategy. The second is to collect data regarding what output the organisation is actually achieving.

(iv). Identify problems: Problems being defined as the difference between expected output and actual output.
(v). Describe the organisational components responsible for creating the problem: This step involves analysis to expose organisational processes most relevant to creating, and hence solving, the organisational problems. In this case the primary organisational lever was seen to be the performance appraisal process.

(vi). Assess congruence (fits): Utilising the data sourced in step 5 an assessment is made of the positive or negative fit between each of the internal transformational components.

(vii). Identify action steps: Once the diagnosis is complete, the stakeholders must share in the planning of the necessary change processes. The next phases are then initiated.

Phase 2 concerns the implementation. Transforming the organisation. Empowering the management to take ownership of and drive the necessary changes. Essentially this phase of the process is driven according to the Burke - Litwin (1987) model. This model is illustrated and discussed in section two. The major issue being that the model enables one to establish a priority order and focus attention sequentially on different organisational issues. The transformational issues receive first attention with the transactional issues following.

Phase 3 relates to the feedback issue. Ensuring continual review in order to maintain relevance to the organisation. This step is vital as it protects the intervention from becoming an end in itself. Without constant feedback and review the particular intervention may take on a life of its own and the broader purpose, namely organisational survival and improvement may be forgotten (Burke, 1987; Huse & Cummings, 1985; Hoffman, 1981; Kilmann, 1989b).
The latter two phases should not be seen as discrete steps, but rather as overlapping activities which will demand contiguous attention.

The next section describes the case study. The period described is the six months between April and September 1988. The information reported was gleaned from documentation, interviews, focus groups, and management meetings. The actual documentation was unavailable for incorporation into this paper since it contained very specific organisational information which was deemed to be confidential. However, since the main purpose of this chapter is to describe the holistic approach, rather than empirically verifying the results achieved, it is felt that the lack of actual detail does not necessarily need to detract from the contribution this illustration can make in describing the processes and procedures of a holistic systemic intervention.

Section Two: The Case Study

Phase One: Diagnosing the current organisational reality

Two diagnostic activities needed to be completed. Firstly, the level of organisational effectiveness needed to be understood. According to the model this involved understanding the inputs to the system and the outputs of the system and evaluating the actual against the desired situation. Secondly, the level of organisational efficiency needed to be understood. This would be assessed according to the degree of congruence between the internal transformational processes. This then needed to be evaluated against the desired output of the organisation to ensure that whatever the level of efficiency the outputs being produced were relevant to the business requirements.
1. Understanding organisational effectiveness

(i) The internal organisational environment. Since inception the data processing division had been very much excluded from the mainstream organisation in all practical ways. This was largely a function of the mystique surrounding computers and computer people. The result was that a distinct culture had developed within the data processing division, whereby they saw themselves as a separate organisation exempt from following the norms of their mother organisation.

This had been encouraged by their management who saw themselves as different, as technical professionals in management rather than building society or financial managers. Most of the technical management took pride in "working" the system and demonstrated contempt towards the formal systems. For example, grading was applied randomly and tended to be used to ratify existing decisions with respect to pre-awarded status. Similarly pay scales were continuously exceeded. Technical management felt this to be justified since those setting pay scales had never asked for their input nor tried to understand their unique professional problems. These sentiments permeated almost all formal systems and they were rejected as imposed an entirely irrelevant.

All of this served to create a hostile internal environment where the remaining organisational staff resented these displays of independence seeing them as nothing more than discrimination and favouritism in practice.

This was in part accentuated by the lack of alternative formalised rules and procedures. This climate, in turn, served to reinforce their feelings of uniqueness and isolated them further.
They felt so against the organisation, that for a while, just prior to these changes, the entire Information Technology department had petitioned to become separated from the rest of the organisation wanting to be regarded as a bureau.

These problems had severe organisational performance implications which amounted to more than mutual misunderstanding and resentment. The hostility began to surface in work endeavours. The technology division lost sight of the fact that the broader organisation was their client, and instead adopted an adversarial attitude towards them. The users in turn refused to acknowledge the technology as a strategic business tool, treating it instead as an unnecessary evil. This internal hostility detracted from client service and innovation and instead encouraged blaming and fault-finding. This internal politicking took a heavy toll on the organisation’s ability to maximise its infrastructure and develop unique competitive advantage. Given the broader business context this looked likely to sabotage the organisation’s future.

(ii) The technology labour market. In South Africa, as well as internationally, the data processing labour market was fraught with demand and supply tussles (Computer Week, May 1988 to June 1989). The problem was so acute that all data processing literature of the time in question (1988), no matter what its content, addressed itself to this topic of the skills crisis, but more specifically, to the continual persistence of demand outstripping supply. Examination of this market place revealed that this problem was caused by a number of factors.

The information was gathered from informal interviews with data processing executives in organisations across all industries, reviewing the weekly computer newspapers and discussions with computer recruitment agencies, as well as academics in the Computer Science departments at Universities and Technicons. Trends are outlined below:
- The pace of growth within the industry was phenomenal as technology was becoming the core of most business. It was mushrooming so fast that all enterprises, no matter how small, needed to utilise computers or face competitive obsolescence.

- The shortage was also exacerbated by the fast pace of change within the technology itself. Academics were hard put to keep up with the knowledge explosion across the entire profession. Increasing specialisation was being called for. Within enterprises, the challenge was to keep abreast of developments. Generally this was done either through educating existing staff or bringing new people into the organisation who had knowledge outside of the existing workforce's skills.

- Demand and supply problems were being further stimulated by the unscrupulous forces of the data processing personnel agencies. Since people with the right skills and attitudes were the commodities being fiercely traded, these agencies began springing up everywhere in order to cash in on the lucrative possibilities which appeared.

This was especially sad since most of these agencies were capitalising on the fact that most "technology" managers had very little management training, and in fact were especially vulnerable in terms of effective recruitment skills.
Rather than fill this legitimate need for competent person-job matching, recruitment became a profit centred activity. The unfortunate reality was that these agencies were no better skilled than the management they served. By and large, they were data processing entrepreneurs who perceived a gap, an opportunity to make money. Since their money came from a percentage of the package offered to new recruits they had an incentive to keep stimulating the market, keep people moving, keep making placements, and keep stimulating the "going rate".

This had ramifications not only for organisations as employers, but also for the employees. The continual demand on their skills had created unique expectations. Staff believed they could be choosy, their focus was on negotiating good salaries and status to the exclusion of all other issues. This applied even to inexperienced programmers entering the market with rudimentary programming training -they were not looking for learning opportunities but rather ready-made career positions.

As a result, salaries seemed out of control, as did turnover within the industry. Official national figures were being quoted as 22-27% (Hay salary survey, 1989). The impact of these environmental forces on technical managers was alarming.
While the business environmental pressures squeezed the organisation, demanding competitiveness and efficiency, the labour pool environment was being seized by a panic mentality where any price was right, if it would attract high calibre resources. Management felt trapped in a no-win situation. They were afraid to focus on performance; to try new things for fear that their people would not be prepared to weather the storm. They felt too vulnerable to the skill market to risk doing anything out of the norm. An important organisational need was thus to reestablish balance, enabling management to meet the demands of the business environment, while at the same time being able to attract and retain these scarce technical skills within their organisation.

(iii). Understanding the organisation's strategy. Strategy describes the set of decisions that the organisation makes about configuring its resources against the demands, constraints, and opportunities of the environment within the context of its history (Nadler & Tushman, 1987). Strategic information is important in a systemic intervention; it enables one to assess alignment of the current operation (Kilmann, 1989a).

There are several aspects of the strategy which needed to be understood (Nadler & Tushman, 1987; Schein, 1970):

Mission - What the organisation defined as its basic purpose. This included the markets to be served, the products and services which would be provided, and the basis the organisation would compete on.

Strategy - The tactics the organisation would employ to achieve its mission.
Outputs - The specific performance objectives that had been established.

This information had not been formatted into a coherent strategic profile; the only component of the required information that was available was the mission. As this was not adequate for strategising a change intervention, the next task was to compile the information required. A number of important variables had to be established and this was done at a top team workshop, the overt purpose of which, was to provide answers in terms of the strategy.

However, it also provided a valuable process opportunity to serve as an educational forum where the existing perceptions about the status quo could be challenged and the unfreezing cycle could begin (Burke, 1987). Specific issues which emerged were:

- The organisation's anticipated positioning in the market place.
- What senior management considered to be the major strengths, weaknesses, opportunities and threats which faced the organisation as a whole, and the technology division specifically, in striving towards the mission.
- Clarity on the role of technology within the organisation. The services and products which the division would offer to the larger organisation.
- Articulation of the driving force within the division, that is, the tactics to be used in achieving the mission.
- Clarification of how the overall organisational vision and mission were to be used as a compass within the technology area.
- Agreement on the performance objectives the division and total organisation needed to achieve.
This information provided a template, an outline of what needed to be achieved. Against this, a review of the current situation was performed, looking at both the existing transformational processes as well as the external environment, that is, the inputs and outputs.

**Assessing internal congruence**

In essence the objective was to understand the degree of fit between the current state and the desired future and also to expose major problem areas (Huse & Cummings, 1985; Kilmann, 1989b; Mohrman et al., 1989; Nadler & Tushman, 1987). The Nadler-Tushman model frames internal congruence as the indicator of organisational efficiency (Nadler & Tushman, 1987). The dynamics of congruence views the organisation as being most effective when its components fit together. The extent of the fit is determined by the degree to which the needs, demands, goals, and/or structures of one component are consistent with the needs, demands, goals, and/or structures of another component (Nadler & Tushman, 1987).

Assessing internal congruence requires two levels of diagnosis. Each of the organisational components must be understood, as well as their congruent relationships, one to another. A study of the division revealed the following, inter alia, with respect to the transformational components:

1. **Tasks (the nature of the work being done):**
   * Strictly demarcated jobs
   * High degree of technical content
   * High degree of specialisation
* Strong functional focus (e.g. application programming versus network programming.)

2. Informal structures (the informal arrangements) which have emerged over time and indicate the way the organisation functions, including structures, processes and relationships:
   * Low trust and confidence in management.
   * Informal power nests really running the organisation. (Often these were highly qualified specialists who felt they were indispensable.)
   * Conflict subverted. (Lack of open confrontation and constructive problem solving.)
   * Management style was "country club". There were strong emotional demands exerted in order to get compliance.
   * Loyalty and allegiance was valued above performance and served as the indicator for progress and promotion.
   * Slow career movement.
   * Long tenure profiles at senior levels.
   * Average turnover among staff (8-15%)
   * Recruitment was an ad-hoc response to needs. Most recruitment done at junior levels, promotion from within after "serving your time".

3. Formal structure and processes (the various written rules, structures and processes that are formally created to get individuals to perform tasks):
   * Strict hierarchical structure.
   * Bureaucratic management.
   * Conservative staff practice.
   * Decisions made at top of hierarchy, sometimes by exception and sometimes by the rules, most often without explanations
   * Lack of clearly defined performance standards, and promotional criteria.
   * No standard development methodologies.
4. Individuals (the characteristics of individuals in the organisation):

* Their first loyalty was to their data-processing profession. Their second allegiance was to the particular technology within which they applied their skills
* Technocrats.
* Highly individualistic, strong affirmation needs, elitist, reluctant to face change which involved their status quo.

The next stage of assessment needed to be addressed. The critical questions now revolved around the degree of congruence between these internal components one to another, and the degree of fit between their current configuration and the desired organisational outputs (Kilmann, 1989a; Nadler & Tushman, 1982). Table 4.1 refers.

The internal congruence assessment determines the issues which should receive attention. Based on information collected, there appeared a lack of congruence between the outputs of the current transformational processes and the desired outputs as specified by the strategy and the external environment of the organisation.

The transformational components appeared congruent with each other, supporting and maintaining one another, yet they were out of line with the principles being demanded for success in modern organisations. The problems did not lie exclusively within the performance management processes but in fact was carried throughout into other aspects of the organisations functioning, for example: there was no evidence of flat structures, employee empowerment, participative management, or career development pathways (Fullagar, 1984; Koopman, 1991; Lawler, 1986; Peters & Waterman, 1982; Schein, 1970).
The problems facing this organisation involved the need for a fundamental shift in all transformational components. These internal systems needed to be refocused so as to produce outputs in line with the strategic demands. The change was to be initiated and driven through the performance appraisal and management structures and processes.

This component of organisational life created the most leverage to destabilise the status quo. It addressed issues relevant to all the human stakeholders and made for a good learning process. It allowed for easier explanations in relating it to other organisational components and their need to be transformed to ensure the best "fit" with the desired performance processes and structures. Further, since it measures outputs, it created an ideal vehicle to ensure that as the organisational outputs became more relevant and thus the organisation more successful, rewards could be dispensed to the individuals whose efforts made this possible. There was a gain for the organisation and a commensurate gain for its people.

An advantage that the social system paradigm offers is that it allows the change agent to encounter and plan for complexity. It thereby increases the chances to design a sustainable, appropriate and effective intervention (Mohrman et al., 1989). It demands strategic thinking rather than only tactical thinking. The questions become "where do we want to be?" and "what should we do to get there?" (Lawler, 1986).
Table 4.1
Definition of degrees of internal fit (Nadler & Tushman, 1982).

<table>
<thead>
<tr>
<th>FIT</th>
<th>THE ISSUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual - organisation</td>
<td>To what extent individual needs are met by the organisational arrangements. To what extent individuals hold clear or distorted perceptions of organisational structures, the convergence of individual and organisational goals?</td>
</tr>
<tr>
<td>Individual - task</td>
<td>To what extent the needs of the individuals are met by the tasks, do individuals have skills and abilities to meet task demands?</td>
</tr>
<tr>
<td>Individual - informal organisation</td>
<td>To what extent individual needs are met by the informal organisation. Does the informal organisation make use resource consistent with informal goals?</td>
</tr>
<tr>
<td>Task - organisation</td>
<td>Whether the organisational arrangements are adequate to meet the demands of the tasks, do these arrangements motivate behaviour consistent with task demands?</td>
</tr>
<tr>
<td>Task - informal organisation</td>
<td>Whether the informal structures facilitate task performance or not, whether they hinder or promote meeting the demands of the task?</td>
</tr>
<tr>
<td>Organisation - informal organisation</td>
<td>Whether the goals, rewards and structures of the informal organisation are consistent with those of the formal organisation?</td>
</tr>
</tbody>
</table>
The social systems framework provided an alternative. It allowed management to move from understanding the problems, to pinpointing possible relationships which could provide solutions - a fundamental open systems principle being that change in one factor will eventually have an impact on the others.

As a result of the diagnostic work it became clear that change was necessary. The degree of incongruence between the current situation and the strategic requirements was large, and whilst concerning, was also positive, since it alluded to the research principle that more than any other event the most positive force for organisational change emanates from environmental impact (Burke & Litwin, 1987).

What remained was to design the ways which would allow the organisation to achieve its desired goals, and to do this in a manner which empowered all stakeholders, creating a learning environment so that from this experience they would be able to constantly review and check the relevance and appropriateness of the organisation's functioning (Brinkerhoff & Kanter, 1980; Senge, 1990).

**Phase 2: Transformation of the Organisation**

**Transformational focus.**

The collaborative work of Burke and Litwin (1987) bore a hierarchical deterministic model for organisational change.
Their model as depicted in figure 5.2, outlines the change process, showing specifically the primary variables which must be integrated into the change intervention, and their relationship to effecting change.

**Figure 5.2.** Burke - Litwin model (Burke Litwin, 1987)
In keeping with their model the initial phase of the change was aimed at the transformational organisational components; namely leadership, mission, strategy, and organisational culture.

Activating leadership

Role modelling became an important component of activating leadership in the organisation (Burke, 1989; Cummings et al., 1987; Nadler, 1981; Peters, 1989). The General Manager and his top team needed to take ownership of the interventions.

Redefining the norms. The strategic planning exercise illustrated the need for new organisational norms; a different culture was required. People needed to feel accountable, customer driven, creative, responsive and strongly performance driven. These values and norms needed to be fostered.

The leadership needed to articulate a vision describing an exciting and hopeful future for the organisation. They needed to communicate this and explain the strategy within the context of the vision. However, to really nurture a new culture they needed to move beyond words and into actions.

Changing culture requires planned effort aligned with leadership behaviour (Burke & Litwin, 1987). The leadership role in this regard was to reinforce that things were changing, to articulate the values, and operationalise them to demonstrate and encourage the right behaviours, making them visible to all. Through personal contact the management needed to separate the old regime from the new (Koopman, 1991; Peters, 1989).
Staff needed to feel the difference; not only understand it. The role of the human resource function was to keep abreast of uncertainty that the change generated as well as to attend to the process issues which constituted the change protocol. To provide a refuge for those who felt unsafe and worried, counsel and support where possible, but also try and pinpoint vulnerable areas and weak links (Brinkerhoff & Kanter, 1980). Their role was primarily to keep the process dynamic by consistently encouraging and incorporating feedback. Their focus was to ensure internal alignment especially between the formal and informal systems and to avoid the situation where often the underlying, or less tangible, organisational components are forgotten until they manifest in negative compliance issues (Beer, 1981; Kilmann, 1989a).

Feedback indicated that the main concern on the minds of the staff was the need for congruence between what they were expected to produce and the functioning of the promotion, recognition and reward schemes. Clearly they were keen for the new management to address their performance appraisals, their career opportunities, and their remuneration.

Their feedback reinforced the lack of fit between the existing and desired reality (Nadler & Tushman, 1982). There was dissonance between what the organisation expected and what it inspected and recognised.

Also the performance appraisal system required attention. However, in line with open system thinking it was important to uncover related practices before attempting to impose a better designed system since no real organisational development intervention should focus on a single management process and attempt to change that in isolation (Beer, 1981; Brinkerhoff & Kanter, 1980; Huse & Cummings, 1985; Mohrman et al., 1989).
Performance appraisal has a large impact on the definition of job and role; training requirements, career pathing opportunities, recruitment, promotion, day-to-day management practices, reward systems, status, in fact, every organisational process that interfaces employees and the organisation. Therefore, any intervention aimed at transforming the appraisal has to transform the entire internal organisational functioning. Thus, to really effect meaningful change and harness this tool in terms of desired end results for the organisation, it is vital to ensure that change is organisation-wide (Kilmann, 1989) that it impacts on all parts of the transformational equation. Failure to do this would not allow fundamental change, nor would it allow sustainable and appropriate change (Nadler & Tushman, 1989).

**The Transactional Focus**

In order to maintain the credibility of the change process, as well as ensure maximum commitment from management, it became important to attend to and integrate the short term and daily operational reality. The process needed to address the transactional variables, that is, those variables relating to the climate of the organisation (Burke & Litwin, 1987). These issues of organisational climate have large and important consequences for motivation and thus organisational performance (Mohrman et al., 1989).
Shaping the climate.

In the Burke-Litwin (1987) causal model, day-to-day climate is a result of transactions related to issues such as:

* Sense of direction: the effect of mission clarity or lack thereof;
* Role and responsibility: the effect of structure, reinforced by managerial practice;
* Standards and commitment: the effects of managerial practice, reinforced by culture;
* Fairness of rewards: the effect of systems, reinforced by managerial practice;
* Focus on customers versus internal pressures or standards of excellence: the effect of culture reinforced by other variables.

These issues received focused attention as detailed below.

Effecting the necessary and desired outputs was largely contingent on the outputs of the Phase 1 initiative. The reality of the climate was a manifestation of the behaviour of management and the realignment of the internal formal systems; especially the performance management processes and systems. It was important to integrate the feedback of management from their strategic planning workshop. A critical strength that they had identified was their people; their loyalty, skills, and capacity to grow. For them, the challenge lay in maximising this inherent strength, harnessing the hearts and minds of these people, and making them part of the desired future.
In order to demonstrate commitment to the new norms of valuing people and fostering accountability, it was decided to develop the new performance management systems from within a participative framework. The participative framework would be the modus operandi not only because it was seen as an enabling style (Koopman, 1991), but also because it encouraged management to get the best ideas from the widest base.

Its value also lay in its compatibility with the personal aspirations of the employees. (In terms of the Nadler-Tushman model, the formal system was being aligned to the people component.) It was tangible proof to the employees that their management saw them as responsible adults with a huge stake in the management of the organisation as well as their own careers. This approach also addressed management's fear of the external labour market. By making the employees part of the process, it was hoped that this would lessen the risk of them leaving because of insecurity and fear of change.

Frequent, honest communication became the anthem of management. This in itself was a change. Many of the senior management struggled with it fearing that the more they shared and disclosed the less their own jobs and authority positions would be respected. In dealing with these insecurities a harder line was taken. The reasoning was explained openly and their fears were discussed and allayed as far as was honestly possible.
An environment of support and respect was fostered in order to create a climate where they themselves would feel safe to risk and change. However resistance to this and a substantial demonstration of refusal to become more flexible was dealt with swiftly and harshly. This was not without risk. It engendered fear and even hostility as many long-standing managers disappeared from positions of authority.

The primary reason for this approach was the need to demonstrate visible behavioural commitment to these new norms and to ensure that top down the message was handled consistently by everyone in positions of leadership.

These behaviours were aimed at: building ownership of the changes at all, including the lowest, levels; flattening structures; fostering trust and bolstering communication; all to help produce a climate of greater flexibility and client focus.

Aligning the formal system.

1. Jobs, training and career advancement. This involved introducing compatible and concrete changes. Not only the "way we do things" needed to change but also "the things that we do" (Nadler & Tushman, 1989). The performance management processes and systems were explained as multidimensional, interlocking processes and procedures. No system or procedure could be viewed or conceived of in isolation. Organisational success would depend on contextual relevance and remaining cognisant of the relationships between issues (Kilmann, 1989; Lawrence, 1989; Nadler & Tushman, 1989).
Thus the performance management intervention was to be run as a career, training, and performance management change process. It became an ideal holistic intervention because it demanded a return to basics: re-design the jobs/tasks; re-affirm what outputs were expected; integrate these outputs into a performance management system; and link this to renumeration and overall career growth opportunities. The process, style, and deliverables of the intervention had to be in keeping with desired culture of the future. In order to ensure that the intervention would yield successful results for the organisation, the planning and orchestration needed to integrate not only the open system organisational development requirements, but also those of the lessons learnt in past performance appraisal research as detailed in previous chapters (Mohrman et al, 1989; Nadler & Tushman, 1989).

The intervention needed to go beyond conventional job description rhetoric, which is normally a static depiction of historical activities. It had to be broad enough to integrate relationships between individuals and groups while being relevant to overall organisational goals. It also had to be dynamic, growth orientated, and strategically linked as well as linked to other management processes.

The intervention began with the structure and nature of the task component. This meant addressing job definitions which are the organisational and formal system building blocks. They constitute both form and function since they set out accountabilities, define roles, mark territories, and eliminate overlaps and gaps (Brinkerhoff & Kanter, 1980; Nadler & Tushman, 1982). If jobs are clear, objectives become clear, and productivity a realistic pursuit (Huse, 1980).
However, even the clarification of jobs cannot be developed in isolation, rather they must reflect the correct relationships to each other and also be relevant to the organisation’s goals (Kilmann, 1989; Nadler & Tushman, 1982). Jobs should be designed for the long term; to reinforce the behaviour and output that the organisation perceives it needs to survive.

The first step was to redefine or confirm the tasks and outputs expected of each job. To ensure uniformity and provide a supportive resource, a new job description format was developed. And in line with the participative management philosophy, the actual job holders were made accountable to define their job content within this new protocol.

The next step was to develop skill profiles for each job description. This detailed the skills required to perform tasks and produce the desired job outputs. Again this was done participatively, providing resource aids to all staff and management.

Once this was completed all jobs which required the same family of skills were grouped into job families. These were then assembled into career nests and pathways - each pathway detailing relevant skills and recommending training plans to attain these skills.

Staff and management were encouraged to view the results as a beginning. The job descriptions and skill profiles when released were to be seen as working documents open to review and updating. It was hoped that this strategy would circumvent many of the traditional inflexible performance management issues as outlined in Chapter 4.
As can be seen, the intervention process was most concerned with alignment, focusing on creating interlocking formal systems between performance management, career pathing and training. It was hoped that through disclosure of how one system affects another all participants would view with serious intent each step of the process, and thus the quality of interaction would be improved, as is illustrated below.

Training should be seen as an investment by the organisation, an input in the process of building competencies. Through the participative and open nature of the process, all should know why different courses should be done. They should have an integrative framework to assess who should attend which courses.

Since each course is aligned to a specific, required skill attainment they should be able to measure direct relationships between skill attainment and on-the-job performance. A further advantage would be the enabling of management to assess the benefit of different training programs and schools, thereby making them more demanding customers for training and in the process ensuring their understanding of, and commitment to, training as an investment for themselves in managing their resources rather than as a handout or perk for their people.

On an individual level, it was hoped, increased commitment would be gained because training could now be coupled to incremental skills growth. It could be seen as enabling people to actualise career aspirations as well as directly impact on their performance. Furthermore, because the individual knew why training was required he or she would be able to represent themselves in deciding whether it was needed or not.
It was hoped that this discussion between superior and subordinate would be more open with less need for defensiveness on the part of the employee for they could tie the discussion to an objective standard. The benefit to both management and employees was that the career pathing mapped out a plan for training to be individualised and tied to increased output and performance for the organisation, as well as increased growth and skill acquisition for the individual.

2. Reward and recognition. During this phase other formal structures were also being aligned. It was vital to ensure that recognition and reward kept pace with what was desired by management. It would not have been appropriate to merely change the philosophy and redesign what was expected from tasks, without ensuring that these outputs expected would be recognised and focused on, in the content of the performance appraisals.

The renumeration philosophy was realigned to reflect and reward the desired values according to task definitions and skill competencies. All the formal systems, rules and procedures, were screened to ensure they were compatible with the amended transformational processes.

Once the organisation specified what it expected from different positions, as well as outlining the skill and knowledge required to deliver expected results, it was now in a position to manage the contribution of its people. However, there can be no change in performance unless people are recognised and rewarded for these changes. Modern, credible, and legitimate remuneration practice needed to be introduced. Renumeration and reward needed to be linked to job size and performance level.
An acceptable objective measure for job size was employed. The performance appraisal intervention now moved beyond the management-employee relationships to formalise and document the process achieved. The organisation now felt in a position to offer attractive and competitive pay practises, since it had integrated tasks and outputs with strategic organisational requirements.

Management now hoped to be in a position to manage performance realistically and honestly, in line with real organisational needs, and thereby to ensure that there would not be spiralling costs without spiralling growth.

There was real understanding and buy-in. Never before had management felt such a real link between their daily practices and their desired long-term strategic position. The staff too, felt valued and empowered, ready to utilise their systems for the gain of the organisation, understanding how they too were to benefit.

Phase 3: Performance appraisals as a feedback and integration mechanism

In a holistic intervention, integration between management processes is vital. Thus, in this particular organisation, the establishment of a fair and appropriate performance management system in an inappropriate environment where: the task definition was imposed, perhaps even redundant; the other formal systems belonged to the past being underpinned by bureaucratic even autocratic principles; the type of people in the organisation and the culture of the organisation did not support the appraisal system, would have been meaningless.
As described in Chapter 4, the failure of most interventions must be attributed to their lack of integration into the daily management practices of the organisation (Beer, 1989; Brinkerhoff & Kanter, 1980; Huse & Cummings, 1985; Peters, 1989). It was not enough to define jobs and skill levels, and to outline training curriculum and career paths.

For true completion, the cycle needed to be "closed" (Kilmann, 1989), that is, these changes needed to be cemented in terms of the psychological contract between employees and the organisation (Katz & Kahn, 1978; Klimoski, 1990: McGregor, 1972).

The intervention had to extend to how the individuals would be measured (Brinkerhoff & Kanter, 1980). (A copy of the performance management document is included in Appendix 1.)

For each job defined in the career path a corresponding performance criteria document was developed. This document outlined the elements of the job which were to be measured and illustrated how this measurement would take place.

It also defined different performance levels for each of the outputs expected of a job, that is, it helped the incumbent understand the difference between entry, competent and exemplary performance. These performance criteria were not developed by management and handed down - they were developed by groups of people at each job level.
These task forces were made up of elected representation; they were asked to communicate with the broader staff group and then submit their recommendations to management for ratification. Management reviewed the proposal, provided input and ensured standardisation. When both staff and management were satisfied, the performance standard was instituted.

This approach had two important advantages: (1) it was participative, and (2) it ensured that the appraisal system remained alive. By removing the sanctity of the document and opening it to the broadest debate, it was hoped that everyone would come to see it merely as a means to an end, and thereby constantly ensure it remained relevant and alive. A test of commitment to the process could be inferred from the large amount of interest and participation generated from both management and staff, in the development of the new performance criteria.

Conclusion

This completed the holistic intervention. Although the starting point had been to change the performance management system it had not been approached as a unitary intervention; an ad hoc change to be seen as an end in itself (Beckhard & Harris, 1987; Katz & Kahn, 1978). Rather, the organisation had been seen as a living entity where complexity necessitated that many interventions be initiated simultaneously in a parallel rather than linear fashion (Kilmann, 1989; Mohrman et al., 1989; Schein, 1970). The goal of the intervention was to operationalise a multi-faceted performance management process; to review inter-relationships and update allied organisational processes; to integrate all changes into the overall context of the outputs the organisation wanted to yield, within its environment and own competitive strategy.
A critical challenge had been to bring the people along and empower them. The objective for empowerment was to create understanding and thus build flexibility (Senge, 1990), as well as to decrease the destructive power gap between managers and subordinates.

The performance appraisal had been seen as only one aspect of organisational reality. As such, its linkages and relationships to other key transformational processes in all spheres had been identified and understood, so that appropriate change to allied systems could be made. An effective intervention must move the organisation to a desired state, where the combination of all transformational processes creates synergy and organisational development (Burke, 1987; Kilmann, 1989; Nadler and Tushman, 1982).

In a complex and demanding environment, organisations can only afford to embark on interventions which will move them to their desired position while adding value, so that they are able to survive, compete, and grow (Burke, 1987; Kilmann, 1989).
CHAPTER 6

CONCLUSION

This is a theoretical rather than empirical study. The central purpose of this paper is to illustrate the social systems paradigm as a unique and invaluable framework capable of presenting a response to the dynamic and complex challenges facing the modern day industrial psychologist and organisational development specialist.

Since literature reveals that most discussion and application of the framework has remained within the province of academics and experts (Senge, 1991), this paper not only highlights the opportunities of the paradigm but also uses a case study to illustrate the operationalisation of the framework within a South African organisation. Through this approach it is hoped that much of the criticism regarding the theoretical and abstract (Senge, 1991) nature of the framework will be addressed. Further it is hoped that the illustration will encourage far more actual experimentation and practical application of the framework, thereby enlarging its relevance and accessibility as well as leading to greater understanding.

Practical implementation of these theoretical tenets by social science professionals would create a situation where additional empirical data and opportunities would be available to validate and experiment with the theoretical claims of the paradigm. Thereby opening additional channel for even greater discovery and enlargement of the theory in the future.
This would enrich the ability of the social science profession to make an even more meaningful contributions to the modern world of work and specifically to the effective management of its organisations. Ideally this would make an important contribution to leaders and stakeholders who are becoming increasingly strapped for creative options as the world becomes more complex and the challenges for survival and relevance become even greater. Especially since current business literature (Duck, 1993; Koopman, 1991; Mohrman et al, 1989) makes no secret of the fact that conventional business solutions can no longer provide the desired end results.

In order to highlight the points regarding the lack of application of the social systems paradigm as well as demonstrate most easily the actual approach of implementing an intervention from this paradigm; it was decided to focus on a particular organisational topic namely performance appraisals.

By focusing in on a specific topic it was possible to illustrate through specific references the points of difference and distinction between traditional approaches and that of the social system framework. Thus the performance appraisal aspects of this paper are intended to provide tangible illustration of the principle claims made with respect to the social system paradigm. They are quoted as an example in order to make the points of the paper clearer, more impactful and pragmatic.

In broad terms this paper defines the social systems paradigm, identifies it as an evolutionary paradigm based on the incremental development and progressive idea generation of systems thinkers. Then, in order to highlight the social system premises and distinguish them from the mental models being utilised in most social science literature the paper focuses on performance appraisals. It utilises the literature about this subject to demonstrate the point regarding the lack of systems thinking as articulated in previous chapters.
Further by focusing on a specific and important organisational component it also allows the opportunity to describe more clearly what the alternative could be; that is how a performance appraisal intervention should be implemented if the framework was the social systems paradigm.

Chapter 5 is a case study. This was chosen in order to address even more directly the criticism regarding the abstract nature of the social system paradigm. By describing actual work done it is hoped that the paradigm and its benefits will become clearer to those working in industry.

The need for future research

This study indicates a starting point. Its primary purpose is illustrative and descriptive. However, since the need for assistance, and indeed a contribution, from social scientists to the business sector is great, it now becomes important to verify empirically the benefits that a planned change interventions can bring to bear not only on short term organisational performance, but also long term relevance and viability.

The broad lessons of change receiving popular attention will need to be scrutinised through empirical research to ensure that the principles and trends being espoused are in fact causally related to improving and developing organisations.

In South Africa alone, the forces for change are well beyond the control of any linear or simplistic change model and the need to offer some value-adding contribution is clear.
In this pursuit it is hoped that a small contribution has been made. A process begun whereby the newest thinking will be debated and applied to yield some benefit in helping to guide effective transformations and building healthy organisations. Perhaps it will even be able to make a contribution to managing the development and transformation of the country as a whole.

"If we felt we were operating at the limits of our thinking system, there would be little hope. We would look forward to a future in which the increasing problems would overwhelm us. With an emphasis on new thinking we can rekindle hope for a much better future. Revolutions do not have to be negative. Positive revolutions can take place. And the first such revolution must be in our thinking. Thinking is not just being right and avoiding error. Thinking is exploration, new concepts and design for a better future" (de Bono, 1990).
REFERENCE LIST


<table>
<thead>
<tr>
<th>REF</th>
<th>CRITERIA</th>
<th>MEASURES</th>
<th>PERFORMANCE LEVELS</th>
<th>SCORE</th>
<th>W.T.</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>1.</td>
<td>TRAINING</td>
<td>Self Development – Initiative to actively seek out what you need to know to do the job.</td>
<td>High: Uses manuals to improve own knowledge. Develops an understanding of systems being worked on and M/I.</td>
<td>5</td>
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<td></td>
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<td></td>
<td>Competent: Uses manuals to get job done. Develops a basic understanding of M/I.</td>
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<td></td>
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<td>Entry: Asks where to find information. Recognised COBOL course.</td>
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<tr>
<td>2.</td>
<td>PRODUCTIVITY.</td>
<td>Objectives: Satisfactory and timely completion of prescribed work.</td>
<td>High: Successfully completes all tasks on time.</td>
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<td></td>
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<td></td>
<td>Competent: Completes 70% of tasks on time.</td>
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<td>Entry: Has still to become familiar with Pyramed standards and receives regular assistance.</td>
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<tr>
<td>3.</td>
<td>SKILLS COMPETENCY.</td>
<td>Ability to apply the technical skills learnt.</td>
<td>High: Code and test with no supervision. Unit test and document assigned programs with supervision according to Pyramed standards.</td>
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<td></td>
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<td></td>
<td>Competent: Code and test from detailed specifications with little supervision. Develop workflows to run own jobs.</td>
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Total Score:
## PERFORMANCE ASSESSMENT

### JUNIOR PROGRAMMER

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<tr>
<td>1.</td>
<td>TRAINING.</td>
<td>Self Development - Initiative.</td>
<td>HIGH 5</td>
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<td></td>
<td>Formal Training.</td>
<td>Competent 3</td>
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<td>PRODUCTIVITY.</td>
<td>Objectives: Satisfactory and</td>
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<td>timeous completion of prescribed</td>
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<td>work.</td>
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<td>Ability to assist and monitor</td>
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<td>junior staff.</td>
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<td>3.</td>
<td>SKILLS COMPETENCY.</td>
<td>Ability to apply the technical</td>
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<td></td>
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<td>skills learnt.</td>
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<td>4.</td>
<td>SUPERIOR'S ASSESSMENT.</td>
<td>Initiative.</td>
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<td>Sense of Urgency.</td>
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**Total Score**
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<td>HIGH 5</td>
<td>COMPETENT 3</td>
</tr>
<tr>
<td>1.</td>
<td>TRAINING</td>
<td>Self Development - Initiative to actively seek out what you need to know to do the job.</td>
<td>Has superior skills and knowledge due to own initiative in learning for the next level. Has a good knowledge of the business area of the system being developed.</td>
<td>Actively tries to improve skills and learn more. Is aware of the business area of the system being developed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Formal Training.</td>
<td>Competency in all training courses skills as prescribed. Has good understanding of other Perm systems and of M/1.</td>
<td>Competency in 70% of training courses skills as prescribed. Has some knowledge of other Perm systems and of M/1.</td>
</tr>
<tr>
<td>2.</td>
<td>PRODUCTIVITY.</td>
<td>Ability to complete prescribed work on time and according to standards.</td>
<td>Completes all work on or ahead of time with no bugs and according to standards. Often achieves more than given tasks and suggests ways of improving.</td>
<td>Completes all work on time. Seldom needs assistance and works to Pyranol’s standards.</td>
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<td></td>
<td></td>
<td>Ability to assist and monitor junior staff.</td>
<td>Displays superior abilities and high interest in successfully encouraging, and technically assisting juniors.</td>
<td>Is competent and willing to assist juniors.</td>
</tr>
<tr>
<td>3.</td>
<td>SKILLS COMPETENCY.</td>
<td>Ability to apply the technical skills learnt and be self supportive.</td>
<td>Can successfully code, document, test, debug and review programs and workflows with no supervision. Is fully competent at developing unit test conditions and data. Anticipates problems before they occur. Knowledge of how database and DMSU work.</td>
<td>Can successfully code, document, test, debug and review programs and workflows. Can develop unit test conditions and data competently.</td>
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### PERFORMANCE ASSESSMENT
#### PROGRAMMER

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<td><strong>HIGH</strong> 5</td>
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<tr>
<td>3.</td>
<td>SKILLS COMPETENCY</td>
<td>Relating Technical and Business Skills</td>
<td>Shows skill and initiative in performing code reviews. Is proficient in conducting system tests and is an active participant in system conversion.</td>
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<tr>
<td></td>
<td>Continued.</td>
<td></td>
<td><strong>COMPETENT</strong> 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is competent in performing code reviews. Participates in system tests and conversions.</td>
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<td><strong>ENTRY</strong> 1</td>
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<td></td>
<td>Participates in code reviews. Is still learning about system tests and conversions.</td>
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<td>4.</td>
<td>SUPERIOR'S ASSESSMENT.</td>
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<td><strong>SCORE</strong> 20</td>
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Total Score

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# PERFORMANCE ASSESSMENT

## SENIOR PROGRAMMER

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<th>SCORE</th>
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<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>TRAINING</td>
<td>Self Development - efforts originated by self to improve. Establishes own training program. Uses manuals and looks for additional information. Places emphasis on improving programming skills and expanding knowledge base both with both technical and business skills.</td>
<td>HIGH 5</td>
<td>COMPETENT 3</td>
<td>ENTRY 1</td>
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<td></td>
<td></td>
<td>Formal Training - Success in advanced training concepts. Does exceptionally well in training courses and applies relevant skills effectively. Analyses training needs of juniors and generates ideas for future training. Shows initiative to gain additional business and technical skills.</td>
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<td></td>
<td>Uses manuals for guidance to assist in solving problems. Actively seeks exposure to Pyramid's technical and business environment. Has been successfully trained in all relevant skills. Is able to apply skills learnt on courses. Completed all courses relevant to at Programmer level.</td>
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<tr>
<td>2.</td>
<td>SKILLS COMPETENCY. Ability to develop an effective test model. Displays outstanding ability to develop test model. Shows good attention to detail in compiling test conditions, data and expected results. Is fully capable of reviewing test models. Ability to work independently. Able to independently gather relevant information and successfully applies developed skills in the designing, coding and testing of complex programs. Decision Making. Ability to direct action and/or make decisions. Able to identify potential problems and to take action to resolve them. Handles system problems with confidence. Is pro-active in ensuring problems do not occur.</td>
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<td>Contributes effectively towards developing test models. Is able to effectively review test models.</td>
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<td>Shows ability to work independently at the Programmer level. Requires assistance with design of more complex programs. Displays initiative in solving systems problems.</td>
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-1-
# PERFORMANCE ASSESSMENT

## SENIOR PROGRAMMER

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<tr>
<td>3.</td>
<td>PRODUCTIVITY.</td>
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<tr>
<td></td>
<td>Quality and efficiency of work.</td>
<td>Frequently achieves more than laid down objectives with a high degree of efficiency and effectiveness.</td>
<td>HIGH 5</td>
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<tr>
<td></td>
<td>Management of time.</td>
<td>Realistic and accurate in developing project task estimates. Has ability to manage time effectively in a crisis.</td>
<td>COMPETENT 3</td>
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<tr>
<td></td>
<td>Management of technical resources.</td>
<td>Has a thorough understanding of the technical environment and uses this knowledge effectively to meet objectives.</td>
<td>ENTRY 1</td>
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<tr>
<td></td>
<td>Management of People.</td>
<td>Is fully aware of the job descriptions of subordinates. Has an exceptional ability to delegate and monitor progress. Makes valuable suggestions towards clarifying job descriptions of subordinates.</td>
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<td>4.</td>
<td>PEOPLE SKILLS</td>
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<td></td>
<td>User and Team Interaction.</td>
<td>Offers spontaneous guidance and communicates tactfully. Ability to communicate unambiguously at all levels. Offers clear and concise arguments. Has gained full confidence of business associates. Has patience and understanding. Is impartial and welcomes constructive criticism.</td>
<td>HIGH 5</td>
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<tr>
<td></td>
<td>Attitude, Initiative, Loyalty, Responsibility.</td>
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Total Score