

THE UNIVERSITY OF HULL

**Interaction with Rule-Bound Systems: Introducing a new 'ideal-type'
problem context**

**being a Thesis submitted for the Degree of
Doctor of Philosophy
in the University of Hull**

by

John Clayton BA , MA, MBA

November 2004

Summary of Thesis submitted for PhD

by John Clayton

on

**Interaction with Rule-Bound Systems: Introducing a new ‘ideal-type’
problem context**

This PhD thesis introduces a new ideal-type problem context of rule-bound systems. The thesis has been generated through a belief in the ability of metaphor to make the abstract visible, its capacity to make the unfamiliar familiar, and its effectiveness as a legitimate means of generating insight and organizing knowledge. Metaphorical description remains an integral part of this thesis from beginning to end.

It shows how the new context of rule-bound systems provides closure of the ideal problem context grid along the participants access. Following the ideas that created the basis for this closure, insight into a new role for systems practitioners is provided and the ideal problem context grid developed to form of a Torus.

Part 1 outlines the theoretical foundations and other inspirations that underpin the thesis. Grounded on a wider definition of rules, including rules in both a formal and informal sense, multiple ways of viewing rules are highlighted. The characteristics of rule-bound systems are identified, drawing comparisons with other 'ideal-types'. Suggestions are also drawn out as to how change might be affected in a rule-bound context. Part II of this thesis is an account of a real world intervention informed by Critical Systems Thinking, carried out under the auspices of Participatory Action Research. A number of systems research methods and concepts were employed to investigate the participation of students in policy making in two contrasting senior schools in the North of England – organizations believed to present many of the characteristics of the rule-bound system. The approach used was one mixing methods, specifically, the creation of a symbiotic relationship between Soft Systems Methodology and Critical Systems Heuristics. Part III describes the process of reflection undertaken and the conclusion to the thesis.

Acknowledgements

I would like to begin by thanking Flight Lieutenant Harry Welch (Royal Air Force) who's belief in my abilities paved the way for my academic achievements.

The Teachers, Staff and Parents who gave up their valuable time to participate in the practical aspects of my research. And, especially the Students of both schools who proved time and again, with their unique brand of honesty, that they are more than capable of forming and expressing their own well considered and informed opinions.

I would also like to thank: Mandy Brown for her assistance in facilitating the workshop sessions with the participants, and for her continued support in general. And, Dr Wendy Gregory who, as my Academic Supervisor, provided the most suitably supportive and intellectually challenging environment, which has proved to be invaluable.

Finally, I would like to thank my examiners, Prof. Brian Lehane and Dr Gerald Midgley, for their constructive feedback and incisive critique which led to the finished product.

For everyone who ever called me 'stupid'!

Table of Contents

1	Introduction	1
1.1	Summary of the Chapters	2
2	Background	11
2.1	Introduction	11
2.2	The Starting point!.....	11
2.3	It's those 'rules' again!	12
2.4	Theory, Practice and Experience.....	13
3	Systems Thinking	14
3.1	Introduction	14
3.2	From 'Hard' to 'Soft' to 'Critical' Systems Thinking	15
3.3	An Alternative View	15
3.3.1	Tektology and General Systems Theory	16
3.3.2	A comparison from the texts.....	17
3.3.3	Isomorphism and Analogy.....	18
3.3.4	Bertalanffy and Isomorphism	18
3.3.5	Bogdanov and Analogy	19
3.3.6	General Systems Theory and Tektology.....	20
3.4	Hard Systems Thinking.....	21
3.5	Cybernetics	22
3.6	Management Cybernetics and Organizational Cybernetics	24
3.7	Soft Systems Thinking	25
3.8	The 'Evolution' Metaphor	27
3.9	What is this thing called Critical Systems Thinking (CST)?.....	28
3.9.1	Human Emancipation	32
3.10	The System of Systems Methodologies	32
3.10.1	Establishing the Framework.....	33
3.10.2	Classification of Systems Approaches.....	35
3.10.3	Benefits of the System of Systems Methodologies.....	38
3.10.4	Critiques of System of Systems Methodologies.....	39
3.10.5	The Creative Design of Methods.....	41
3.11	The 'Comet' Metaphor	43
4	Research	46
4.1	Introduction	46
4.2	Initial reflection	46
4.2.1	What kind of research do I want to do?.....	49
4.2.2	What level could my work contribute to?.....	49
4.2.3	What kind of system do I want to engage with?.....	50
4.2.4	What do I want to do?	51
4.2.5	What kind of role do I want to play?	51
4.2.6	What kind of contribution do I want to make to the host system?.....	52
4.2.7	What kind of overall strategy should be adopted?.....	52
4.3	Ethnographic Research and Participatory Action Research: A comparison... 53	
4.3.1	Introduction.....	53
4.3.2	The Character of Ethnographic Research (ER)	54
4.3.3	The character of Participatory Action Research PAR	55
4.3.4	Comparing Ethnographic Research and Action Research	55
4.3.5	Reliability	57
4.3.6	Validity	58
4.3.7	Representativeness.....	59
4.3.8	Conclusion.....	60
4.4	What kind of Systems methodology would fit with a Participatory Action Research strategy?	61
4.4.1	Identifying a suitable systems oriented methodology.....	61
4.5	Soft Systems Methodology (SSM).....	62
4.5.1	Soft Systems Methodology: a spectrum of use.....	66

4.5.2	What are the weaknesses of SSM?	68
4.5.3	SSM and Validity	69
4.5.4	Different paradigms, different aims, different validity	70
4.5.5	Universal or specific knowledge?	70
4.5.6	Achieving validity in action research	71
4.5.7	Soft systems methodology as an inquiry process	71
4.5.8	Summary	73
4.6	Can SSM be adapted?	73
4.7	Similarities between SSM and CSH	74
4.7.1	Evolutionary Origins	76
4.7.2	Mixing Methods	79
4.7.3	Constitutive rules	85
4.8	Project Design	87
4.8.1	The case-study or 'now' design	88
4.8.2	Narrative case studies	90
4.8.3	Single-case experiments	91
4.8.4	Issues in case-study research	92
4.8.4.1	Generalization	93
4.8.4.2	Writing up case study research	93
4.8.4.3	Case study validity	94
5	Research Project Background	95
5.1	The Voice of the Child	95
5.2	What is a Child?	97
5.3	Childhood as an elusive concept	98
5.4	Childhood as an 'invading' norm	99
5.5	The UN Convention: definition of the 'child'	101
5.6	The 'child' with regard to my own research	101
5.7	Children's Rights	102
5.8	Children's Voices	103
5.9	Summary	105
6	Research Proposal	106
6.1.1	Introduction	107
6.1.2	Background	107
6.1.3	Aims	109
6.1.4	Relevance	110
6.1.5	Methods	111
6.1.6	Data collection phase	111
6.1.7	Planning workshops	113
6.1.8	Evaluation	117
6.1.9	Dissemination	117
6.1.10	Conclusion	118
7	Project Phase I	121
7.1	Introduction	121
7.2	Data collection	123
7.3	Interviews	125
7.3.1	Structured Interviews	126
7.3.2	Semi-structured Interviews	126
7.3.3	Unstructured Interviews	127
7.3.4	Group Interviews	127
7.3.5	Linking Interviews and Research	128
7.4	Observation	129
7.5	Metaphors used to describe current situation in the Failing School	130
7.5.1	The Lone Ranger Metaphor	130
7.5.2	The Animal Farm Metaphor	132
7.5.3	The Champagne Tower Metaphor	132
7.5.4	The Light at the End of the Tunnel Metaphor	133
7.6	Rich Picture	133

7.7	Issues identified	134
7.7.1	'isms' and 'ists'	136
7.7.2	'Garbage IN = Garbage OUT'	136
7.7.3	'Educate' or 'Equip'?.....	138
7.8	Emergent themes.....	138
7.8.1	Top down policy/decision making	139
7.8.2	Autocratic management style.....	139
7.8.3	Participation and Consultation.....	139
7.8.4	Summary	140
7.9	Metaphors used to describe the current situation in the Successful School ..	141
7.9.1	The Pushing Paint Up Hill Metaphor	141
7.9.2	The Holiday Brochure Metaphor	141
7.9.3	The Sea Metaphor.....	142
7.9.4	The Team Metaphor.....	142
7.9.5	The Mushroom Metaphor.....	142
7.10	Rich Picture.....	143
7.11	Issues identified	143
7.12	Commonalities	145
8	Project Phase II.....	146
8.1	Introduction	146
8.2	Facilitation style.....	146
8.3	Workshops	148
8.4	Saga cards.....	149
8.5	Question format.....	152
9	Reflection.....	154
9.1	Introduction	154
9.1.1	What were the specific factors that helped participation?.....	154
9.1.2	What were the specific factors that prevented participation?.....	155
9.1.3	What metaphor best describes the experience of the project?.....	157
9.1.4	Has the type/character of the issues generated changed as a result of the project?	158
9.1.5	Has the type/character of the problem solving methodology changed?.....	158
9.1.6	What have I learned about problem solving from as a consequence of participating in the research project?.....	159
9.1.7	What has been of greater importance, the outcome or the process itself?	159
9.1.8	What could have been done better?	159
9.1.9	Where there any important issues that were not surfaced during the project?	160
9.1.10	Were the principles of being systemic, achieving meaningful participation, being reflective and the goal of enhancing human freedom upheld?.....	160
9.1.11	What were the difficulties of researching in the school environment? ..	161
10	Rules	162
10.1	Introduction	162
10.2	Defining 'Rules'	164
10.2.1	Rules as the creation of human actors.....	168
10.2.2	Rules as structures standing over and above actors	169
10.2.3	Rules as negotiated order	170
10.2.4	Rules as the dictates of powerful actors	172
10.2.5	Rules as sense making phenomena	173
10.2.6	Rules of control	177
10.2.7	Rules as deliberately created phenomena.....	181
10.2.8	Rules arise out of situations	182
10.2.9	Rules lack universality.....	183
10.2.10	Rules are not always known	185
10.2.11	Rules as misunderstandings.....	186
10.2.12	Rules are resisted	186

10.2.13	Rules and spaces	187
10.2.14	Rules as historical phenomena.....	188
10.2.15	Rule intersection in the establishment of organizations	190
10.2.16	Organizational rules are informed by meta-rules.....	190
10.2.17	Rules as gendered phenomena.....	191
10.2.18	Rules are not static:	193
10.2.19	Rawls' Two concepts of Rules.....	194
10.2.20	Written rules of conduct may conflict with unwritten rules	196
10.3	Conclusion	197
11	Rule-bound Systems	198
11.1	Characteristics of rule-bound systems.....	199
11.2	Rule-bound Systems and Bureaucracies	204
11.3	Affecting Change in Rule-bound Systems	204
11.3.1	The Governmental Politics Model	205
11.3.2	Interacting frameworks of rules	208
12	A New Ideal Type	211
12.1	Introduction	211
12.2	How do rule-bound problem contexts differ from other ideal problem contexts? 212	
12.3	Complexity in Human Systems.....	215
12.3.1	What I think happens!.....	223
12.4	System of Systems Methodologies as a Torus.....	229
12.5	Conclusion	230
13	Conclusions	231
13.1	Introduction	231
13.2	'Bridging theory, methodology and practice'	231
13.3	'Learning from failure'.....	231
13.4	Development of rule-bound contexts for the SoSM	232
13.5	Further development of the System of Systems Methodologies Torus.....	232
13.6	Possibilities for future research.....	232
	References	233

Figures

Figure 1	Grid of Ideal problem contexts.....	35
Figure 2	Systems Thinking and the problem context grid.....	37
Figure 3	System of Systems Methodologies.....	38
Figure 4	The Comet	43
Figure 5	Illustration of the orbit of Haley's comet.....	44
Figure 6	Diagram of the research process.....	48
Figure 7	Soft Systems Methodology Diagram	65
Figure 8	SSM in use in Mode 1 and Mode 2.....	66
Figure 9	Decomposition of SSM showing alternative CSH method.....	82
Figure 10	Rich Picture Inner City School.....	135
Figure 11	Rich Picture Suburban School.....	144
Figure 12	Workshop questioning model	153
Figure 13	The main factors that influence the emergence of the resultant action.....	208
Figure 14	An individual's framework of rules	209
Figure 15	Grid of Ideal problem contexts as a Cylinder.....	212
Figure 16	Extended Grid of Ideal problem contexts.....	213
Figure 17	Extended Grid of Ideal problem contexts as a cylinder	214
Figure 18	Multiplicity of perspectives	216
Figure 19	Three levels of complexity	217
Figure 20	Mathematical complexity.....	218
Figure 21	A measure of complexity.....	219

Figure 22	Langston's depiction of complexity	221
Figure 23	Weaver's three bands of complexity	221
Figure 24	Process of inquiry when time is short or capacity is low.....	227
Figure 25	Process of inquiry when increased time or capacity is available.....	229
Figure 26	Ideal Type problem context grid as a Torus	230

Tables

Table 1	Notes on the research process diagram.....	47
Table 2	Constitutive and strategic rules of the Soft Systems Methodology.....	85
Table 3	Constitutive rules – characterising the whole spectrum of use of SSM.....	86
Table 4	Systematic assessment of single-case experiments	91
Table 5	Timetable as attached to the research proposal.....	120
Table 6	Summary of Schools Contacted	122
Table 7	Summary of issues addressed Year 7 student council.....	131
Table 8	Typology of rules.....	180
Table 9	Examples of reasons for compliance with rules.....	184

Appendices

Appendix I	AI-1 : AI-23
Appendix II	AII-1 : AII-6
Appendix III	AIII-1 : AIII-7
Appendix IV	AIV-1 : AIV-16

1 Introduction

This thesis, can best be described as an ‘emergent thesis’. It is the product of an iterative, some might say (r)evolutionary process, and has been developed through the dynamic interaction of theory, practice, and personal experience. The practical aspect of the research process set out to encourage improvements in the participatory experiences in decision making/influencing of young people in school. The two schools with which the research took place represented opposite ends of the spectrum. One an ‘inner city’ school standing in a deprived area and, at the time, in ‘special measures’, the other, a ‘suburban’ school with a solid reputation in academic performance located in a desirable ‘upmarket’ suburb in the same geographic region. It was through the trials and tribulations of this project, and its eventual premature closure, that the concept of the ‘rule-bound’ organization as a new ideal-type problem context was crystallized. And, the reshaping of the System of Systems Methodologies as a Torus was developed.

Metaphor is such an essential part of the way I make sense of myself, my world, and my relationship with ‘my’ research, that it would be counterlogical not to include my own take on metaphor, my belief in its power and its potential for the research process within this thesis. So, with this in mind, Appendix I describes some of the many ways in which metaphor can be explained, a brief summary of the two main standpoints with regard to its usefulness, or not as the case may be, as a serious tool for discovery. Thus, illustrating my own belief in the ability of metaphor to make the abstract visible, its capacity to make the unfamiliar familiar, and its effectiveness as a legitimate means of generating insight and organizing knowledge.

1.1 Summary of the Chapters

There now follows a short summary of each of the remaining chapters.

Chapter 2. Background

I have heard it said that ‘...you cannot know where you are going, unless you know where you are coming from’. So, Chapter 2 contains relevant brief information on my own background, the point in time that - with some degree of post-hoc rationalization – my interest in things academic was aroused and, my conceptual awareness of ‘rules’ was awakened, how a postgraduate research project brought the concept of ‘rules’ into focus. How I saw research into student participation in schools decision making processes as an ideal opportunity to harness my own know-how in terms of theory, practice, and experience.

Chapter 3. Systems Thinking

The endeavour of Systems Thinking in the UK has been through a process of significant and ongoing change over the last 20 years or so. With this in mind Chapter 3 provides a brief history of systems thinking from its early beginnings, in the tradition of the positive rationality of the hard sciences, through the approach of Cybernetics, to the appearance of Soft Systems Thinking based in the interpretive paradigm and, finally, to the emergence of Critical Systems Thinking incorporating processes of critique and reflection.

The history of Systems Thinking is recounted in a way which reflects the traditional view of its development, based upon the customary trilogy – hard, soft, and critical systems approaches as above. However, a brief overview of an alternative point of origin is also presented in the form of Bogdanov's *Tektology* or the 'Universal Science of Organization' (1912-1922) which was largely ignored due to factors concerning politics and timing, until interest in Bogdanov's work was rekindled in the 1960s. *Tektology* bears a more than passing resemblance to *General Systems Theory* (for example: Bertalanffy, 1985). This particular section contains a direct comparison of the texts, the concepts of 'analogy' and 'isomorphy' respectively and, evidence of the four main postulates of General Systems Theory within the *Tektology* itself.

The question: what is this thing called Critical Systems Thinking? is presented as the *Holy Grail*, before two of its most significant methodological embodiments are described – the System of Systems Methodologies and the Creative Design of Methods - both of which have major impacts on this thesis. Firstly, it is through my own interpretation of the Creative Design of Methods that the methods used in the practical research were identified. Secondly, it is the development of the System of Systems Methodologies into a *Torus* which forms one of the main theoretical contributions of the thesis.

The final part of Chapter 3 presents, in addition to the customary 'evolutionary' account of the rise of Systems Thinking, my own very personal view of its development using the *comet* metaphor as a vehicle.

Chapter 4. Research

Chapter 4 on research begins with an overview of the initial process of reflection undertaken in order to make sense of the then future ahead. It is focused around objects of reflection, the questions posed and the issues concerned:

- What kind of research do I want to do?
- What level could my work contribute to?
- What kind of system do I want to engage with?
- What do I want to do?
- What kind of role do I want to play?
- What kind of contribution do I want to make to the host system?
- What kind of overall strategy should be adopted?

The process itself is summarised in both table and diagrammatic form. The description of the initial reflection is then followed by a more formal discussion of the outcomes and issues raised, including some the grounds upon which the overall design of the research may be criticised reliability, validity and representativeness – especially by those outside the systems host paradigm. I understand that employing this particular approach of cycling from informal reflection to more formal discussion may seem alien to some, and at times a little confusing. However, it is a far more accurate representation of the initial reflective processes than say a constructed linear presentation of a post hoc rationalisation.

Following on from What kind of overall strategy should be adopted? Is a description of some of the initial reflection undertaken regarding an overarching research strategy - Participatory Action Research, finding a suitable systems methodology – Soft Systems Methodology and, the adaptations believed necessary to take account of local circumstances – using Critical Systems Heuristics.

Chapter 5. Research Project Background

Chapter 5 describes the concept of the ‘Voice of the child’ that was the inspiration for the initial proposal for research funding that eventually led to the practical field work – based on the UN Convention on the Rights of the Child and the Children Act 1989 thereafter. This is based around four main questions:

- What is a ‘Child’?
- What is it that constitutes ‘Childhood’?
- What might be considered to be the basis for ‘Children’s Rights’?
- What is meant by the phrase ‘Children’s Voices’?

In answering these questions I explain how the concept of child is not only an elusive one but also a relatively modern Western invention. Before outlining the UN Definition and in particular the ‘child’ with regard to my own research.

As far as the UN convention is concerned it is Article 13 that informs the rationale for both the Schools project and the method of engagement. Article 13 States:

The child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child’s choice.

UN Convention on the Rights of the Child

Chapter 6. The Research Proposal

Chapter 6 is essentially the research proposal as put to the schools in its original format. The proposal was drawn up with two main factors in mind. Firstly, that the focus of the research should be on young people and, secondly that the organizational setting was that of a ‘regulatory’ system. The proposal itself consists of: Introduction and Background sections, followed by sections headed

Aims, Relevance, Methods, Data Collection Phase, Planning Workshops, Evaluation Dissemination and, finally, Conclusion. This chapter ends with a timetable for the research process.

Chapter 7. Project Phase I

Chapter 7 is a description of the initial investigative activities of phase 1 of the research project which took place in two secondary schools. It begins with a brief overview of the initial approaches made to a total of 20 Secondary schools – 14 City Schools and 6 Suburban schools in the same geographic area.

It describes the metaphors used by participants to convey a sense of the current situation, in their school, regarding decision and policy making processes:

Inner City School:

- The Lone Ranger
- Animal Farm
- Champagne Tower
- Light at the End of the Tunnel

Suburban School:

- Pushing Paint Up Hill
- Holiday Brochure
- The Sea
- The Team
- The Mushroom

Rich Pictures are developed and themes drawn out, before commonalities are identified between the two participating schools.

Chapter 8. Project Phase II

Chapter 8 recounts the second phase of the practical research project containing the workshops held with the student and adult participants. The ‘facilitation style’ is described before the simple ‘rules of participation’ are listed. Here to the ‘Saga Cards’ used to draw out metaphorical descriptions of ‘life in school’ are introduced. The metaphors generated are then categorized under ten themes:

- Education style
- Relationships with adults
- Organizational/environment rules
- Organizational image
- Physical environment
- Personal orientation
- Relationships with peers
- Social/leisure environment
- School facilities
- School decision making

The style of questioning used in the workshop was both simple and direct, based as they were on two main issues – i.e., What should we be asked about? and What shouldn’t we be asked about? Augmented by the ‘six honest men’ of: What, Why, When, How, Where and Who (Kipling, 1902).

Chapter 9. Reflection

In Chapter 9 reflection about the practical aspect of the research is outlined using a number of key questions:

- What were the specific factors that helped participation?
- What were the specific factors that prevented participation?
- What metaphor best describes the experience of the project?
- Has the type/character of the issues generated changed as a result of the project?
- Has the type/character of the problem solving methodology changed?
- What have I learned about problem solving from as a consequence of participating in the research project?

- What has been of greater importance, the outcome or the process itself?
- What could have been done better?
- Where there any important issues that were not surfaced during the project?
- Were the principles of being systemic, achieving meaningful participation, being reflective and the goal of enhancing human freedom upheld?
- What were the difficulties of researching in the school environment?

Chapter 10. Rule-Bound Systems

In Chapter 10 provides a description of a wider definition of rules in both a formal and informal sense, and different ways of viewing rules are highlighted. The core of this material follows closely the 17 way of viewing rules developed by Mills and Murgatroyd (1991). Other authors views on rules are also represented (for example, Clegg, 1981). However, most if not all of these are encompassed with the Mills and Murgatroyd schema:

- rules as the creation of human actors
- rules as structures standing over and above actors
- rules as negotiated order
- rules as dictates of powerful actors
- rules as sense-making phenomena
- rules of control
- rules as deliberately created phenomena
- rules arise out of situations
- rules lack universality
- rules are not always known
- rules as misunderstanding
- rules are resisted
- rules and spaces
- rules as historical phenomena
- rule intersection in the establishment of organizations
- organizational rules are informed by meta-rules
- rules as gendered phenomena

Chapter 10. Rule-Bound Systems

Chapter 10 introduces the concept of rule-bound systems. Suggesting that some problematic situations, which may cut across several sub-sections or departments of an organization, appear to be constrained by the mind-sets of the actors within them who exhibit rule-bound behaviours - it is these situations that I have termed Rule-bound Systems. Rule-bound System will be defined as generally involving:

- people who subscribe to some higher level interests determined outside their sphere of influence, but without necessarily sharing other aspects of the higher level viewpoint;
- people whose values and beliefs are likely to conflict;
- a view that both means and ends are outside the sphere of influence of the actors, making compromise apparent rather than 'real';
- a sub-set of all actors are able to make decisions that are 'legitimated' by the rules and thus accepted by others; and
- people who act in accordance with 'given' objectives, with no process recognized as being able to effect a 'genuine' agreement under present systemic arrangements.

Their characteristics are identified, before comparisons are drawn with other 'ideal-type' problem contexts. Suggestions are also drawn out as to how change might be affected in a rule-bound context.

Chapter 11. A New Ideal Type

Chapter 11 introduces the ideal problem context of 'Rule-bound' Systems into the ideal problem context grid that underpins the System of Systems Methodologies. This process begins with Dudley's notion that the 2 dimensional representation of the System of Systems Methodologies as a 'bi-polar continuum' is flawed (Dudley, 1996). Put simply, 'perfect coercion = perfect unity', therefore, the System of Systems Methodologies would be better represented as 'cylindrical' in its shape.

Although Dudley's argument is logically sound, I had always felt that there must be something in between – now, that something is the 'Rule-bound' ideal problem context. Having established the closure of the loop along the 'participants' dimension, a attention is then turned to the 'systems' dimension. My own take on complexity in human systems is laid out before the concept of providing closure along the participant dimension is then extended to the systems dimension, the result being the conception of the System of Systems Methodologies as a Torus – and with it the suggestion of a new role for systems practitioners.

Chapter 12. Conclusion

Chapter 12 provides the conclusion to the thesis. Summarizing the contributions of this thesis, drawing out four main points: bridging theory, methodology and practice; learning from failure; the introduction of 'rule-bound systems' as an ideal problem type context and, the subsequent development of the System of Systems Methodologies.

2 Background

2.1 Introduction

I have for most of my life been involved with organizations whose very reason for existence has been *social regulation* in one capacity or another: regulatory systems - intended to promote social integration and to maintain Society at large. In my case these have taken many forms, for example, Schools, HM Forces, Universities, HM Prisons and the Police, to name but a few. Yet, it is without doubt my experience of one of these organizations in particular that initially led me back into further education, academia and, ultimately, to the production of this thesis. So, I would like to begin this chapter entitled 'Background' by explaining how it was that I came to embark upon my educational voyage. And, how with hindsight I can identify that it was a 'rule', or more accurately, in spite of a 'rule' that the whole process began.

2.2 The Starting point!

As a serving member of Her Majesty's Forces I was entitled to benefit from educational courses – free of charge - for one or more of the following reasons (in no particular order): to further my career development, to further my personal development and, to prepare myself for a return to civilian life. So, I applied to undertake my planned studies in 'management' referring to all the above with the added comment: '*to create options*'! I had requested permission to sign up for a series of integrated modules delivered by distance learning. Only to be told that as a Junior Non-Commissioned Officer I was not allowed to opt for education via a 'correspondence course'. The reason being that other ranks (i.e., those who do

not hold the Queen's Commission) were incapable of demonstrating the kind of commitment required to successfully complete such a course of study. Therefore, the 'rule' was that correspondence courses were only made available to 'Officers'. There was no way around this, for we all know that 'rules are rules! Now, however indirectly, this 'rule' was the starting point for my educational journey. Looking back now, I can see how an element of experiential learning, (i.e., the high drop-out rate of 'Other Ranks') had first become codified, and then reified – truly cast in stone. As I was powerless to change the 'rules' I began my (re)education by attending first evening, and later day release classes at the local College of Further Education. In all fairness, I should add that knowing what I know now, I am the first to admit that my 'self' would more likely than not have failed to complete such a correspondence course at that time. However, that fact in no way diminishes my belief in the inappropriateness of such 'rule' in the first instance.

2.3 It's those 'rules' again!

The qualifications I gained at college enabled me to meet with the eligibility criteria necessary to enter University and the world of Higher Education. After successfully completing my first degree I joined the MA Management Systems at the University of Hull. As part of the degree program I carried out a piece of practical Action Research at one of Her Majesty's Prisons. The overall aim of the project being to improve communications between 'Statutory' and 'Voluntary' organizations involved in the detention of Young Offenders within an 'Adult' prison, and it was through this project that 'rules' again became the focus of my attention. For it was the reification of *the* 'rules' and the entrenched positions

they (re)created that, in my opinion, led to the problematic situation with which *we* were trying to grapple.

2.4 Theory, Practice and Experience

After completing my MA I co-authored a bid for external funding to carry out research into how student participation could help turn around ‘failing’ schools. In the end the funding did not materialize. However, I nevertheless made use of the initial contacts I had made in the schools who then very kindly allowed me to conduct my PhD fieldwork with them based along similar lines. This provided me with what I saw as the perfect opportunity to combine my own knowledge (theory), my preference for action (practice), and my own familiarity with Public Sector organizations (experience) in a meaningful way.

3 Systems Thinking

This chapter provides my take on a brief history of systems thinking from its early beginnings, in the tradition of the hard sciences, through the transitional approach of cybernetics, the appearance of soft systems thinking and, finally to the emergence of critical systems thinking. This history is portrayed in two ways, firstly, following the point of view that the process behind the development of systems thinking has been one of evolution and, secondly, my own very personal view illustrated by the use of the *comet* metaphor. Somewhere along the way, an alternative starting point for the emergence of systems thinking is suggested.

3.1 Introduction

The field of systems thinking in the UK has undergone significant change during the last two decades, particularly in terms of the methods used to intervene or bring about change in organizations. There has been a move from ‘hard’, quantitative methods (e.g. Hall, 1962) to ‘softer’ approaches that focus on generating and managing debate (Checkland, 1981), which in turn have been augmented by critical systems approaches that help to facilitate choices between the various methods available (see, for example, the books edited by Flood and Jackson, 1991a; Flood and Romm, 1996a).

Many authors have furnished us with detailed accounts of the ascent of systems thinking (e.g., Jackson, 1991; Keys, 1991). Therefore, it is not my intention to repeat such an endeavour here. However, a brief synopsis of the popular history of the systems movement, using the accustomed systems trilogy – the hard, soft,

and critical approaches - will be followed by the application of two metaphors as ways of conceptualising the progress of systems thinking.

3.2 From 'Hard' to 'Soft' to 'Critical' Systems Thinking

This is the way that many authors have recounted the development of systems thinking: Systems Thinking has, over time, moved on from the paradigm of Hard Systems Thinking developing into Soft Systems Thinking and, ultimately arrived with the emergence of Critical Systems Thinking (see for example, Jackson, 1991).

It can be argued that the catalyst for the growth, if not the very roots of systems thinking, can be traced back to the lessons derived from the exigencies of military operations carried out throughout the course of World War II. That which was learned was put to use in industry, government and commerce during the post-war years. Throughout the 1950's, 1960's and beyond, this 'hard' tradition has been seen as a 'coherent and powerful strand of systems thinking' (Checkland, 1981, 1983).

3.3 An Alternative View

However, there is an alternative view that modern systems thinking was born in the work of Bogdanov (Bogdanov, 1912, 1917, 1921, 1922). Bogdanov was a quite remarkable man. Educated as a medical doctor, he was to rise in prominence at the turn of the century as a philosopher, economist, biologist, author, revolutionary, and political figure (Gorelik, 1984). Bogdanov's *Tektology* was one of the original endeavours to uncover and probe general laws of nature

from an organizational point of view. *Tektology* or the ‘Universal Science of Organization’ (1912-1922) was largely ignored due to factors concerning politics and timing, until interest in Bogdanov’s work was rekindled in the 1960s. Bogdanov delimits and delineates the ‘whole world’ in terms of universally applicable laws of organization, and interactions between the processes of organization. Tektology can be characterized as:

...a dynamic science of complex wholes: creating, in fact, the first, and fundamental, twentieth century general-systemic concept.

(Dudley & Pustylnik, 1995)

It bears a striking resemblance to the *General Systems Theory* of Ludwig von Bertalanffy, whilst at the same instant differing everywhere in its spirit.

3.3.1 Tektology and General Systems Theory

The objective here is not to prove Tektology as the true birth place of modern systems thinking, but to provide a general comparison of the parallels observed, between Bogdanov’s Tektology and Bertalanffy’s General Systems Theory. I aim to achieve this through the application of the subsequent devices. Firstly, by a direct comparison from the texts of the two authors – providing the premise that at a meta-level at least, they are pursuing mutual ends. Secondly, by contracting the concepts of *Analogy* and *Isomorphy*, and their use by both Bogdanov and Bertalanffy respectively. Thirdly, by examining Tektology for evidence of the four main postulates of General Systems Theory.

Tektology can be characterised as a dynamic science of complex wholes, and it has a great deal in common with the contemporary generalising sciences including General Systems Theory (Gorelik, 1984). Bogdanov (1989) recorded:

...the aim of Tektology is the systematisation of organized experience.

3.3.2 A comparison from the texts

Prior to making a comparison of the texts, I would like to draw attention to the following – as noted by Dudley and Pustynnik (1995):

...there are problems in the translation of Bogdanov's work and the terminology used as a basis of comparative analysis.

However, despite the above, one diminutive example will be offered.

According to Davidson (1983), Bertalanffy, the father of General Systems Theory, believed that, all in all, the fate of the world is dependant upon humanity adopting a new set of values. A weltanschauung underpinned by general systems, he wrote:

We are seeking another basic outlook: the world as organization

Bogdanov, too, stressed the necessity of a similar worldview. This necessity arises from the fact that all activities, be they of man or nature, are essentially concerned with either organization or de-organization.

...there cannot be, and there should not be, any other view of life and the world, than the organizational one.

(Dudley, 1995)

3.3.3 Isomorphism and Analogy

Even a preliminary review of the literature exposes a multiplicity of views regarding the definition of the conception of Isomorphism and its compatriot Analogy. Some appear to treat the two as if they are simply interchangeable, Weinberg (1975) for example. A position apparently mirrored by the Open Systems Group, in the glossary of technical terms contained within 'Systems Behaviour' (1985): Isomorphism is defined as 'similarity or identity in form'.

Alternatively, Schoderbek *et al* (1990), derive a positive differentiation between the two terms and their respective complexion. In short, Isomorphism is defined as a one to one correlation, whilst, on the other hand, Analogy remains a much more indefinite concept. An Analogy:

...is the assertion that things that resemble each other in some respects will resemble each other in some further respect.

(Schoderbek *et al*, 1990)

3.3.4 Bertalanffy and Isomorphism

Arieti (1972), advocated that Bertalanffy ought to be conceived as the originator of 'the science of similarities'. However, Bertalanffy himself was a steadfast adversary of wanton analogising (Davidson, 1983). In 'General systems theory: a critical review' – an article that first emerged in 1962 – the following appeared:

...in many instances there is a formal correspondence or isomorphism...

(Bertalanffy, 1985)

The implication of which is that Bertalanffy conceived of and utilized the term Isomorphism in the same way as, later, did Schoderbek *et al* (1990).

3.3.5 Bogdanov and Analogy

It is argued that Bogdanov set up the use of the term Analogy akin to Bertalanffy's deployment of Isomorphism. In addition, it may be plausible to further argue that implicit in Bogdanov's reference to '*real analogies*' (emphasis added), are the same sentiments about the insecurities of inconsiderate analogizing:

...real analogies between different phenomena or correlations.

(Dudley, 1995)

I believe this premise is sustained through the agency of one more example from the Tektology:

...the way of analogies is often tortuous and difficult, the art of language is spontaneous; and what is close in language is often very distant from the point of view of Tektology, as well as the other way round.

(Dudley, 1995)

In summary, there exists – at least *prima facie* – some evidence that in the comparison of these two authors the terms Isomorphism and Analogy are indeed interchangeable.

3.3.6 General Systems Theory and Tektology

In 1954 Bertalanffy, along with other scholars including Boulding and Rapoport, set up the Society for General Systems Research. The Society has four main aims or postulates, these are:

- to investigate the isomorphy (structural similarity) of concepts, laws, and models in various fields, and to help in useful transfers from one field to another;
- to encourage the development of adequate theoretical models in the fields which lack them;
- to minimise the duplication of theoretical efforts in different fields; and
- to promote the unity of science [by] improving the communication among specialists.

(Davidson, 1983)

It is possible to discover in the penmanship of Bogdanov, evidence that will demonstrate the conceivable actuality of parallels between the overall endeavours of General Systems Theory and those of Tektology. The titles of the various sections contained in the introductory chapter alone, have the capacity to provide the initial starting point. More specifically, Bogdanov writes:

Specialization leads to the divergence of methods
... Consequently communications between them diminish,
... special languages ... consolidated the divergence of methods, but
also created the appearance of divergence where there was none.

...

It is necessary, that experience [scientific premeditation] be organized in an integral and harmonious way... Therefore what is needed is a universal organizational science.

(Dudley, 1995)

I am not purporting a one to one correlation between the above. However, one can observe in the words of Bogdanov, and his use of the conception of Analogy, the embryonic stages of the postulates of General Systems Theory.

3.4 Hard Systems Thinking

Personified by the notion that the real world is made up of systems and that its behaviour is systemic in complexion, the work of such systems thinkers who applied systems ideas as an approach to problem solving in real world problem situations has come to be known as Hard Systems Thinking - after Checkland (1978, 1981). Initially this category included only two approaches, Systems Engineering and Systems Analysis and treats organizations as if they were unitary goal seeking machines. According to Jackson (1991), it is clear that other approaches such as Decision Science and Management Cybernetics can be added to the list. As indeed can Operational Research 'insofar as it embraces systems ideas at all' (Jackson, 1991) - for an argument championing the systemic nature of Operational Research, see Keys (1991). Whatever the approach they all share the same basic assumption: '...the problem task they tackle is to select an efficient means of achieving a known and defined end.' (Checkland, 1978)

The job of the systems analyst is made somewhat easier then by the very nature of having predefined objectives at the beginning of the study. In essence this means that the Hard Systems approach presupposes that real world problems can be addressed on the basis of four assumptions (Checkland, 1978, 1981):

- there is a desired state of the system, S1, which is known
- there is a present state of the system, S0,
- there are alternative ways of getting from S0 to S1
- it is the role of the systems analyst to find the best means of getting from S0 to S1

Jackson (1991) quite rightly points out there has been a whole catalogue of criticisms levelled at Hard Systems Thinking from a expansive array of sources – including the following authors: Ackoff, 1977, 1979a, 1979b; Checkland, 1978, 1981, 1983; Churchman, 1979a; Hoos, 1972, 1976; Lilienfeld, 1978; Rosenhead, 1981 1989b. Objections can be aggregated and categorised into four general criticisms: a limited province of application; failure to take account of the human element; the demand for quantification and optimisation; the continued reinforcement of the status-quo (Jackson, 1991).

The same general criticisms are oft repeated in the penmanship of multiple authors such that the traceability of their origins is problematic. However, in sum they amount to one meta-criticism: the inability of Hard Systems Thinking to deal with the inherent complexity of ‘messy’ human activity systems. That is not to say that we should ignore Hard Systems Thinking’s undoubted contribution, in demonstrating, as it did, that systems ideas could be employed for intervention in real-world problematiques.

3.5 Cybernetics

The 1970s saw a rising uneasiness with the prevailing hard systems paradigm. A shift of emphasis toward problems with an added dimension emerging from the nature of the ‘complex and strategic issues’ and the ‘behavioural and social

aspects' they exhibited (Jackson, 1991) took place. Around the same time, less conventional systems approaches, which aspired to leave behind the till now dominant positivist and quantitative points of reference, began to materialize. One such approach was Organizational Cybernetics which had its roots in the work of Wiener (1948).

Although its lineage can be traced back as least as far as that of Hard Systems Thinking, it could be argued that Organizational Cybernetics was the pivotal 'new' systems approach seeming as it did to:

...have a particular role to play in helping managers deal with the extreme complexity of the systems they sought to control.

(Jackson, 1991)

Again, working on the military problems of World War II, one particular interdisciplinary group of scientists began to focus on the problems of communication and control, the general laws that governed the processes of a system - no matter what the nature of the system. Hence, Cybernetics came to be defined as the 'science of control and communication in the animal and machine'.

However, not long after Wiener (1948) had established this definition, he was already applying the comprehensions of Cybernetics to human activity systems (Weiner, 1950). Interest in Cybernetics continued to grow throughout the 1950s in particular via the work of Ashby (1956) and his formularisation of the 'law of

requisite variety', which states that only variety can destroy variety, i.e., the variety of any controller must be at least that of the systems to be controlled.

The first serious application of Cybernetics to management was from Beer (1959). Beer was probably the most prolific writer on the matter across the 1960s and early 1970s, and was responsible for developing the Viable Systems Model for diagnosis of extant systems or the design of new systems underpinned by robust cybernetic principles. Later, it was Beer who redefined cybernetics as the 'science of effective organization' (Beer, 1979).

3.6 Management Cybernetics and Organizational Cybernetics

Cybernetics can be conceptualised using two distinct models, these are considered as, Management Cybernetics and Organizational Cybernetics. There is little if anything to distinguish Management Cybernetics from traditional Hard Systems Thinking. In Management Cybernetics the goal or purpose of the system is predetermined, more often than not, by an external source, and management control is affected via a number of tools. It does not take into account the complexity of the subjectivity of organizational systems, and an inability to break with the status quo prevails.

Organizational Cybernetics on the other hand is a different prospect altogether, based as it is on a fundamentally different philosophical grounding. Breaking with the accepted wisdom of mechanistic and organismic thinking, typical of Management Cybernetics, this brand of Cybernetics is able to make full use of the

concept of variety (Jackson, 1991). Organizational Cybernetics is not obviously subject to the same criticisms – ‘an inability to deal with the subjectivity and with the extreme complexity of organizational systems, and for an inherent conservatism’ (see Jackson, 1986, 1991) and ‘represents a genuinely new direction with respect to traditional management science’. Thus, paving the way for the emergence of the Soft Systems approach as a direct response to the continuing dissatisfaction with the development and limitations of hard systems thinking.

3.7 Soft Systems Thinking

This new approach was advanced, in particular, as a response to the perceived inability of the hard approach to deal with the problematemes that are human activity systems. The word ‘advanced’ was used above with deliberate intent, as Soft Systems Thinking is generally thought of as an advance over and above the way that Hard Systems Thinking deals (or not) with people and their multiple perceptions, interests and value systems. For Soft Systems Thinkers social reality cannot be accounted for by the positivistic, objective schema that underpin the approaches of the traditional scientist and Hard Systems Thinker. For, unlike these schools of thought, Soft Systems Thinkers perceive that in actuality systems exist as a result of intersubjectivity. Soft Systems Thinking is able to extend our ability to manage real world problems by its willingness to accept that there are multiple versions of reality, and through its endeavours to open up ways for practitioners to deal with this very admission.

As with Hard Systems Thinking, Jackson (1982, 1991) suggests that there are a small number of (in this case, three) methodologies that constitute the mainstay of Soft Systems Thinking. These are; Social Systems Design (Churchman, 1971, 1979b ???), Interactive Planning (Ackoff, 1974, 1981), and Soft Systems Methodology (Checkland, 1981 and Checkland & Scholes, 1990). However demonstrative of the Soft Systems approach these authors and their respective methodologies are, they are certainly not without their differences. Nevertheless, Jackson (1991) maintains that it is their similarities that are significant, being, as they are, preoccupied with messy, ill-structured problems, and their intent is to capture and harness multiple stakeholder perceptions of systems, rather than engaging systems 'out there' in the 'real' world. In addition, the role of expert is brought into question, creating a space for learning to occur and furthermore, the opportunity to arrive at an accommodation acceptable to the participants engaged with the problem situation.

The above constitutes the abandonment of the positivism that underpins Hard Systems Thinking. As Jackson (1991) describes:

[a manifest] ...epistemological break (in the sense of a shift between paradigms) has occurred, and a new direction in management science has been opened up based upon other philosophical/sociological foundations.

Just like Hard Systems Thinking before it Soft Systems Thinking too came under attack for having its own limited sphere of application. A major criticism being that Soft Systems Thinking has a propensity to operate in the echelons of ideas, failing to take account of the structural origins from whence they came. Soft

Systems Thinkers also stand accused of assuming that the social world is basically consensual in its complexion, closing their eyes to the actuality that power asymmetries, structural conflict and contradiction are rife (see, Rosenhead, 1976; Bryer, 1979; Thomas & Lockett, 1979; Jackson 1982, 1983; Mingers, 1984; Flood and Jackson 1991).

This led to the belief that the interpretive theory underpinning Soft Systems Thinking is sadly lacking as a means of adequately comprehending and taking action in social situations, surrounded as they are by inequalities of power and resources (Jackson, 1982 and Flood & Jackson 1991).

In turn this in time led to the further recognition that all forms of systems thinking and their attendant methodologies have their limitations and the birth of Critical Systems Thinking.

3.8 The 'Evolution' Metaphor

The story of systems thinking can be told through the use of the evolution metaphor.

The common explanation of the rise of the systems approach is that of an evolutionary process. As such one might expect to see only the survival of the 'fittest' (i.e., in this case definitely the one that is best fitted to its environment).

This would in actuality be consistent with the Kuhnian notion of paradigms – as the new paradigm replaces the old the old paradigm dies out.

A cursory glance at the systems journals and other like publications will show that all three approaches co-exist at this time. In a way this supports the view that all systems methodologies have a limited domain of application. Also, it could be argued that what we have experienced in the development of the systems approach is that of step change and not the gradual processes of Darwinian natural selection.

3.9 What is this thing called Critical Systems Thinking (CST)?

What is this thing called Critical Systems Thinking? This pertinent question served as the title of the opening chapter of *Critical Systems Thinking: Current Research and Practice* (Flood and Romm, 1996) penned by Midgley (1996).

According to Flood (1999):

...the enterprise of CST is not a homogeneous one. Indeed, it is not an enterprise at all.

So, where does that leave us in our quest to answer the question Midgley originally posed? In some ways then, the word quest may be more appropriate than I first thought. Any venture that sets out to answer such question may indeed be setting out on the proverbial quest for the Holy Grail!

Critical Systems Thinking is itself a relatively new intellectual endeavour. It has been said that the source of Critical Systems Thinking can be identified as Checkland's critique of the tradition of Hard Systems Thinking in the 1980's (Jackson 1991).

As co-researchers and facilitators, practitioners are guided by a number of principles drawn from the approach that is Critical Systems Thinking. These principles have been developed through numerous practical projects and through reflection on the processes being used and the outcomes achieved. Discussion about what should be the central pillars of Critical Systems Thinking has been more or less continuous throughout the last decade, and Midgley (1996) provides a detailed analysis and critique of the debate. So, it is important to note that the principles used by one are not necessarily the same principles that other practitioners of Critical Systems Thinking will have employed in their work since there is considerable variety within the critical systems research community, as Midgley's analysis reveals. I will now outline what I consider to be the basic set of principles.

The first principle of Critical Systems Thinking, on which the others are founded, is to study organizational forms as if they are systemic; to take into account the whole, to consider 'the system' under study as one comprised of interacting parts, that are themselves elements of an even greater whole. In order to ensure that any project is comprehensive and yet is bounded in a way that is meaningful, critical systems thinkers often employ a process known as 'boundary critique' (Ulrich, 1996; Midgley et al., 1998). This involves the regular questioning of who is involved in the project and what demarcation lines are being drawn - in other words, thinking about what is viewed as outside the system, or marginal to it, as well as what is seen as relevant.

According to Flood (1995), if meaningful participation is not attained then only a restricted comprehension of an organization can be achieved. The result is a perspective that fails to reflect the whole system. Thus, it is a violation of the (first) systemic principle. Flood goes on to argue that it is only by bringing together the perceptions of all the people involved and affected that it becomes possible to advance sufficient understanding and maintain a whole systems perspective. In striving for meaningful participation, researchers (and change agents) must take care about who is representing whom and how they are doing the representing. Issues can arise from individuals who self-select into a project team with the intention of simply presenting their own views (however valid these may be) whilst being required to represent the views of a further group of people who are otherwise not represented. Power relations that may prevent open disclosure of viewpoints are also a concern.

Proponents of Critical Systems Thinking argue that researchers and other participants should reflect about the types of methods they are using in an intervention (see, for example, Flood and Jackson, 1991a; 1991b; Flood and Romm, 1996a). This also requires that participants reflect on possibly divergent organizational interests and the relationships between them – how they might impact upon people and their opportunity to participate in a meaningful way. According to Flood (1995), the use of a restricted number of methods, and a lack of knowledge concerning the limitations of those methods, are common management failings. Flood and Jackson (1991b) argue that, through critical reflection, the strengths and weaknesses of each method can be brought to the fore. Other critical systems thinkers also discuss the process of reflection through

which methodology choice can be made (for a range of approaches to dealing with variety in methodology choice, see, for example, Gregory, 1992; 1996; Midgley, 1997a; 1997b; Flood and Romm, 1996b; Mingers and Gill, 1997; Jackson, 1999). This principle is of use to those within business organizations who often must rely on the 'expertise' of change agents (internal and external consultants) in using specific approaches to problem solving. With guidance, business managers can begin to challenge the utility of proposed intervention methods in situations where their own expertise suggests these might not be appropriate.

A final principle of Critical Systems Thinking concerns the desire to bring about improvement in problem situations. Midgley (1996) shows how the original commitment of early critical systems writers to 'human emancipation' (see, for example, Flood and Jackson, 1991b; Jackson, 1991) should be translated into a search for 'improvement' so as to encompass ecological well being as well as that of humanity. In talking about 'improvement', Midgley hopes to show that critical systems interventions have a goal-directedness that some other interpretive systems approaches do not (i.e. the latter seek to understand situations without trying to transform them). Midgley argues that researchers should adopt an ethical responsibility towards intervening to improve situations where their research reveals inequities or illegitimate uses of power, for example.

In reflecting on the issue of what should be viewed as improvement, it is important to think about where the boundaries are being drawn:

...it may be the case that, if the boundaries are re-drawn to include actors previously excluded from the system, what some view as an improvement might be viewed very differently.

(Churchman, 1970).

3.9.1 Human Emancipation

In his paper containing what he describes as ‘inseparable’ pluralism and critical systems thinking, Jackson (1999) maintains the anthropocentric leanings of his preceding works. However, it is counter logical when writing from within a discipline that maintains a vital relationship between a system and its environment that this should remain so, particularly with current concerns over the sustainability of man’s existence on mother earth. Engaging in dialogue for human emancipation per se is, in my opinion, misleading. Better, to concentrate efforts to ‘free’ participants from current traps – today’s solution will always be tomorrow’s problem!

3.10 The System of Systems Methodologies

During the early eighties, Mike Jackson and Paul Keys embarked upon a particular program of research at the University of Hull that ultimately lead to the first meta-theoretical framework – the system of systems methodologies (Mingers, 1997). A typology categorising the diverse assumptions made by methodologies.

Based on the premise that different systems approaches had different strengths and weaknesses, that rendered them more or less appropriate to particular problematic situations and indeed purposes. They set about explaining theoretically the differences between systems grounded methodologies and, practically, at determining the value of particular approaches in a variety of problem contexts (Jackson, 2000).

3.10.1 Establishing the Framework

It was found to be useful to group problem contexts according to two dimensions - systems and participants (Jackson, 1987, 1988, 1990). The systems dimension refers to the relative complexity of the system(s) that constitute the problem situation: the continuum ranging from relatively simple to highly complex. The participants dimension refers to:

...the relationship (of agreement or disagreement) between the individuals or parties who stand to gain (or lose) from a systems intervention.

(Flood and Jackson, 1991)

Alternative approaches could now be:

...presented as being appropriate to the different types of situation in which management scientists are required to act. Each approach will be useful in certain areas and should only be used in appropriate circumstances.

(Jackson, 1991)

While some would argue that they dealt with this issue using a straightforward approach:

...they simply developed a grid with four boxes, representing four different types of perceived problem context, and then aligned different systems methodologies with each of them.

(Midgley, 1997)

Jackson (2000), stresses that the critical function of the System of Systems Methodologies, the formation of a taxonomy of systems grounded approaches, was to provide for their 'complementary and informed use', in a manner 'suited to the language, concerns, and internal development of systems thinking' (Jackson, 2000). Jackson (1989), provides a description of the research program with

practical examples of interventions and its impacts. ‘The theoretical tool at its heart was the ‘system of systems methodologies’’ (Jackson and Keys, 1984).

To classify participants, terminology from the industrial relations literature was adopted. The possibilities for relationships between participants are then seen as unitary, pluralist, and coercive – and are defined as follows:

Unitary

- they share common interests
- their values and beliefs are highly compatible
- they largely agree upon ends and means
- they all participate in decision making
- they act in accordance with agreed objectives

Pluralist

- they have a basic compatibility of interest
- their values and beliefs diverge to some extent
- they do not necessarily agree upon ends and means, but compromise is possible
- they all participate in decision making
- they act in accordance with agreed objectives

Coercive

- they do not share common interests
- their values and beliefs are likely to conflict
- They do not agree upon ends and means and ‘genuine’ compromise is not possible
- some coerce others to accept decisions
- no agreement over objectives is possible given present systemic arrangements

Combining the dimensions of systems and participants produces a six celled matrix (see figure 1), with problem contexts falling into six ‘ideal’ type categories. These are: simple-unitary, complex-unitary, simple-pluralist, complex-pluralist, simple-coercive, and complex-coercive. With all of the

problem contexts differing from each other in a meaningful way, it followed that the implication was that of a need for an equally varied range of problem solving methodologies. Essential differences displayed by the problem contexts should, therefore, be reflected in different types of methodology.

	Unitary	Pluralist	Coercive
Simple	Simple-Unitary	Simple-Pluralist	Simple-Coercive
Complex	Complex-Unitary	Complex-Pluralist	Complex-Coercive

Figure 1 - Grid of Ideal problem contexts

Now, with the grid of problem contexts in place, the next undertaking was to continue building the System of Systems Methodologies, correlating existing systems grounded problem solving methodologies to the established framework. Based upon the assumptions they make about problem contexts, a preliminary classification of systems approaches was drawn up.

3.10.2 Classification of Systems Approaches

Hard systems thinking, it was said, makes assumptions about the ease with which problems can be identified and objectives established, leading to the application of mathematical modelling techniques. It is also pretty much taken for granted that little or no disagreement exists about these. Approaches steeped in the hard systems thinking tradition - operational research, systems analysis, systems engineering, system dynamics – can, therefore, be lodged in the simple-unitary element of the framework. The complex-unitary cell of the grid was said to be

inhabited by approaches favouring the organismic rather than mechanical analogy, choosing instead to see systems as complex – comprising of many elements with close interrelationships, probabilistic behaviour, including purposeful parts, and open to the environment making them difficult to predict. However, they are still thought to be somewhat inadequate in their failure to provide mechanisms to resolve differences in opinions and values, and are dependant still upon unitary agreement. Approaches related are: viable systems diagnosis, general systems theory, socio-technical systems thinking and contingency theory. The methodologies identified with the simple-pluralist context – social systems design and strategic assumption surfacing and testing - assume that difficulties surrounding issues are born out of disagreements among participants concerning the goals to be served by the system. It is further assumed that though the dissolution of conflict over issues has been achieved, any ‘problems’ that remain can be dealt with relatively simply using simple-unitary methods. As for the complex-pluralist area of the grid, the methodologies said to inhabit this context – interactive planning and soft systems methodology – are specifically designed to tackle a lack of agreement about goals and objectives where the potential for some form of genuine compromise exists. They also make provisions for dealing with the perceived complexity of problematic situations, including guidelines for the design of new systems.

At the time of its inception (1984):

...there seemed to be no systems methodologies based on coercive assumptions. In fact, the major text on the first significant ‘emancipatory’ systems approach, Ulrich’s ‘critical systems heuristics’, had just been published.

(Jackson, 2000)

So, it was not until later that Ulrich's approach was added to the grid. It was argued that critical heuristics did not set out to facilitate the management of complexity down the length of the systems dimension (Jackson, 1987, 1990). Thus, critical systems heuristics was placed in the simple-coercive cell. For a summary of these arrangements see Figure 2 (from Jackson, 1991) and Figure 3 (from Flood & Jackson, 1991).

	Unitary	Pluralist	Coercive
Simple	<p>Hard Systems Thinking</p>	<p>Soft Systems Thinking</p>	<p>Emancipatory Systems Thinking</p>
Complex	<p>Organizations as Systems</p> <p>Organizational Cybernetics</p>		

Figure 2 - Systems Thinking and the problem context grid

As an expression of the interrelationships linking different systems approaches and their relationship to ideal-type problem contexts, this body of work, therefore, provided a 'system of systems methodologies'.

In general terms it did seem that available systems approaches made up a 'system' in terms of the assumptions they made about problem contexts.

(Jackson, 2000)

	Unitary	Pluralist	Coercive
Simple	<p>Simple-Unitary</p> <ul style="list-style-type: none"> • Operational Research • Systems Analysis • Systems Engineering • Systems Dynamics 	<p>Simple-Pluralist</p> <ul style="list-style-type: none"> • Social Systems Design • Strategic Assumption Surfacing and Testing 	<p>Simple-Coercive</p> <ul style="list-style-type: none"> • Critical Systems Heuristics
Complex	<p>Complex-Unitary</p> <ul style="list-style-type: none"> • Viable System Diagnosis • General Systems Theory • Socio-Technical Systems Design • Contingency Theory 	<p>Complex-Pluralist</p> <ul style="list-style-type: none"> • Interactive Planning • Soft Systems Methodology 	<p>Complex-Coercive</p> <p style="text-align: center;">?</p>

Figure 3 - Systems of Systems Methodologies

3.10.3 Benefits of the System of Systems Methodologies

Attached to the formation of the System of Systems Methodologies were claims to a number of benefits provided. In the first instance, that surfacing assumptions being made about ‘systems’ and ‘participants’, in using any particular methodology, would permit potential users to critically assess their attendant strengths and weaknesses, enabling them to make informed choices, whilst taking into account the task at hand and the likely consequences of employing each approach. Second, that the System of Systems Methodologies helped to make sense of what can go wrong through the inappropriate deployment of a systems approach to a particular problem context. Finally, and according to Jackson (2000) most importantly in the long term, ‘...the System of Systems Methodologies opened up a new perspective on the development of systems thinking and management science.’ It did this by presenting systems thinking not as a set of competing disciplines, but a number of alternative approaches each appropriate to a different types of problematic situation. Embracing such a

perspective, with each approach being used only in appropriate circumstances, endows practitioners with the opportunity for increasing competence, effectiveness and efficacy in diverse problem situations. Jackson suggests that those interested in the historical contribution of the System of Systems Methodologies to the development of critical systems thinking should consult the references listed in the 'researchers guide' (Jackson, 1993). 'The System of Systems Methodologies is not just an historical relic however.' (Jackson, 2000).

3.10.4 Critiques of System of Systems Methodologies

There have been a number of criticisms levelled at the System of Systems Methodologies and its underpinning philosophy. For example, Midgley (2000) suggests that the interested reader should see, in particular: Gregory (1990,1992), Midgley (1990a,b, 1992a,b, 1995, 1996), Mansell (1991), Mingers (1992a,b,c, 1993), Tsoukas (1992), Jones (1993), Dutt (1994), and Sutton (1995). As Midgley (2000) suggests, it is important to follow through the subsequent replies in order to achieve a balanced understanding of the issues raised.

Amongst these criticisms it was thought that particular improvement was necessary as questions had been raised regarding the issue of the researcher's responsibility. This had not yet been addressed in the descriptions of the use of the System of Systems Methodologies thus far. In addition, Midgley (1990b), raised further criticisms regarding insufficient consideration to the dynamism and complexity of most research situations. There now follows a review of just a few of these criticism.

First, in citing Gregory (1992) Midgley argues that the system of systems methodologies encourages people toward a single interpretation of each methodology. Whereas, it has been shown that it is in actuality possible to employ a given methodology for a variety of purposes, some of which extend outside the boundaries of their intended theatre of operation (see Flood and Romm, 1995). The result of placing methodologies in boxes, is that the potential for alternative and nonetheless justifiable uses is severely reduced. As revealed by the fact that the number of changes in the structure of the system of systems methodologies has been restricted to one (Jackson, 1987). This and, despite several calls for critical reviews (Jackson, 1987), only a mere handful of changes in the alignment of methodologies within the structure have been realized (for example , Flood and Jackson, 1991b). This effectively '*freezes*' interpretations of methodologies perpetuating its unnaturally restrictive complexion. As well as decreasing its potential to take account of developments derived from other perspectives (Gregory, 1992) - System Dynamics being a case in point.

Midgley explains how Systems Dynamics has always been located within the system of systems methodologies in the 'simple-unitary' box. This, despite more recent research on the methodology which indicates that it is more useful to concentrate on the modelling process itself, as a means of developing learning and social co-ordination (see for example, de Gues, 1994), rather than the traditional view with its attendant claim that the model represents *reality*. Meaning that those who practice Systems Dynamics have changed their appreciation of the concept of 'system' to one that is much more akin to soft systems thinking.

Presumably then, this new use in action renders it, by the same token, just as applicable to both unitary and pluralist contexts (Midgley, 1997b).

Midgley's final point takes as problematical the way in which the issue of making critical boundary judgments is confined to simple-coercive contexts – in the form of Critical Systems Heuristics (Ulrich, 1983). In the same way that the 'boxes' of system of systems methodologies unnaturally restrict the interpretation of methodologies (Gregory, 1992), it too confines in practice the activity of critical reflection and the discussion of boundary judgments to only an 'occasional' basis (Midgley, 1997b). Midgley clearly states, and I would concur, that Critical Systems Heuristics is not the panacea for generating critical awareness (see Jackson (1985, 1991), Willmott (1989), Ivanov (1991), Flood and Jackson (1991b,c), Mingers (1992a), Romm (1994, 1995a,b), Brown (1996) and Midgley (1997), for criticisms aimed against it). Still, the question remains:

'...how is the commitment to critical awareness enacted in situations where coercion is *not* identified?

Midgley (1997b, original emphasis)

3.10.5 The Creative Design of Methods

In response to a intervention of some particular complexity Midgley, (1988, 1989, 1990a; Midgley and Floyd, 1988, 1990) developed an approach that came to be known as 'The Creative Design of Methods'. Midgley argued that:

...'most' research situations are perceived as sufficiently complex to warrant the use of a variety of methods.

(Midgley, 1997b)

And so, any notion of *simple* (my emphasis) methodology choice becomes problematised. Therefore, it becomes more useful to think in terms of the design of methods than the simple choice between 'off the shelf' methodologies (Midgley, 1997b). So, in its infancy at least, Midgley's approach the Creative Design of Methods (Midgley, 1990b, 1997b). was envisaged as a development of the System of Systems Methodologies – see criticisms above.

The concept of 'creative methodology design' came out of the initial research (Midgley, 1990b) and, in order to negate any misunderstanding between method and methodology the name *creative design of methods* was adopted (Midgley, 1997a). This entails understanding the problem situation as a sequence of:

...systemically interrelated research questions, each of which might need to be addressed using a different method, or part of a method.

(Midgley, 1997b)

It is not necessary to determine these questions as a complete set in advance, rather, they should be allowed to develop as events and opportunities, understanding and insights, regarding the problematic situation develop.

Central to this process is the notion that the method that is finally designed is not merely an aggregate, formed by the 'stitching' together of other people's methods.

It is indeed significantly different than the sum of its parts:

...a *synthesis* is generated that allows each individual research question to be addressed as part of a whole *system* of questions.

(Midgley, 1997b: *original emphasis*)

In other words, it may be useful to think in terms of ‘multi-layered’ intervention (Weil, 1998), where methods are required to demonstrate responsiveness to different ‘levels’ of analysis (Midgley, 2000).

3.11 The ‘Comet’ Metaphor

This thing that is Systems Thinking can be conceived of as a comet – see Figure 4 below.



Figure - 4 The Comet

The nucleus of the comet represents the general systemic principles, the common heritage of the three approaches.

The coma of the comet are the proponents of Critical Systems Thinking, they are to be found at the leading edge continually moving towards unknown space. There have been few images produced that accurately record the true nature of a comet, for in fact a comet generally has two tails, not just one, and only some pictures accurately record this phenomena. One tail is due to the comet's dust particles, the other is due to ionised gas from the comet's coma. The two tails of the comet represent those who would embrace the principles of Soft Systems Thinking and Hard Systems Thinking, the remains of which recede toward infinity.

Hard Systems Thinking can be conceived of as the ion tail, because this is created by an interaction with the 'real' Interplanetary Magnetic Field (IMF). The magnetic field of the sun, which is present everywhere in space, sweeps past the comet nucleus. Ions – electrically charged particles which first come from the comet nucleus as (neutral) gaseous particles – are swept into the comet tail. Ironically perhaps, from the point of view of the 'newer' systems thinking paradigms (also because of its special interaction with the IMF), it always points exactly away from the sun (i.e., away from 'the light'), see Figure 5.

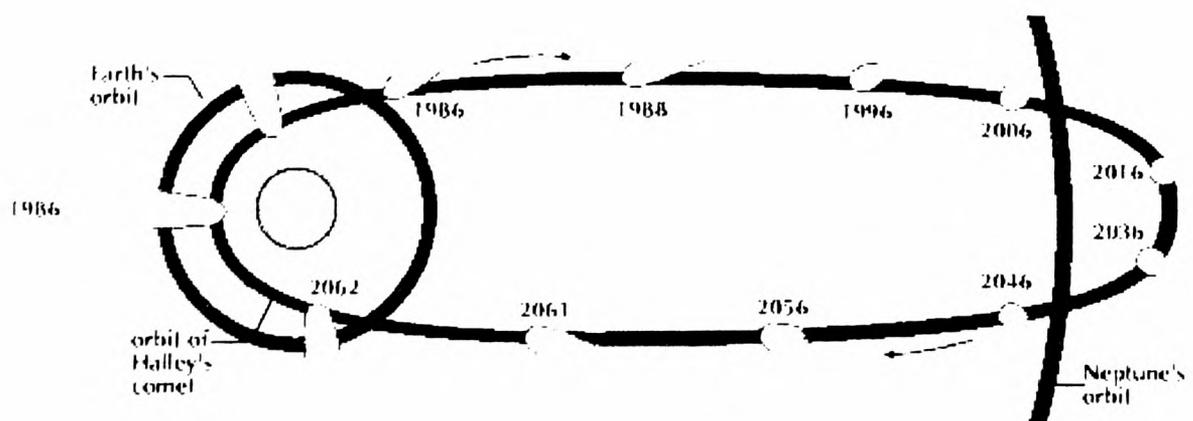


Figure 5 - Illustration of the orbit of Halley's comet

Dust particles form a very different sort of tail and this is the tail that represents Soft Systems Thinking. The only force which affects these small particles in space is corpuscular radiation from the sun itself. This radiation pushes the dust particles in the direction from which they came, in the same way that the wind can blow rain drops at an angle to the vertical. These tiny cometary dust particles can be thought of as billowing up from the comet's surface. Thus, this comet tail generally points back along the comet trajectory. This in a way describes Soft Systems Thinking's said propensity for reinforcing/returning to the status quo.

For me, this metaphor describes better how all three approaches exist at the same time, more than that of an evolutionary process - Darwinian or otherwise.

4 Research

4.1 Introduction

This chapter on research begins with an overview of the initial process of reflection undertaken in order to make sense of the then future ahead. It is focused around objects of reflection, the questions posed and the issues concerned, as I perceived them to be, and is summarised in both table and diagrammatic form. This description of the initial reflection is then followed by a more formal discussion of the outcomes and attendant issues, including the grounds upon which the overall design of the research may be criticised – especially by those outside the systems host paradigm.

I understand that employing this particular approach of cycling from informal reflection to more formal discussion may seem alien to some, and at times a little confusing. However, it is a far more accurate representation of the initial reflective processes than say a constructed linear presentation of a post hoc rationalisation.

4.2 Initial reflection

I shall now provide a brief insight into the initial process of reflection by focusing on each of the questions posed, a summary of which can be found in Table 1, whilst the process itself has been mapped out and can be viewed at Figure 6, beginning with the first question posed: What kind of research do I want to do?

No.	Object	Questions	Issues
1.	Starting Point Initial reflection	What kind of research would I be best suited to? What kind of research do I want to do?	Background, Personality, Experience, Interests, Theory, Practice, Action
2.	Theory	What level could my work possibly contribute to?	Philosophy, Methodology, Method, Tool, Technique
3.	Practical Real-world problem	What kind of system do I want to engage with?	Ethics, Morality, Contribution to society, Profit making system, Non-profit making system, Regulatory system
4.	Decision Analysis - Action	Do I just want to 'tell it like it is', and perhaps make recommendations? Do I want to do something about it at the point of research?	Role of social science, Relationship between theory and action, Analysis, Action
5.	Decision Intervention - Interaction	What kind of role do I want to play? How should the researched be involved?	Role of the social scientist, Researcher - Researched relationship, Expertise, Facilitation, Co-research
6.	Decision Optimisation - Learning	What kind of contribution do I want to make to the target system? What kind of questions should form the focus for the work?	How? – Efficiency, effectiveness, What? – Learning Why? – Interests, participation
7.	Decision Overall Strategy	What kind of overall strategy should I adopt? What kind of strategy would I feel most comfortable with?	Learning, Participation, Complementarism
8.	Participatory Action Research	What is the character of PAR? On what kinds of grounds might PAR be criticised?	Reliability, Validity, Representativeness, 'false consciousness'
9.	A systems methodology	What kind of systems methodology would fit with PAR strategy?	Learning, Participation, Debate, Subjectivity, Adaptability, Ad hoc, Enhanced, Established, Meta-methodology, Multi-methodology, Mixing methods
10.	Soft Systems Methodology	What are the strengths of SSM? What are the weaknesses of SSM? Can SSM be adapted? What kind of relationship could SSM have with another methodology?	'action research' emphasis, 'proven' track record, structured planning approach, 'for the 'Status Quo' 'restricted' interpretive base, 'idealist' base, 'false consciousness' 'cultural feasibility', 'constitutive' rules, 'strategic' rules paradigm (in)commensurability
11.	Critical Systems Heuristics	What are the strengths of CSH? What are the weaknesses of CSH? Can CSH and SSM be effectively combined? Do they share any common history, paradigm, or traits?	'penetrates' designs an decisions an 'immature' approach 'utopian' complexion lack of guidelines for action difficult to integrate in intervention
12.	12 Boundary questions 'ought' mode	Are the 12 boundary questions a suitable replacement for CATWOE? Can they be successfully re-worded to suit the research environment?	'constitutive' rules 'strategic' rules
13.	Research Methodology	What is the resulting Methodology?	Ad hoc methodology Enhanced methodology Established methodology Meta-methodology Multi-methodology Mixing methods
14.	Reflection Methodological	Is the methodology a suitable 'transitional proposition'? Does it have 'unique validity'?	Suitability, Coherence
15.	Research Situation	Do regulatory, rule bound systems exist as an ideal type? What characteristics do they exhibit? How can we bring about change in rule bound systems? Can mixing methods bring about such change? How can the relationships between participants be defined? What combination of methods is appropriate for this context?	
16.	Reflection Contextual	Have any lessons been learned? Has the lot of the researched been improved?	Contextual, Practical, Theoretical, Philosophical, Methodological, Methods, Tools, Techniques

Table 1: Notes on the research process diagram

Key:
 1.,2.,...
 () Notes - see Table
 >>> Chosen Option
 >>> Chosen Path
 >>> Alternative Option
 >>> Alternative Path
 >>> Possible Influences

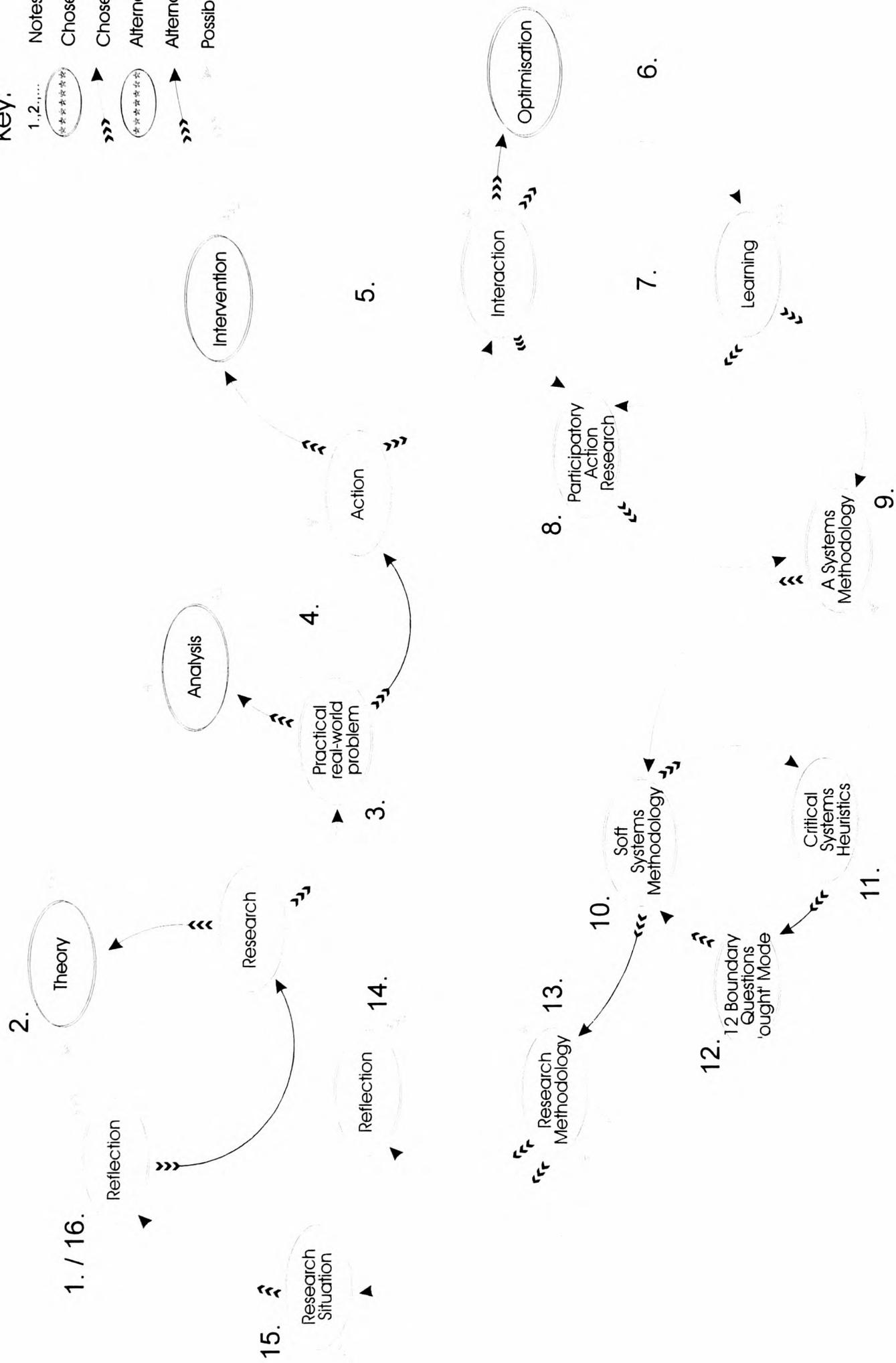


Figure 6 Diagram of the research process

4.2.1 What kind of research do I want to do?

The starting point for my initial reflections was to ask myself the following question. What kind of research would I be best suited to? In answer, I considered several issues; my own background, personality, previous experiences and my interests in terms of theory, practice and action. My background is such that I have become accustomed to working on my own initiative, whilst, at the same time operating as part of a closely knit team. So, the solitary experience of a purely library based research environment did not appeal to me. However, the potential to build upon my experiences of the past, albeit with a very different role for myself, most certainly did.

4.2.2 What level could my work contribute to?

Here I began to reflect upon the kinds of possible contribution I could make to the body of systems knowledge. So, would my research bring with it new elements of theory or practice, philosophy, methodology, method, tool, or technique. Of course it is more likely that such contributions would *emerge* from my endeavours. However, if a contribution to theory appeared unlikely then the case for proceeding any further would be questionable without resolution of the issue. Even at this early stage I believed that there was a case to be answered for contributions relevant to both theory and practice. This thought combined with a preference for a non-library based environment, meant only one thing: a practical real-world problem situation. So it follows that the next question to be considered was: What kind of system do I want to engage with?

4.2.3 What kind of system do I want to engage with?

This question first flagged up issues that were essentially about what has been called the root of all evil, money, and the kind of contribution I felt most comfortable with. It was immediately clear to me that I did not want to simply help someone make more money. This suggested that the kind of system I was looking for was a non-profit making organization.

A non-profit making organization? – an interesting concept which to me is now an oxymoron. Surely, profit is the very heart of the *raison d'être* for any organization, though it may not always be profit in the monetary sense. We band together with others because of the 'profit' that such alliances create, for example, enhancing skills or capacities or simply safety in numbers. The reason being that we can achieve more collectively. So, it follows that if we could act out our requirements entirely on our own, there would remain no need for organization (without these additional benefits). The eureka experience that spawned this realisation, and what for me was a revelation, oddly enough was the lyric of a song - as for how I made the connexion, I'll leave to others!:

They say it's better to have loved and lost

Than never to have loved at all

But when you sit down and count the cost of

All the losses

There's no profit at all.

(Del Amitri, 1989)

Notwithstanding the above, for convenience and by way of maintaining the usual distinction, I will continue to use the term non-profit making for those organizations who do not turn a profit in the monetary sense.

4.2.4 What do I want to do?

This point of reflection was undoubtedly about the role of social science and the relationship between theory and action. Do I just want to ‘tell it like it is’ perhaps with the addition of a few recommendations? Or do I want to do something about it at the point of research? To answer in brief, I would have to refer to the work of Lewin (1946, 1947, 1948, 1952) who argued that the only way to truly understand something is to try and change it.

4.2.5 What kind of role do I want to play?

This was the logical question to follow that of the role of social science, as it is all about the role of the social scientist and the relationship between the ‘researcher’ and the ‘researched’. It is about what I would refer to as intervention or interaction. I may by now be well on the road to becoming a systems ‘expert’, but I would make no claim to be an expert in anyone else’s system. Therefore, it had to be interaction over intervention. I could now see the future possibility of a facilitation role for myself and a co-researcher relationship with those involved from the host system.

4.2.6 What kind of contribution do I want to make to the host system?

Having identified a non-profit making organization as the kind of system with which I would most like to interact, the question of the kind of contribution I would like to make boiled down to two options, optimization or learning. What kind of research questions should form the focus of the work? The how's? – questions aimed at improving efficiency and effectiveness. The What's? – questions aimed at learning or, the Why's? – questions of interests and participation. Ultimately, as one might expect intuitively, the resultant was inevitably an assortment of all the above. Now, this was beginning to answer the next question: What kind of overall strategy should be adopted?

4.2.7 What kind of overall strategy should be adopted?

What kind of strategy would I feel most comfortable with? With interaction as the basis of engagement, coupled with the desire to work under the auspices of a co-researcher relationship, rather than that of the researcher and researched, Participatory Action Research seemed a likely candidate. In order to lay out my own particular view of what it is that might form a Participatory Action Research approach, why it seemed appropriate to me, and what might constitute the character of Participatory Action Research, I shall use the vehicle of a comparison with another well documented and contrasting social science approach to research into human activity – Ethnographic Research.

4.3 Ethnographic Research and Participatory Action Research: A comparison

This begins with an outline of the respective basic characters of Ethnographic Research and Participatory Action Research. Following this, further comparisons are drawn. First, some of the similarities and differences are highlighted, before moving on to a further analysis based on the three criteria of ‘reliability’, ‘validity’, and ‘representativeness’. And, finally, I will argue that it is the co-researcher relationship of Participatory Action Research that enables the approach to better withstand criticism on the above grounds.

4.3.1 Introduction

There exist many accounts and interpretations of both Ethnographic Research (for example, McNeill, 1985; Hammersley, 1990; Francis, 1992; Fielding, 1993) and Participatory Action Research. I should like to make it clear from the outset that my interpretations, and the terminology herein, are but one account and do not necessarily coincide with those of the key advocates.

It may be useful to provide my view, in a necessarily concise, and therefore somewhat cursory manner, of the basic character of the two forms of social research in question. Firstly, what is the character of Ethnographic Research?

4.3.2 The Character of Ethnographic Research (ER)

ER falls under the auspices of the mainstream view of 'normal' science. There are of course those who would dismiss Ethnographic Research as anything but scientific - for a concise review of the scientific/unscientific debate see Hammersley (1990). That is to say the conviction that social researchers should concern themselves with the discovery of basic scientific facts or relationships, geared towards the explanation of the nature of the social world, and not become directly involved in the linking of social research to action. It is somehow considered up to others to make use of what social researchers discover (Whyte, 1991). Whyte demonstrates that this is the mainstream view in sociology using two books published decades apart (Faris, 1964; Smelser, 1988), although they present an overview of the advances in sociology, neither contains any chapters examining applied sociology. This is grounded upon the belief that research is not an effective way of changing the world - not in any direct and immediate way at least (Hammersley, 1992) - in fact research and action are seen as truly incompatible. The prevailing assumption is that good science eventually leads to an improvement in practice, and presumably, thereafter, an improvement in human welfare. The key word here is 'eventually'. Ethnography practiced as an extension of 'normal science' offers no immediate solutions to the problems faced by those who are the focus of social research.

4.3.3 The character of Participatory Action Research PAR

Proponents of PAR are diametrically opposed to the ‘normal’ mainstream view of science. The production of scientific knowledge does not demand the method of detached observation of the mainstream view of ‘normal’ science. For them, it is of utmost importance, for both the elevation of science and the improvement of human welfare, that strategies are developed in which research and action are inexorably linked. In other words, they uphold that there can be no research without action and no action without research. Their aim is to improve the lot of the researched taking action at the point of research – at any rate the only way to truly understand something is to try and change it. The term ‘participatory’ in the approach of PAR signifies a belief in the concept that the researched should participate fully, and on an equal footing, with the researcher. It should therefore not be conceptualised as having similar connotations to the term ‘participate(s)’ when used in conjunction with the ER approach of participant observation.

Having provided a brief outline of the character of ER and PAR, how does ER compare with PAR?

4.3.4 Comparing Ethnographic Research and Action Research

On the face of it ER and PAR are worlds apart. They can be seen as being representative of two disparate and incommensurable paradigms. In Kuhnian terms, paradigms are defined as ‘universally recognised scientific achievements that for a time provide model problems and solutions to a community of practitioners’. See Kuhn (1970) for a full discussion of the role of paradigms in scientific development. I am using the term in a broader sense in reference to

basic assumptions about the role of social science within society. Therefore, intuitively at least, a comparison of the two schools of research should be relatively straight forward and unproblematic – as if dealing with opposites. However, even based upon a cursory rummage through the literature it can be seen that ER and PAR share many similar characteristics. For example, they are both essentially qualitative in their complexion and in both approaches it is considered inappropriate to formulate initial hypotheses and then to use situations to test these. It is worthy of note (although I do not wish to explore the implications any further here) that the first book I encountered on PAR was edited and co-authored by one William Foote Whyte, famous for his book *Street Corner Society* (1943): a landmark study in ER that remains a classic recommended text in the social sciences to this day. The ER approach rejects the fixed/closed research plan in favour of a research process moving from what have been described as ‘descriptive questions’, through ‘focussed questions’, and then to ‘selective questions’. At the same time PAR projects begin with vigorous discussion when researcher(s) and the researched exchange ideas and opinions and the form of the initial design of the project is developed. The main difference with regard to this particular issue then is the role of the researcher. The ER researcher, as the research instrument, is solely responsible for direction, content, analysis, and the conclusions of the research. In stark contrast, PAR involves the researched from ‘the initial design of the project, through data gathering and analysis to final conclusions and actions arising out of the research’ (Whyte *et al*, 1991). The possibilities of comparing ER and PAR in this way are boundless. I would, therefore, like to depart from such an analysis at this point in time and concentrate on the three main issues which provide the baseline for much of the

criticism of ER. As I have indicated there are considerable similarities between ER and PAR, therefore, they can be, on occasion, subjected to the same kinds of criticism on the grounds of reliability, validity, and representativeness.

4.3.5 Reliability

A fundamental drawback of both ER and PAR is the impossibility of ever checking on the research by repeating it as a means of verifying descriptions, findings and conclusions - in any case this would require 'objectivity' on the part of the researcher. 'Objective' observation is a fallacy, the researcher is always involved, never detached. Given that the 'objective' observation central to ER is in actuality impossible to achieve, and the observer always impacts upon the research setting - this is often referred to as the problem of reactivity. Resultant changes may range from the imperceptible to the most significant, as Chaos Theory shows how the minutest variations in input, even in the most simple of systems (and social systems are far from simple) can be multiplied beyond recognition causing vast changes in output (Gleik, 1987). Either way the research situation is now certainly not the same. These changes are, if you like, in addition to the normal dynamic changes that would occur over time. However, this is somewhat of a moot point in the case of PAR. The aim of PAR is precisely to affect change in the research situation and once changed there is no way of turning back the clock and, as there is no claim to 'objectivity', reliability must be measured by a different yardstick.

Those who criticise ER based on the grounds of its unreliability place great emphasis on the fact that everything is dependent upon the researcher as the

research instrument. However, the use of 'key informants' in making sense of the research situation may for some negate this argument. In PAR the relationship between the researcher and those involved in the research situation is not like that of the researcher/researched relationship of ER. Instead, ideally, it is one of co-researchers learning from each other. This approach to research - one of partnership in all stages of the research process, from initial design to conclusion - reduces the susceptibility of PAR to criticism on the same grounds. On a cautionary note, the co-researcher relationship is an ideal and as such, in practice, does not guarantee immunity from attack on these grounds - nor to criticisms of unreliability on any other grounds.

4.3.6 Validity

Some authors question the use of the term validity at all with regard to social research (for example, Reason, 1991; Whitmore, 1994), suggesting that the term validity is too ideologically laden. They prefer instead the term 'quality' as this allows room for the formulation of new standards encompassing divergent fields of thought. In contrast, Hammersley (1992) favours the notion that 'validity' should be a synonym for the unfashionable (for social scientists) word 'truth': 'an account is valid or true if it represents accurately those features of the phenomena that it is intended to describe, explain, or theorise'. This then begs the question, who should determine the criteria by which the claim of validity/quality/truth is granted?

As Fielding (1993) points out, 'it is precisely because the method [ER] is one of discovery it is unlikely that their audience will have any direct way of validating what the ethnographer claims'. Therefore, it has been said that the only real test of validity for ER is whether the subjects of the research accept it as a true account consistent with their 'way of life'. One could argue that this indeed holds for all kinds of research using the concept of 'way of life' in its broadest possible meaning. I would argue that again in PAR it is the partnership of co-researchers and their participation in all aspects of the research that furthers the likelihood of the research being accepted by the researched as a true account. There has been much written about how those who have participated in a decision making process will be more committed to its outcomes (for example, Evans, 1990 - Supervisory perspective; Schein, 1988 - Organisational Psychology Perspective; Huczynski & Buchanan, 1991 - Organizational Behaviour perspective), and a PAR project can be quite easily conceptualised as such a process. However, Lather (1986) refers to the concept of 'catalytic validity' – the capacity of the research process to impact participant's knowing of their reality and energise them towards self-determined action. This is the kind of validity towards which PAR should strive given its commitment to action coupled with participation.

4.3.7 Representativeness

Applications of ER and PAR are basically case studies and as such they cannot lay claim to be 'representative'. It is impossible to determine whether the social context studied is by any means typical, or representative. No matter how carefully they were selected, for investigation in the case of ER, or for action as in PAR, as with all forms of case study the generalisations that can be drawn will be

seriously restricted. According to Flood & Romm (1996), research findings should never be looked upon as simply applicable or transferable to other situations. This would in fact nullify the process of taking cues from the local context.

4.3.8 Conclusion

There are many similarities between ER and PAR. Some I have covered, others I have not, such as the actuality that they are both multi-method rather than single method approaches, also they are both reflexive though in very different ways. As far as reliability, validity, and representativeness are concerned they will always remain problematic to those outside the particular discipline. Whether it is ER or PAR - or any other approach come to that matter - it boils down to this. There are differing paradigms each with their own respective systems of verification, in this sense all scientific knowledge is relative to the paradigm under which it was produced and, to the specific verification system it has to satisfy. This may be the most significant difference of all. In ER the researcher - as the research instrument - is the expert and fulfils the expert's role and, therefore, when exposed to critique based on reliability, validity, and representativeness, they and their work must stand or fall on its own. As such, as essential and interesting as it is, in isolation, ER can amount to nothing more than a data gathering exercise.

On the other hand in the PAR co-researcher relationship at least one author sees PAR as having a mission on very much grander scale:

An immediate objective of PAR is to return to the people the legitimacy of the knowledge they are capable of producing through their own verification systems, as fully scientific, and the right to use this knowledge – including any other knowledge, but not dictated by it – as a guide in their own action.

Rahman (1991)

Thus, together co-researchers may be in a better position to fend off criticism from outsiders, on the above grounds, than those who stand alone.

4.4 What kind of Systems methodology would fit with a Participatory Action Research strategy?

Participatory Action Research as described above is not a single method so the possibility, at least, of identifying a suitable systems methodology seemed promising. However, as a candidate any such systems methodology must contain certain key elements. Elements taking account of such issues as, learning, participation, debate, and an ability to accommodate subjectivity. It should also be adaptable enough to take account of the research context.

4.4.1 Identifying a suitable systems oriented methodology

A well-tested structured approach was required which needed to be able to facilitate young people's involvement, and to provide practical action plans for improvement in the lot of the co-researchers. In addition, the approach needed to be visual in its overall complexion in order to facilitate the involvement of young people (including those with low literacy levels). Such an approach would also be in keeping with my desire to use metaphor as a means of image generation and evaluation. Further, it needed to be a suitable candidate for operation under the ethos of PAR and CST. Soft Systems Methodology fitted these requirements and

also contained the ‘space’ that would be essential for any necessary adaptations to enhance the participation of young people.

Identifying SSM as a likely candidate to form the core of my research methodology established an imperative for reflection. It has been necessary to simplify the process and therefore the diagrammatic representation presented does not reflect the many iterations that have taken place, the myriad of possible interconnexions, nor in fact the reflection that was undertaken as the process unfurled. On why that particular methodology had risen to the top and, further investigation into whether or not SSM really did fit the bill in the way that was initially suggested.

4.5 Soft Systems Methodology (SSM)

Soft Systems Methodology (SSM) is a systemic approach to problem solving developed by Peter Checkland at Lancaster University (Checkland, 1981). Wilson (1984) describes SSM as a seven stage analytical process which harnesses the concept of human activity as a means of moving from finding out about the situation to taking action to improve the situation. However, in doing so it can be misconceived as a systematic approach but, with no predefined beginning or end in practice, it should not be thought of as a linear progression. Checkland maintains that, provided the SSM user preserves the logical connexions of the methodology, the activity of ‘problem solving’ can move unhindered among the stages. This point is reinforced by Wilson (1984) who notes that ‘the analyst may start with any activity, progress in any direction, and use significant iteration at

any stage'. When considered as a whole, SSM constitutes a learning system that leads to action, in the knowledge that 'the problem' will not be 'solved' but a new situation will emerge that will lead to further learning. Checkland sees SSM as:

...an evolving methodology that has been steadily developed into a systemic process of enquiry...

(Checkland, 1992)

For Forbes (1995), SSM does not take as its starting point structures as the given determinant of behaviours, but instead suggests it:

...provides a mechanism that challenges an organisation's inbuilt Weltanschauungen (or world views) in order to find an accommodation between those beliefs. Once that is achieved the methodology derives a sensible set of activities required to achieve the accommodated position as well as identify the information and structure required to support those activities.

Forbes goes on to state that:

...of greatest importance in strategic terms is the methodology's concentration on developing an ongoing process of learning rather than a one off plan that slowly decays on a shelf.

(Forbes, 1995)

Furthermore, according to Finegan (1995), Soft Systems Methodology (SSM) is:

A heuristic and subjective approach for knowledge elicitation in complex and poorly defined areas. This methodology is designed to allow the human element of complex managerial systems to be incorporated into system design work. This is achieved by a holistic process of inquiry within a framework that compares the complex real-world problem situations with conceptual systems models.

(Finegan, 1995)

It is important to note that while the methodology is designed to allow the human element of complex managerial systems to be integrated into the system design process:

It is not easily assimilated or applied, and *its apparent simplicity may be deceptive* [original emphasis]

(Finegan, 1994)

We now turn to a brief outline of the seven stages – see also Figure 7:

- Stage 1 *Finding out or perceiving:* Information gathering, a number of methods can be used including informal observation, sampling, collection of secondary data and, informal interviews.
- Stage 2 *Expressing the problematic situation – Rich Pictures:* A rich picture is a visual summary of issues, conflicts, and other interesting features represented in a non-linear fashion, depicting the interconnectedness between various facets of the problematic situation. From the rich picture a number of themes can be surfaced and captured as a set of diverse ‘relevant systems’. Their design will be central to the improvement of the problem situation.
- Stage 3 *Formulating Root Definitions:* A root definition is basically an idealised view of what a relevant system should be, in a concise well formulated statement, in essence: what is to be done, why is it to be done, who is to do it, who is to benefit (or suffer) from it, and what are the constraints.
- Stage 4 *Building conceptual models:* Each of the relevant systems is mapped out showing the activities needed to be undertaken in order to fulfil the root definition. The model is built using the minimum number of verbs that are deemed essential to describe the discharging of the task set by the root definition.
- Stage 5 *Comparing models and ‘reality’:* The comparison stage is essentially about stimulating debate about the possible changes that could be made in order to facilitate improvement in the problematic situation.
- Stage 6 *Defining changes:* The changes which are both desirable and feasible are confirmed by further debate.
- Stage 7 *Taking action:* Implementing the desirable and feasible changes (e.g., attitudinal, structural, and/or procedural changes).

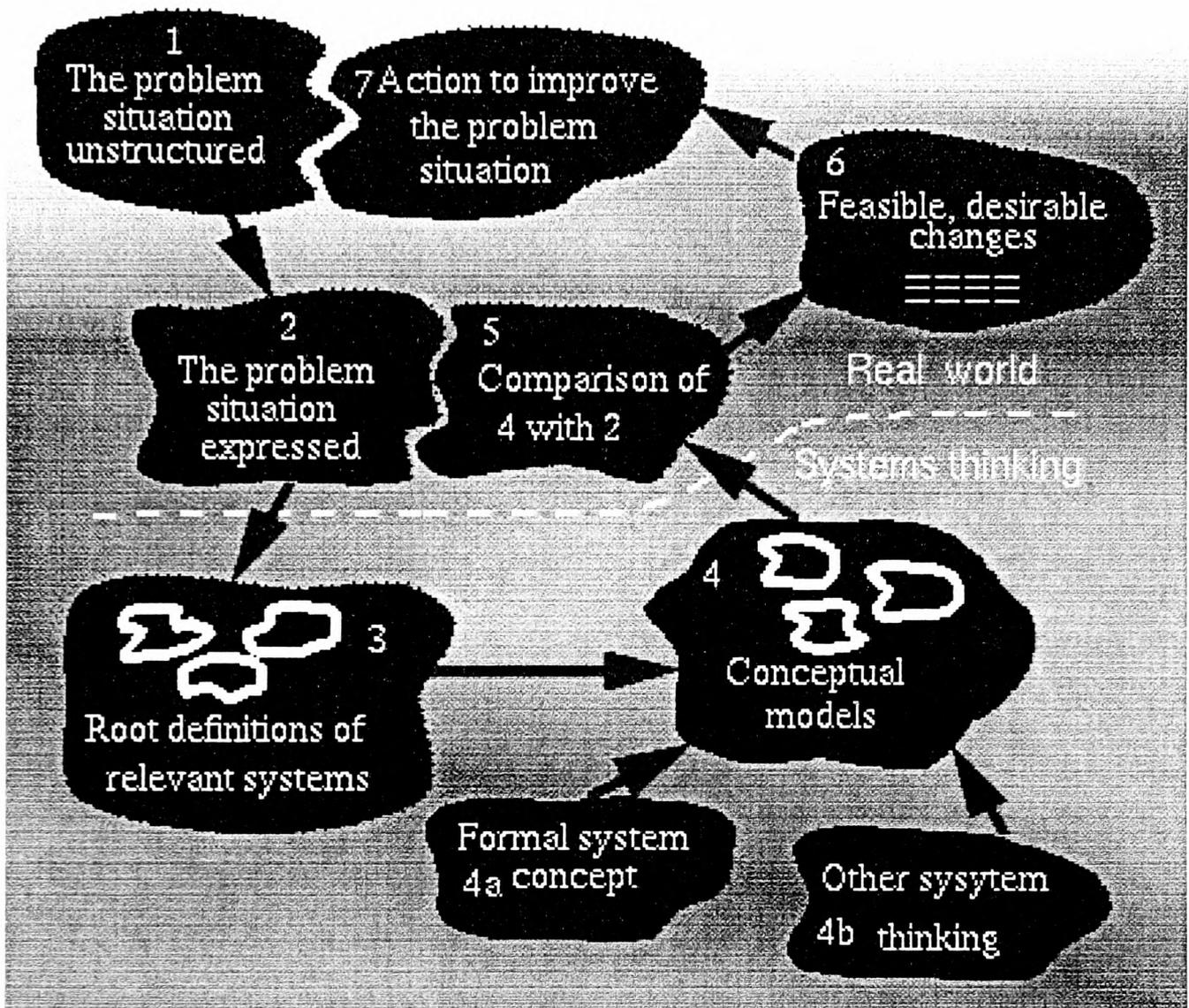


Figure 7 - Soft Systems Methodology Diagram

So far the emphasis has been on what has become known as mode 1 use of SSM.

We will now briefly examine the spectrum of use of SSM from Mode 1 (formal use) to Mode 2 (internal cognitive use).

4.5.1 Soft Systems Methodology: a spectrum of use

Experiences of the use of SSM in their ICL work have for Checkland and Scholes (1990) ushered in the recognition of a spectrum of uses of SSM from what amounts to a formal, stage-by-stage, exercise of the methodology (termed Mode 1) to an 'internal, mental' use of SSM as a mode of thinking (termed Mode 2) (Checkland and Scholes, 1990). Checkland and Scholes borrow the metaphor of the inextricable 'two-stranded rope' from Vickers (1965), to illustrate the distinction between Mode 1 and Mode 2. The metaphor resembles that of the double-helix which has been used elsewhere suggesting it is a metaphor that offers insights into the analogue. The 'two-stranded rope' of events and ideas that make up the experience of daily life, as it unfolds over time, can be expressed visually as shown in Figure 8.

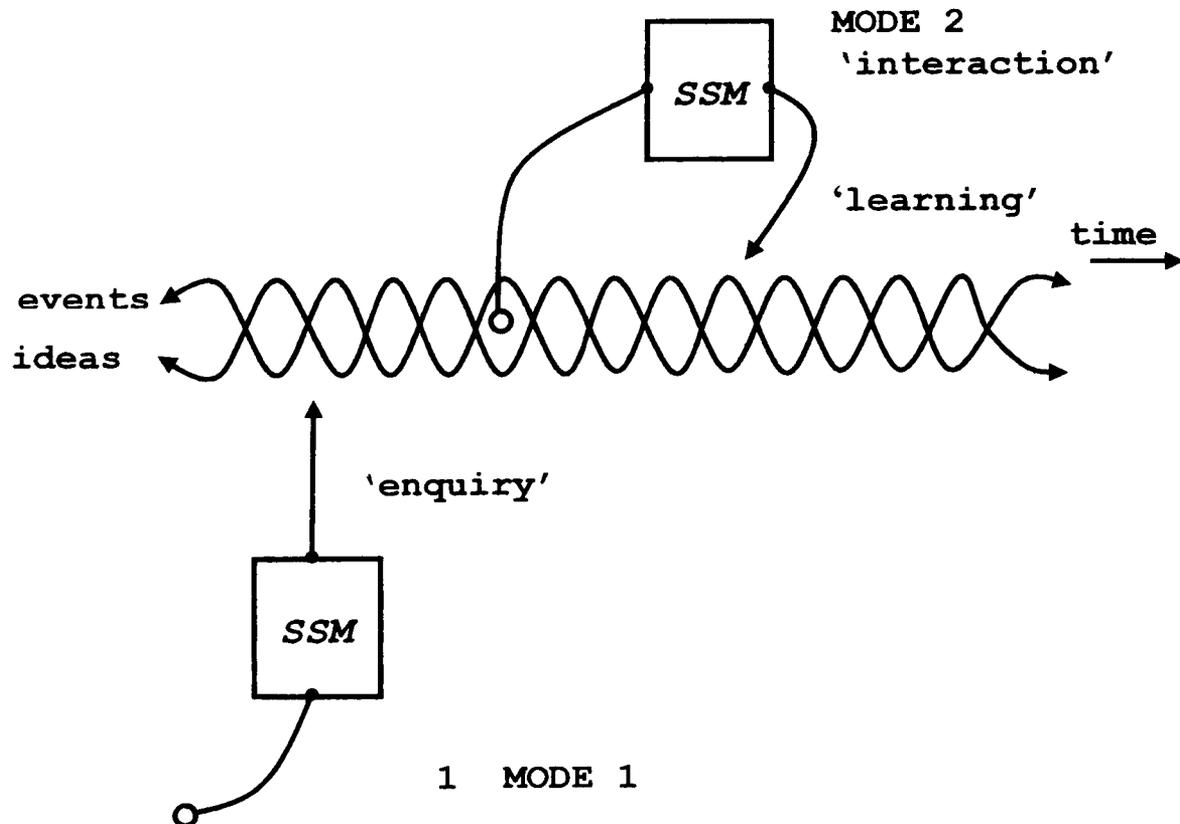


Figure 8 - SSM in use in Mode 1 and Mode 2 (Checkland and Scholes, 1990).

Mode 1 and Mode 2 uses of SSM are of course ‘ideal types’ indicating the ‘in principle ways of doing SSM’ (Checkland and Scholes, 1990). They describe how SSM could be used rather than actual descriptions of its use and, as such, the majority of uses will fall somewhere between the two:

Mode 1 of SSM:

uses a framework of systems ideas that are embodied in the seven stage model (of logic-driven and cultural enquiry)

Mode 2 of SSM, however:

...takes SSM *itself* as its framework of ideas, takes as its methodology conscious reflection upon interactions with the flux of events and ideas, and takes as its focus of enquiry the process of learning one’s way to purposeful improvement of problem situations.

(Checkland and Scholes, 1990: original emphasis)

Finegan (1995) describes how SSM has been applied to numerous situations in business as both a ‘practical and successful general purpose methodology’ – citing Mingers and Taylor (1992) who list among the common uses of SSM, organizational structuring, performance evaluation, and information systems work; Shaw and Gaines (1986, 1987) who identified SSM as an appropriate inquiry process for detailing the function of an expert system, a view supported by Rodger and Edwards (1989); SSM has also been recommended for its potential as a knowledge elicitation tool by Stowell and West (1990). Writing in the mid-nineties, Bustard, Greer and Tate (1994) reported on the increasing popularity of SSM for the investigation of requirements for computing systems. By way of illustrating this point they provide the example of how SSM has become the

preferred technique for the broader investigation of requests for new computing facilities within the Northern Ireland Civil Service.

4.5.2 What are the weaknesses of SSM?

Criticisms of SSM, according to Jarvis (2002), begin with the actuality that it is not a 'how to build a system guidebook', there being no real method. I am sure for other observers this would not qualify as a criticism, rather, as quite a compliment. Jarvis follows up this observation with the assertion that SSM does encourage commitment and bring diverse interests together. However, its 'open endedness makes it difficult to manage'. He judges that it would be dubious to see an SSM project as either a complete success or a total failure as an SSM project is more a reflection of an evolutionary approach. Jarvis's penultimate criticism of SSM is that it can all too easily pay no heed to environmental and structural determinants and also issues of power, for not all organizational members have parity of choice, and finally:

...it is naïve to think that everyone can openly discuss problems, perceptions and needs.
Openness and togetherness are implicit and explicit values of SSM...not easy values in a confused, conflict and contradiction oriented power-centred organization.

(Jarvis, 2002: see also Mingers 1980, Jackson 1982)

Jarvis also makes explicit the belief that SSM is not suitable for use by certain types of individuals. Specifically, those who feel the need for 'high achievement'. For, within SSM, the process is of equal importance as any outcome generated. The shared experience of an application of SSM will change the host organization, and this change will modify the state of perceptions about the problem and the

views toward possible ‘solutions’. And, why is this not for the high achiever?
Simply because ‘a goal is never reached!’

Another very specific weakness has been highlighted by Bustard *et al* (1994), who suggest that it is deficient of any mechanism, at least explicitly, for the identification, analysis and handling of risks coupled with any changes in the system that it helps to bring about. If this is indeed the case, in the context of computing systems, this means that any system requirements produced through SSM may include potential deficiencies that will only surface at a later stage in the development process, where their resolution is likely to be more expensive (Bustard *et al*, 1994).

4.5.3 SSM and Validity

Like many others, Dick and Swepson (1994) believe that too narrow a definition of validity has been adopted. Validity has taken on a meaning of greater relevance to one particular paradigm of inquiry than to any other, and that paradigm is experimentalist science:

‘Validity’ has come to connote precise quantitative measures arising from tight experimental control.

(Dick and Swepson, 1994)

For any paradigm that sets out to arrive at universal principles which can be applied to a variety of situations this remains a wholly appropriate definition. However, if one is to argue that other alternative paradigms of inquiry have aims

which differ from the above, and subsequently require different sorts of evidence to sustain their claims, it follows that their aims will require different methods of collection to secure the relevant evidence needed. Therefore, Dick and Swepson (1994) take their definition of validity from Dewey (1966), who said that:

...scientists, like workers in other areas, were in the business of providing 'warranted assertion': being able to mount evidence to support their convictions, at least for the moment.

(Dick and Swepson, 1994)

4.5.4 Different paradigms, different aims, different validity

It is under this heading that Dick and Swepson (1994) express their beliefs regarding the nature of three paradigms of inquiry, experimental research, ethnography and action research, and two commonalties which they share: Firstly, a wish to 'understand' the world and, secondly a wish to 'improve' the human condition. However, even within this common framework there are differences in their aims with particular regard to 'the relationship between understanding and improving the human condition', and the 'size of the world they wish to understand' (Dick and Swepson, 1994).

4.5.5 Universal or specific knowledge?

It can be argued that this is where the real crux of the differences between the paradigms lies - choices between the primacy of universal knowledge, or specific knowledge. The attendant methodologies for each of the paradigms will inevitably focus on one at the expense of the other. This is most often articulated

in terms of generalisability, although I would concur with Dick and Swepson (1994) in that it can be more usefully seen as a 'trade off between local relevance and global relevance'.

4.5.6 Achieving validity in action research

Primarily, action research is aimed at the achievement of action and understanding in 'one complex social situation at the same time – action to inform the understanding which informs the action'. Any gains in knowledge concerning human nature in general and/or methods for exploring it are only of secondary interest. Therefore, any claims as to the validity of any assertion brought about through action research depends on evidence to support its claims of change in and explanation of a complex social situation.

Dick and Swepson (1994) highlight two important strategies that can be employed to achieve validity in action research. These strategies are: the use of a cyclical process in order that interpretations may be explored, challenged, and (re)defined, and; setting up a dialectic between two dissimilar sources of information – or perspectives on them. According to Dick and Swepson (1994), SSM makes apparent these strategies.

4.5.7 Soft systems methodology as an inquiry process

In arguing that soft systems methodology when viewed as an inquiry process suitably illustrates the strategies of multiple cycles, and a dialectic between different information sources or perspectives, Dick and Swepson (1994) describe

SSM as ‘four sets of cycles, each involving a dialectic’. Each dialectic is between two different perspectives – with the researchers and other participants, alternating between the two perspectives until such time as they are ‘satisfied with the outcome’. The following is a necessarily simplified description, the cycles as described are often embedded within larger cycles, owing to the non-linear form of SSM in application.

- Cycle 1 the first cycle consists of a dialectic between the situation, and a description of the essence of that situation. The essence being described via a ‘rich picture’ representation and ‘root definitions’, serves the purpose of abstracting the essential salient features of the situation from the complexity of the situation in focus.

- Cycle 2 within the second cycle is a dialectic between the essence of the situation as described, and the conceptual models of the situation developed by the researchers.

- Cycle 3 featuring in the third cycle, is the dialectic between the conceptual models and the ‘original’ situation. Possible improvements to the situation emerge from this comparison and, as a consequence, plans for action can be advanced.

- Cycle 4 within the fourth cycle, even though it is not part of the inquiry process as such, the dialectic of implementation, between the intent of the plans generated and the need to satisfy the requirements of ‘reality’, nevertheless constitutes a further test of the research conclusions.

(based on Dick and Swepson, 1994)

The use of multiple cycles allows the early conclusions of the researcher(s) to be scrutinised and refined in the later stages. As each cycle examines the topic of study from two different perspectives, the biases of any one of them are more likely to be identified. Finally, implementation determines in a compelling way if the understanding can be used to improve the situation.

(Dick and Swepson, 1994)

4.5.8 Summary

Soft Systems Methodology has at its heart an emphasis on Action Research and is a structured planning approach with a 'proven' track record. Yet, it is not without its criticisms, amongst which are, that it is 'for the status quo', has a 'restricted' interpretive base, that its base is 'idealistic', and that it is further restricted by its reliance on 'cultural feasibility'. So, can SSM be adapted to ameliorate some of the criticisms that have been levelled at it?

4.6 Can SSM be adapted?

Here, commentary will focus on the 'transitional' adjustments that are felt to be necessary in order to carry out a programme of research that will address the issues raised.

Soft Systems Methodology (SSM) (Checkland, 1981; Checkland and Scholes, 1990) is a tried and tested methodology that has matured through over 20 years of continuous use (Flood and Jackson, 1991). The methodology itself furnishes a planning structure around a series of participative workshops. As detailed earlier, Checkland and Scholes distinguish two modes of use of SSM: Mode 1 a formal stage-by-stage use of the methodology, and Mode 2, an internal, cognitive use of SSM.

SSM (mode 2) is about learning not optimisation, it is about participation, and change brought about through debate and developed understanding (Checkland and Scholes, 1990; Mingers, 1997b): 'it is taken as given that no objective and complete account of a problem situation can be provided' (von Bulow, 1989). It

is the use of SSM in Mode 2, the ‘interaction’ mode, with learning as its focus of enquiry, which makes it a suitable candidate for use in a research situation guided by an overall PAR strategy.

However, several authors have expressed concerns about SSM’s reputed disposition to propitiate the establishment or *status quo* (see for example, Prévost, 1976; Jackson, 1982, 1991; Flood and Jackson, 1991) – concerns that have not been left unchallenged (see Checkland, 1982). These kinds of concerns are worthy of note particularly given the proposed field of application. After all, it could be argued that the relationship between an educational establishment and its young people is one of powerful systems and powerless children. The phrase ‘powerful systems – powerless children’ is a reversal of the title of an article by Malcolm, Peake, and Walker (1996), which looks at the needs of children and families under increasing inter-agency conflict. It seemed appropriate to take a method from Critical Systems Heuristics (CSH) (Ulrich, 1983) in the hope of addressing the above concerns, although ‘ultimately it is people, not methodologies, that choose to act in ways that disturb the status quo’ (Mingers, 1997b).

4.7 Similarities between SSM and CSH

In order to ascertain the value and possibilities in linking CSH with SSM in a PAR process, we can begin by looking at some similarities between the two methodologies.

All methodologies are based, implicitly or explicitly, upon specific philosophical assumptions about the social world and thereafter the kinds of action deemed appropriate (see Kuhn, 1970; Burrell and Morgan, 1979). These sets of assumptions are often referred to as paradigms - again, I am using the term paradigm in its broadest sense. Could it be that SSM and CSH share the same kind of assumptions about the social world?

Mingers (1997a) argues that it is generally accepted, within the systems community, that there are three distinct paradigms which can be characterised, if somewhat crudely, as: hard (positivist), with objectivity as its cornerstone, that considers the social world to be the same as the natural world in its complexion; soft (interpretivist), that deals with a social world based on subjective meaning and interpretation that makes it fundamentally unlike the natural world; and critical, that acknowledges the need for both the hard and the soft but which places especial emphasis upon the oppressive and unjust nature of many social systems.

SSM was born of a need to address ill-defined problem situations in a social reality that is not 'given' but (re)created by its members and as such clearly lends itself well to being categorised within the soft interpretivist paradigm (Jackson, 1982). Although Jackson's initial reference is to the interpretive sociological paradigm, according to Burrell and Morgan's schema, he then shows how soft systems thinking shares the rudimentary assumptions of that particular paradigm. Although CSH does not clearly acknowledge the need for both the hard and soft it does contain an express commitment to the inclusion of those affected by designs

or decisions and provides citizens with the means to arrive at and challenge the normative premises that flow into any actual systems design. Arguably, therefore, CSH could be said to fit within the critical systems paradigm. If the methodologies of SSM and CSH do not inhabit the same paradigm this raises a philosophical problem, indeed according to Midgley (1995) the paradigm problem can be summarised as follows:

All systems methodologies make different philosophical and theoretical assumptions – i.e., they are born of different paradigms – so if we wish to mix them, or bring them together in a framework, we have to justify this at the level of philosophy.

(Midgley, 1995)

For some authors (for example, Burrell and Morgan, 1979; Jackson and Carter, 1991) this is an unachievable quest as paradigms are ‘irrevocably incommensurable’ (Midgley, 1995, 1997). Although a deep chasm may still exist between the hard (quantitative) and the soft (qualitative) paradigms (Schwaninger, 1997), according to Brocklesby (1997), today the possibility exists that an agent can, at a personal level at least, reach ‘an accommodation – or some form of complementary posture’. One can therefore ask: are SSM and CSH so far apart?

4.7.1 Evolutionary Origins

To use a biological metaphor, although SSM and CSH can be seen as different species, they are certainly of the same genus. A genus being a group of species closely related in evolutionary origin characterised by important shared traits. SSM and CSH have the following common evolutionary origins and shared traits.

Firstly, both Ulrich and Checkland acknowledge the influence that the work of the American pragmatist, C. West Churchman, has had on their own thinking. According to Checkland, SSM can be seen as 'the operationalization of Churchman's philosophical analysis of enquiry systems' (Checkland, 1981). Similarly, CSH is the pursuance of Churchman's ethical line, with *The Systems Approach and Its Enemies* providing a major source of inspiration for Ulrich's own endeavours (Ulrich, 1983).

Secondly, both Checkland and Ulrich pursue participatory agendum. As Forbes (1995) reminds us, human life is in itself inalterably subjective. Anyone engaged in 'guiding human destiny' has at once to deal with both their own subjectivity and the subjectivity of those they work with – a position argued by, amongst others, Dilthey (1931), Lewin (1946), Kuhn (1970), Vickers (Open Systems Group, 1984). Specifically, Lewin concluded that any intervention in a social group had to be based on a 'collaborative/participative' approach and not treat group members as objects to be controlled (Forbes, 1995).

It has been said that Soft Systems Methodology makes the following basic assumptions (softor.html, 1998):

- managers live in a world of an ever changing flux of interacting events and ideas and that management is reacting to that flux to achieve organised action
- different individuals and groups make different evaluations of events and this leads to them taking different actions
- concepts and ideas from systems engineering are useful
- it is necessary when describing any human activity system to take account of the particular image of the world underlying the description of the system and it is necessary to be explicit about the assumptions underlying this image
- it is possible to learn about a system by comparing pure models of the system with perceptions of what is happening in the real world problem situation

Some of these assumptions directly reflect the very same position. Indeed, according to Darzentas, Darzentas and Spyrou (1994):

SSM is primarily a methodology for learning through participative action, in which problem owners, clients, and stakeholders may all be a part of the problem-solving team working within the problem situation.

(Darzentas, Darzentas and Spyrou, 1994)

Thirdly, it can be argued that SSM and CSH exist as ‘ideal’ planning in one form or another. The conceptualisation of Checkland’s SSM as a form of ‘ideal’ planning, reveals what is arguably a wasted opportunity. Working in the ‘ideal’ realm of systems thinking about the real world whilst, at the same time, subscribing to the notion of incrementalism is bound to restrict progress. With particular reference to the design of human activity systems in ‘Greenfield’ situations, Checkland (following Popper, 1945) notes that: ‘incrementalism and trial and error are the wisest approach’. The use of the 12 boundary questions from CSH in the ‘ought’ mode is potentially a way of addressing this and maximising the opportunities that SSM no doubt provides. For example, Checkland and Scholes (1990) corroborate von Bulow’s (1989) assessment of the revised process of SSM (Checkland, 1988) in which von Bulow stated:

....The reflection and debate is structured by a number of systemic models. These are conceived as holistic *ideal types* of certain aspects of the problem situation rather than accounts of it.

(von Bulow, 1989: emphasis added)

The 12 critically heuristic boundary questions of CSH can be put to use in one of two modes, the 'is' and the 'ought' modes. Ulrich's 'ideal' is formed by the answers to the 12 boundary questions in the 'ought' mode determining what 'ought' to be. Comparing the two forms of questioning about designs or decisions provides a means of evaluating the current standing in terms of whether or not its movement is approaching the 'ideal' (i.e., what ought to be). According to Ormerod (1997):

Given that the soft methods are based on similar principles (such as the importance of recognising that an intervention is a social act in a social situation involving many actors or stakeholders who have different viewpoints) there is no reason to suppose that they will not mix well in practice.

Ormerod (1997)

SSM and CSH also share some common evolutionary aspects and traits (such as similar principles), and there is no immediate reason to suppose that they too will not mix well in practice. However, instead of staying within the same paradigm and thereby doing more of the same, mixing the methods of SSM and CSH in this research is aiming to be more comprehensive by cutting across the (soft and critical) paradigms.

4.7.2 Mixing Methods

Having noted the commonalities between the two systems methods, we can now begin to review what other writers have said about 'mixing methods'. In discussing whether what I propose to do is (or is not) 'mixing methods', it is necessary to define what is meant by the term 'method' and also by the term

‘methodology’ which is commonly used in relation to both SSM and CSH - this is particularly important as they are often confused or considered interchangeable in the literature. For present purposes they can be defined as follows: a *methodology* is a conceptual inventory of what needs to be done, whereas, a *method* is one way of fulfilling an enterprise set out in the methodology.

According to Mingers (1997b), the process of linking methodologies requires that they be systematically decomposed, thus distinguishing detachable elements and any functions or purposes they might have. Mingers’ proposition is that this can be achieved using three distinctions, between philosophical principles (why), methodological stages (what), and the techniques (how):

The primary focus of a methodology is its stages – a conceptual account of what needs to be done. These are justified by the principles, and actualised by a set of activities or techniques.

(Mingers, 1997b)

However, I would argue that the term technique implies a process that is mechanical in its complexion. Dictionary definitions of the term technique include: 1. proficiency in a practical or mechanical skill (The Collins Paperback English Dictionary, 1990); 2. mechanical skill in an art (The Concise Oxford Dictionary, 8th Edition, Oxford University Press) - such that if a technique is correctly applied a predictable result will be forthcoming. I prefer to focus in on the ‘set of activities’ and offer the term *method* as a description of the *how*’s of a methodology, for although a method may produce a particular output, there can be no guaranteed results (nor indeed any concrete claim to a ‘correct’ application). As Brocklesby points out in this quotation taken from a section of ‘Becoming

Multimethodology Literate' (Brocklesby 1997), the title of which is 'Maturana's Basic Proposition on 'Cognition':

Nothing external to a system can determine what happens to it. No external force can determine its own effect. The system itself determines what [environmental] forces are recognised as triggers and what outcomes are possible.

(Brocklesby, 1997: original emphasis)

My intention is to take a detachable element (method) from CSH (see Figure 9) to work within SSM as part of a process of complementary methodology enhancement. That is to take the 12 critically heuristic boundary questions in the 'ought' mode – and adapt them to work within this proposed application of SSM. However, the intended adaptation is one that I would consider to be a non-substantive change: i.e. the re-wording of the 12 boundary questions to take account of contextual peculiarities. This is a task to be carried out with the co-researchers. Figure 9 (adapted from Mingers, 1997b), shows how a decomposition of SSM can be carried out - focusing on the expression of the real-world situation and the modelling of relevant systems - using the distinctions of philosophical principles, methodological stages, and methods. It incorporates the alternative method drawn from CSH within the host methodology.

In their critique of CSH Flood and Jackson (1991) note, from practical experience, that there are difficulties in the integration of the findings of the 12 is/ought questions in intervention. They note that the application of the 12 questions in the 'is' and 'ought' modes can '...reveal the social system design and all that implies. What is not evident is how to integrate these findings in intervention' (Flood and Jackson, 1991).

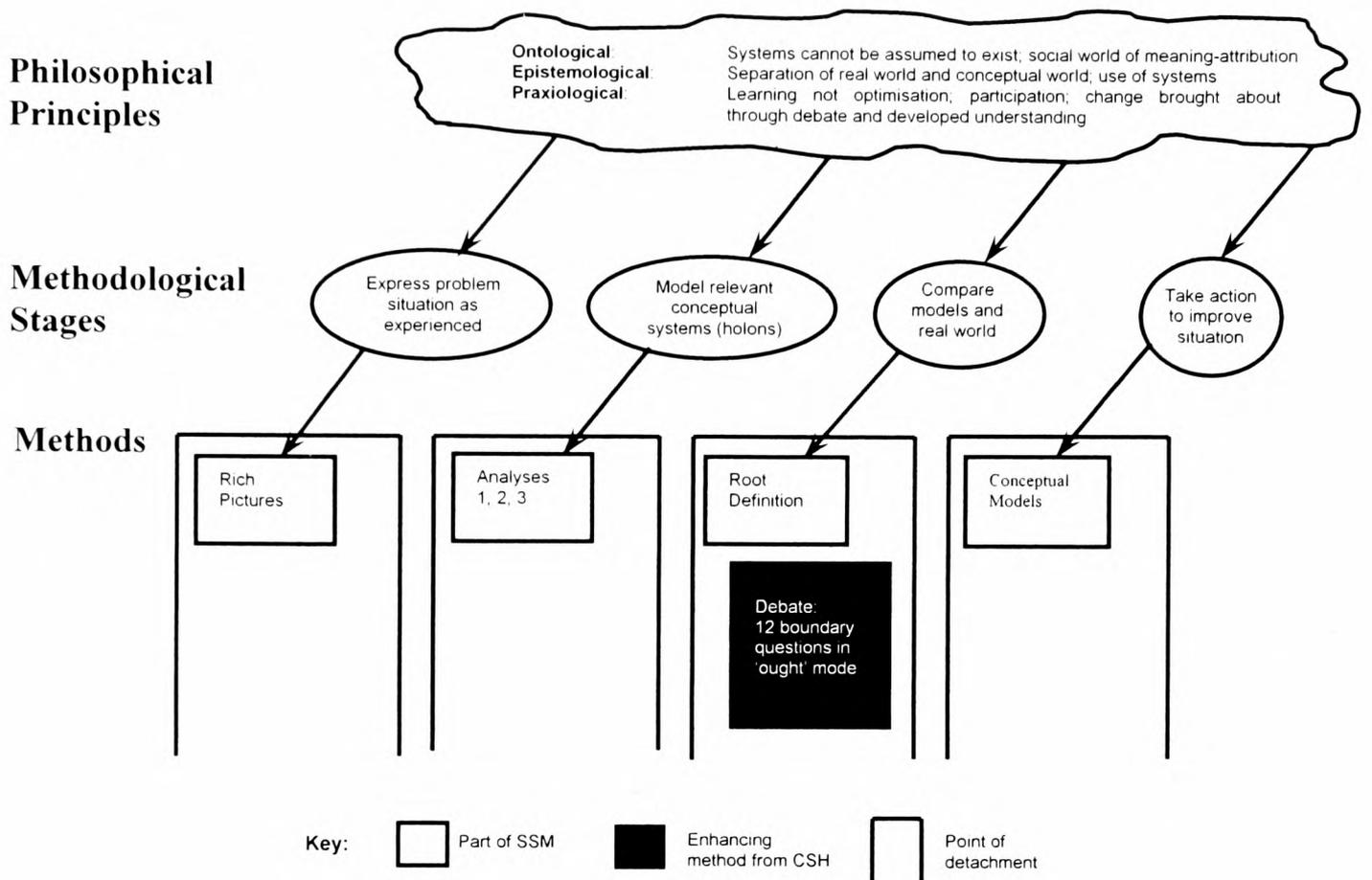


Figure 9 - Decomposition of SSM showing alternative CSH method

It is hoped that the two methodologies of SSM and CSH can be brought together to form a symbiotic relationship. Symbiosis originates from the Greek *symbioun* (to live together), and in biology it is the interdependence of two organisms of different species. In this case it is not the intended scenario to create an antagonistic symbiosis, where one organism is harmed in satisfying the needs of the other - a relationship more commonly known as parasitism - but, to encourage the type of symbiosis resulting in mutual benefit to the independent organisms, or

symbionts, that is commonly known as mutualism. More specifically, the type of symbiosis known as commensalism, an association between two different kinds of nonparasitic animals, that is harmless to both and is mutually advantageous (Encarta®, 1997). It is hoped that by employing one of the methods of CSH inside SSM, which can provide practical action plans for intervention, this may constitute a move toward alleviating some of the concerns regarding its integration in ‘intervention’, whilst simultaneously, through the ethical emphasis of CSH, addressing concerns about the host’s reputed disposition to propitiate the establishment or *status quo*.

The proposed research is not mixing methodologies because the methodologies employed, with an Ackovian sense of ‘ideal’ planning in mind (Ackoff, 1982), that is SSM and CSH, are to be used outside their own methodological heritage. It is mixing methods because they have in fact become subsumed by the methodology designed for this particular research situation at this particular time and place, and it is this that has resulted in their re-categorisation as methods. This is precisely the relationship between CSH and IP defined by Midgley (1997).

That is not to say that they become mere tools or techniques. Employing SSM in an interactive mode, with the production of multiple root definitions and CSH exposing a diversity of competitive and potentially conflicting world views means that there can be no guarantees that a particular result will come from their correct application - the spirit in which they are used will still be one that has space for individual characteristics and style. Therefore, the ‘constitutive’ and ‘strategic’ rules (Naughton, 1977) that define SSM (and CSH) played a key part in guiding the research – see Tables 2 & 3.

For example, it is the constitutive rules of SSM regarding the defined outputs of stages 2 to 6 that provide some support for the use of CSH as a means of evaluating root definitions. The rules state that in stage three root definitions should be evaluated by the CATWOE criteria. However, there is a note attached to this rule, as there is to the rule concerning the assembly of conceptual models, which states:

It is of course possible in principle that these ways of tackling stages 3 and 4 will later become strategic rules; they are constitutive at present, in the *absence of alternatives* which experience has shown to be valid.

(Checkland, 1981: emphasis added)

One of the aims of my research is to evaluate whether CSH is such a valid alternative.

The constitutive rules have since been rewritten to take account of the recognition of the potential spectrum covering the modes of use for SSM, defined by the extremes of mode 1 and mode 2 - the rules cover all but the extreme use of SSM in mode 2. It is the fourth of these new constitutive rules that is of particular significance:

4. Since SSM can be used in many different ways in different situations, and will in any case be interpreted somewhat differently by each user, any potential use of it ought to be characterised by conscious thought about how to adapt it to a particular situation.

(Checkland and Scholes, 1990)

However, it is unclear whether these conscious adaptations should be made from within or without.

4.7.3 Constitutive rules

- The complete methodology is a 7 stage process
 - Each stage from 2 to 6 has a defined output:
 - Stage 2: rich picture; relevant systems
 - Stage 3: root definitions evaluated by CATWOE criteria*
 - Stage 4: conceptual models of the systems described in the RDs built by assembling and structuring verbs*
 - Stage 5: agenda of possible changes (derived from comparison of CMs with 'rich picture' expression of problem situation)
 - Stage 6: changes judged with actors in the situation to be (systemically) desirable and (culturally) feasible
 - Conceptual models should be checked against RDs and 'formal system' model
 - Conceptual models should be derived logically from RDs *and from nothing else*
 - Conceptual models are *not* descriptions of systems to be engineered (although stage 6 may yield a decision to engineer a system)
-

Strategic rules (some examples among many possibilities)

- Preliminary expression conducted by searching for elements of structure and process and examining the relation between the two
 - Expression not conducted as a search for 'systems' in the problem situation
 - Expression may be facilitated by asking 'resource allocation' questions:
 - What resources are deployed in what operational processes etc.
 - How is this monitored and controlled?
 - Problem themes – i.e. one-or two-sentence blunt statements – used to focus attention on interesting and/or problematic aspects of the situation
 - Iterate, especially: relevant system → RD → CM → comparison → relevant system
 - Set up stage 5 as a debate with important actors in the situation
...etc. . . .etc.
-

* It is of course possible in principle that these ways of tackling stages 3 and 4 will later become strategic rules; they are constitutive at present, in the absence of alternatives which experience has shown to be valid.

**Table 2 - Constitutive and strategic rules of the Soft System Methodology
(Checkland, 1981; after Naughton, 1977)**

Constitutive rules

- 1) SSM is a structured way of thinking which focuses on some real-world situation perceived as problematical. The aim is always to bring about what will be seen as improvements in the situation, and this is true whether or not the work done is part of normal day-to-day managerial work (defining managerial in the broad sense) or a special highlighted study.
 - 2) SSM's structured thinking is based on systems ideas, and its whole process has yielded an explicit epistemology. Any account of work which lays claim to being SSM-based *must be expressible in terms of that epistemology* whether or not SSM language was used as the work was done.
 - 3) The full claim of 'SSM was used' (implying some version of the approach as a whole) ought to refer only to instances which the following guidelines were followed.
 - (a) There is no automatic assumption that the real world is systemic. If part of the real world is taken to be a system to be engineered, then that is by conscious choice.
 - (b) Careful distinction is made between unreflecting involvement in the everyday world (the unfolding flux of events and ideas) and conscious systems thinking *about* the real world. The SSM user is always conscious of moving from one world to the other, and will do so many times when using the approach.
 - (c) In the systems thinking phases, holons are constructed. (These will usually take the form of purposeful 'human activity systems' which embody the four basic ideas: emergent properties, layered structure, processes of communication and control.)
 - (d) The holons are used to enquire into, or interrogate the real world in order to articulate a dialogue, discourse or debate aimed at defining changes deemed desirable and feasible.
 - 4) Since SSM can be used in many different ways in different situations, and will in any case be interpreted somewhat differently by each user, any potential use of it ought to be characterised by conscious thought about how to adapt it to a particular situation.
 - 5) Finally, and again because SSM is methodology, not technique, every use of it will potentially yield methodological lessons in addition to those about the situation of concern. The methodological lessons may be about SSM's framework of ideas, or its processes, or the way it was used, or all of these. The potential lessons will always be there, awaiting extraction by conscious reflection on the experience of use.
-

**Table 3 - Constitutive rules – characterising the whole spectrum of use of SSM
(Checkland and Scholes, 1990)**

4.8 Project Design

According to Brewerton and Millward (2001), formally defined:

...the design of a study pertains to the strategy or schedule used to collect evidence, to analyse the findings and from which to draw conclusions.

Decisions about what constitutes a suitable project design are comprised of considerations at three levels. Firstly, at its broadest level, the researcher must decide whether the focus of the investigation is going to be largely quantitative or qualitative or (both) – essentially, this will, to some extent, be dictated by the kind of ‘evidence’ required by the host paradigm. Or, in other words, taking into consideration the audience you are trying to ‘convince’. Secondly, at the next level of consideration, a decision as to the actual design of the study must be reached. Brewerton and Millward (2001), propose that there are three main broad classes of design, these are:

- case study - dealing in-depth with a single entity such as an organization or a particular issue,
- correlational – investigating relationships between factors within an organizational setting, and
- experimental – examining differences, perhaps over time or across situations.

Thirdly, at the lowest level, how ‘evidence’ is to be collected. For example, structured or semi-structured interviews, workshops, or observation. If a quantitative stance is required, what form will the data need to be in? If, on the other hand a qualitative approach is adopted, what will be the most appropriate method(s) with which to collect data?

My initial reflections as laid out above led to the emergence of what amounts to a case-study design.

4.8.1 The case-study or 'now' design

In Brewerton and Millward's terms, I opted for the 'simplest of all designs', the case-study, a...

...description of an ongoing event (e.g., organizational change) in relation to a particular outcome of interest (e.g., strategies of coping) over a fixed time in the 'here-and-now'.

(Brewerton and Millward, 2001)

The advantages of this form of design are as follows:

- It allows for far greater depth of examination of a particular situation than do other designs;
- It increases the potential for yielding 'rich' information and may draw out fresh leads or generate new questions that might otherwise have remained below the surface;
- Those involved often make up a fairly well defined group enabling the researcher to provide descriptions of events in detail.

However, there are also problems with this design and these are largely concerned with issues regarding interpretation. According to Brewerton and Millward (2001), there is no guaranteed method available for determining the impact of

events not systematically controlled, or indeed where a baseline with which a comparison could be drawn is absent. They suggest that one way of overcoming the technical difficulties of interpretation is to:

...compare the outcomes against some absolute standard of success (i.e. something agreed in advance as the criterion against which the event can be compared). For example, the change has/has not yielded the desired consequences identified on an *a priori* basis as 'desirable'.

(Brewerton and Millward, 2001)

Other problems with this form of design include:

- becoming preoccupied with minutiae
- loss of 'impartiality' through too great an involvement
- difficulties with analysing the information yielded (time and complexity)
- evidence that cannot be generalised beyond the local circumstances
- a sense of 'being under scrutiny' amongst the participants if they know they are being researched

It has been suggested that several distinctive types of case-study research exist (Hilliard, 1993). Amongst these types are narrative case study research, single-case experiments, single-case quantitative analysis and combined quantitative/qualitative studies.

4.8.2 Narrative case studies

Narrative case studies involve the employment of qualitative techniques to draw out and analyse descriptive accounts. Essentially these studies are concerned with sense making: making sense of the ‘stories’ individuals recount about particular aspects of their life experiences. There are a number of methods by which these stories can be harvested: for example, interviews, workshops and contemporaneous accounts such as diaries or journals. Authenticity and completeness remain the foremost issue in this kind of research. And, according to Brewerton and Millward (2001), this is for more the most part reliant on the degree of trust the ‘informant’ has in the ‘researcher’. As there is a greater emphasis on the researcher to comprehend the *meaning* of what it is that is being said. Studies of the lives of historical figures, for example Runyan’s (1981) study of Van Gogh, demonstrate how researchers can ‘construct’ an account of life. Contrary to the belief of the positivist position, were:

...the accumulation of data leads inevitably to a convergence on an ‘agreed truth’. The situation is more one of interpretation being open to reinterpretation and so on.’

(Brewerton and Millward, 2001)

It is the harnessing of these potentially competing interpretations that can lead to the emergence of further ‘hypotheses’ to guide further iterations of inquiry, data gathering and analyses.

4.8.3 Single-case experiments

This form of case study – also known as ‘n=1’ or single-subject studies - consists of the methodical assessment of change in individual cases. For example, the impact of a program of organizational development on individuals. They aspire to verify and assess specific aspects of change in organizational life that can be identified as being directly attributable to specific intervention. This usually encompasses systematic assessment before, during and after the fact of the intervention, see Table 4:

Phase		
Pre-intervention	Intervention	Post-intervention
assessment to provide a baseline for the intervention	ongoing assessment displaying the actual effect of the intervention	follow-up assessment to measure the stability of the change

Table 4 - Systematic assessment of single-case experiments

In its simplest form this ‘time series’ analysis corresponds to a ‘before’ and ‘after’ measurement:

The assumption underpinning this single-case approach to impact evaluation is that change will be meaningfully and visibly demonstrated and observed.

(Brewerton and Millward, 2001)

Brewerton and Millward (2001) highlight, with the example of a team development event's effects on a particular individual's performance in the work place, how ascribing responsibility for the changes observed to the intervention with any degree of certainty would be problematical in the absence of some basis of comparison by which to minimise the possibilities for other explanatory factors. In spite of this:

...impact evaluation (even in the single-case scenario) can provide some means of documenting what works in a particular situation, and to provide a source of grounded hypothesis (in the 'action research' sense) for intervention refinement and/or further (perhaps quantitative) experimental or correlational research.

(Brewerton and Millward, 2001)

There is a long history of contribution to the knowledge base of the systems community by the case study. As Midgley (2000) points out, a great deal of Operational Research and Management Science knowledge is founded on evidence derived from the case study (see, Lathrop, 1959; Barish, 1963; White, 1970; Dando *et al*, 1977; Raitt, 1979; Malin, 1981; Rosenhead, 1986; Keys, 1989,1998). This established track record makes the case study a wholly appropriate approach for this current programme of research.

4.8.4 Issues in case-study research

Whatever the methods employed, there are a few fundamental methodological issues that remain constant across the approach. These are, issues of generalization, written presentation and, validity. These issues are outlined below:

4.8.4.1 Generalization

Even if a truly 'rich' appreciation of a research situation has been gathered it is still impossible to draw conclusions from single-cases which could be applied to a broader population in any meaningful way:

It should be noted that this issue applies to any single piece of research, i.e. no one study, no matter how tightly designed will ever provide *conclusive* [my emphasis] evidence which can be generalized beyond that specific research situation.

(Brewerton and Millward, 2001)

So, 'robust' findings cannot be claimed until a number of studies yielding similar results have been recorded. However, it is possible to move towards a case for generalization by holding up single-cases as *exemplars* of what it is that might be possible. On the other hand it is possible, logically at least, to employ a single-case in order to contest any applicable existing theory.

4.8.4.2 Writing up case study research

Basically, there are three devices for writing up case-study research. These are the linear analytic framework, and the chronological structuring and theory building approaches. Firstly, the linear analytic framework is essentially a replication of the standard journal format, for example; introduction, literature review, method, results, discussion, conclusion. Secondly, chronological structuring recounting the study through the application of 'time-series' analysis, or organizing an account of the research undertaken as a reflection of its 'stages'. One of the hazards of which to be aware when adopting this particular approach to writing up is a tendency to place too heavy an emphasis on the background of the study, therefore, neglecting the outcomes somewhat. Thirdly, the theory building

approach, as its name suggests, focuses on the theoretical implications of the research findings, providing theoretical foundations for further suggested research applications.

A difficulty that will be encountered, no matter which subsequent framework is adopted, is that of reducing a complex non-linear process along with its attendant multiple iterations and interactions to linear prose.

4.8.4.3 Case study validity

There are several criteria which can be used to consider the validity of any given case-study. According to Brewerton and Millward (2001) these include, but are not necessarily restricted to: *significance* – the subject matter is of interest to the public and/or the research community; *completeness* – that a real sense of understanding of the ‘whole’ case is being conveyed; *consideration of alternative perspectives* – drawing on the work of other researchers; *sufficient evidence is provided* – in order that the reader can form their own judgements regarding the research findings; *sensitivity and respect is shown* – in the handling of the ‘disclosures’ in reporting and, for the part played by participants in the research process itself.

5 Research Project Background

Chapter 8 takes as its starting point the concept which was the inspiration for the practical aspect of my research: ‘voice of the child’, itself derived from the UN Convention on the Rights of the Child. The following is a necessarily cursory review of some of the vast array of literature that underpins the concept of the ‘voice of the child’, for any one of the following areas could be an entire research project in its own right. After a brief introduction four areas are introduced. First, the question is posed, What is a ‘Child’? Second, What is it that constitutes ‘Childhood’? Third, What might be considered to be the basis for ‘Children’s rights’? And, lastly, What is meant by the phrase ‘Children’s Voices’?

5.1 The Voice of the Child

There is a tendency for adults to consider the next generation as a retrograde step. As a direct result young people’s ability to accept responsibility and their potential for making sensible and informed decisions is underestimated and undermined: often children’s voices are regarded as immature and irrelevant. This ‘Adulthood’ is endemic in this country’s culture (Hills, 1988).

However, in the United Kingdom, of late there has been, an increase in the demand for children’s voices to be heard, and an emphasis on children’s rights to participation in matters affecting their lives. This is due, in part, to Article 12 of the United Nations Convention on the Rights of the Child. The convention, ratified by the UK Government, affords children capable of forming their own views the right to express those views freely in all matters affecting them. More,

it provides that those views should be given due weight according to the child's age and maturity.

Consistent with the Rights of the Child, the Children Act 1989 transformed the law affecting children's welfare in Britain. It clearly sets out a duty to ascertain the wishes and feelings of the child when decisions affecting them are made. However, consultation with, rather than decision making by, the child is a recurrent feature of the Act, giving the child a voice rather than responsibility for decision making.

As my research into the 'voice of the child' was action based, and participatory in its complexion, I opted to tackle this particular review in a purely pragmatic fashion. Following the rationale of Participatory Action Research (Whyte, Greenwood, and Lazes, 1991), I did not pursue a conventional exhaustive literature review, prior to the identification of the situation specific problems in association with the people involved in *our* research *together*. This is because, in my opinion, the conventional approach harbors the danger of undermining the benefits to be gained by taking cues from the local context. However, the literature was drawn upon as the research progressed and, therefore, was visited on several occasions before the research was completed.

In light of the above, as a point of departure for this exercise, I chose to limit my searches to books and articles that held within their records both the keywords: 'Child(ren)' and 'Right(s)' - as the concept of 'children's rights' is that which underpins the UN Convention on the Rights of the Child and, thus, provides the

conception of the 'voice of the child'. Searches were conducted using both electronic methods (CD ROM, BIDS, Library Computer) and manual methods (browsing likely journals, 'snowballing'). A conscious effort was made to avoid the veritable plethora of literature on the UN Convention and the Children Act 1989 published in the area of British Law. From a legal perspective the concepts of 'Children's rights' and the 'voice of the child' appear to have very narrow definitions. The vast majority of the literature concentrates upon the issues surrounding 'legal duties', therefore neglecting the wider, one might say moral, implications provided by the UN Convention.

Firstly, it may be pertinent, when discussing 'children's rights', to define the concept of a 'child'.

5.2 What is a Child?

The question 'What is a child?' may seem, taken at face value, a simple one. After all, the term 'child' is widely used by the public, professionals, and academics alike. However, any attempt to answer such a question soon exposes a perhaps hitherto unrecognized and extraordinary complexity. For Franklin (1986) for example, a little thought on the subject immediately disperses any sureness of a definitive answer and, at the same time, stimulates further questions. For example, would the question raise the same response today as it would in Queen Victoria's day? Do Western accounts of childhood beg reconsideration when confronted with the often harsh realities of the developing World - or for that matter the transitional countries of the northern hemisphere where necessity may dictate that children should work from an early age? Childhood is surely an elusive concept!

5.3 Childhood as an elusive concept

In light of the above Franklin (1986) offers a cautionary note on the prospect of a simple formula that will capture the diversity of the experience of childhood. According to Franklin, it is important to offer for consideration, at the very outset, the following five points about childhood:

1. Childhood is not a single universal experience of any fixed duration
2. The existing division between the two age-states is not only arbitrary but also incoherent
3. Children are defined in a negative way as 'non-adults'
4. The term 'child' has a connection less with chronology than with power
5. Childhood is a fairly recent invention

First, childhood is a cultural construction that, rather than being fixed, is historically shifting, the dividing line between childhood and adulthood having varied considerably over time. Second, the incoherence of the division between the two age-states can be illustrated using the UK as an example. It is perfectly possible to envisage the transition into adulthood as a process consisting of many of stages. For example, being considered capable of sexual activity at age sixteen, driving at seventeen, and yet, not qualifying for the adult activity of voting until aged eighteen. Third, childhood extends from early infancy to eighteen years (or 21 years in the US). Within this far-reaching age range exists a diverse catalogue of needs, abilities, and potentials. Yet, this diversity is shrouded by the adult assumption that 'all young people are 'children' and alike in the same sense that they are incapable of adult activities' (Franklin, 1986). Fourth, the term 'child' tends to distinguish a power relationship rather than any chronological age, having apparently being originally used as a term to describe those of low status.

Franklin attaches particular importance to this point since it portrays the actuality that the question ‘What is a child?’ is ultimately answered by those in authority – the powerful in society. This is illustrated by the actions of the powerful in the southern states of America where slaves seemed to exhibit the attributes of subservience and dependence, and were, thus, accordingly called ‘boy’. Fifth, according to Franklin, most historians would concur with the judgement that ‘the very idea of childhood is a European invention of the last 400 years’. Before then:

as soon as the child could live without the constant solicitude of his [sic] mother, his nanny, or his cradle rocker, he belonged to an adult society’

(Franklin, 1986)

5.4 Childhood as an ‘invading’ norm

Supposing that Franklin’s five points are correct, and that ‘childhood’ is indeed time and culture dependent, there is at least one other author who’s writings would appear to reflect the need for Franklin’s claim for caution. In an article on childhood and international policies, Jo Boyden (1990) claims that:

Under colonial rule and the more recent influence of the United Nations and international legislation on children’s rights, the images of childhood favoured in the industrial North have been exported to the South. The view that childhood is a fixed notion ‘defined by biological and psychological facts’ rather than by culture or society is explicit in international children’s rights legislation. The rights lobby is in the forefront of the global spread of norms of childhood which are integral to the history and culture of Europe and North America.

(Boyden, 1990)

However, this caution may to some be unnecessary, for according to Bennett (1996), research is readily available in the field of child development to indicate that, notwithstanding cultural variations, specific needs of children do indeed exist. Such needs can be universal, or age specific. Thus, it could be argued that answering the question posed earlier, 'What is a child', may be less pressing than at first thought.

The fulfilment of these needs is the fulfilment of a child's rights (it appears that in this context at least, Bennett considers the terms 'needs' and 'rights' to be interchangeable). These 'universal needs' coincide closely with the needs of all humans (material security, shelter, health, education, participation, and non-discrimination) - whilst age-specific needs are said to be simply conceptualised by matching them to the four broad transitions of childhood – the family or crèche period, the nursery school period, and the two periods of formal schooling, primary and secondary (Bennett, 1996).

Bennett describes these two types of need/right – universal and specific - as culture linked, dependent upon life-cycles, community expectations and values. Yet, Bennett's description of the four transitions of childhood, as used to aid our understanding, still has in its very nature an air of the White Anglo-Saxon Protestant about it. The concerns shown, based upon the 'needs' of children, are defined with regard to welfare and protection rather than with regard to the child as an individual. So how does the UN Convention define what constitutes a child?

5.5 The UN Convention: definition of the 'child'

Article 1 of the UN Convention on the Rights of the Child states that:

For the purposes of the present Convention, a child means every human being under the age of 18 years unless, under the law applicable to the child, majority is attained earlier.

However, the actuality is that ratification of the UN Convention does not in itself guarantee its implementation (for example, see van Bueren, 1991; Ennew & Miljeteig, 1996). Countries can, and in fact have, ratified the Convention subject to certain reservations - Argentina is one such country. Argentina's ratification of the Convention was subject to the following reservation in relation to Article 1. This declares that the said article 'must be interpreted in the sense that the term 'child' includes any human being from the moment of conception' (Grosman, 1996). This gives rise to rights which become 'irrevocable at live birth. Thus, for example, property can be acquired by a child, through a legal representative, *en ventre de sa mère* (in the mother's womb), by gift or inheritance (Grosman, 1996).

5.6 The 'child' with regard to my own research

Despite the actuality that defining what constitutes a 'child' or indeed thereafter 'childhood' may be problematic for some, from the standpoint of my own research, which plans to involve secondary school children in its processes, the answer to the question: What is a child? - is pre-ordained. Maybe not in philosophical terms - I am thinking here particularly of the multi-cultural diversity and the nature of class/social background of many of our schools' pupils, but certainly in practical terms. A child will be a pupil of the particular school and,

therefore, fall into the attendant age category for that type of institution. The majority will consequently have not yet actually embarked upon the transition to 'adulthood' – phased or otherwise, and will in fact also, therefore, fit the definition of the 'child' provided by the Convention.

Having provided a cursory view of the literature, concentrating on the concept of 'child', and having begun to introduce the term 'rights', I would now like to turn briefly to the concept of 'children's rights' itself.

5.7 Children's Rights

The very phrase 'children's rights' has in the past been described as lacking in precision and as 'a slogan in search of definition' (Rodham, 1973). Children's rights is certainly a complex issue, raising concerns of philosophical, moral, and legal complexion, as well as its implications for society. Despite this, the UN Convention on The Rights of the Child is the first attempt at a comprehensive global treaty aimed at the protection and promotion of children's civil, political, economic and cultural rights (van Bueren, 1991).

After having had the opportunity to discuss the concept of 'children's rights' with some of my more learned colleagues, I was led to believe that there has been precious little attention paid to the following types of questions: Do children actually want 'rights'? And if indeed they do: Do they want the kind of responsibilities that having 'rights' may bring? For example, the responsibility for decision-making in areas that may affect the rest of their lives, and the consequences that ensue.

There is certainly some evidence to suggest that some children are enthusiastic about at least the idea of having 'rights'. Although some adults consider international law to be too remote and therefore an ineffective means of contributing to children's everyday lives, this is not the view of many children themselves (van Bueren, 1991). During the drafting of the Convention children were able to address those delegates involved in its making. Children have spoken with great eloquence on issues such as the protection of the rights of indigenous children to enjoy their own culture, language, and religion, and the abolition of the death penalty. In the UK children are also said to be positive about the Convention and the 'concrete impact it could have on their lives' (van Bueren, 1991).

5.8 Children's Voices

The 'voice of the child' is often seen as an elusiveness concept (e.g., McColl & Stevens, 1991). As far as the Children Act 1989 is concerned the 'voice of the child' is said to be couched in woolly terms and, therefore, has inherent difficulties in the contexts of both public and private law (e.g., Parry, 1992). As imparted in the introduction, Article 12 of the United Nations Convention on the Rights of the Child gives children capable of forming their own views the right to express those views freely in all matters affecting them. Children are in no way restricted to the spoken or written word according to the Convention. This is most important as inadequacy in so far as putting an opinion into words does not necessarily equate with an incapacity to form and hold an opinion. In recognition of this under the auspices of Article 13 of the Convention, a child's inability to

verbalize an opinion should not fundamentally prevent the child's opinion being taken into account.

Article 13 states:

The child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child's choice.

By advancing the right to freedom of expression from the perspective of the child, the convention undermines the over-dependence on verbal skills and dexterity by the institutions within the UK, by legitimating other forms of communicative media. However, children may have the right to express their own opinions, and through their own choice of media, but this does not in itself guarantee that they will have any real influence on those who affect their lives. For example, in Denmark - incidentally the ninety-fourth country to ratify the UN Convention - legislation provides that: 'persons under the age of 18 years have no autonomy' (Nielson and Frost, 1996). Although the legislation contains exceptions to this principle, they are exactly that.

Article 13 is of particular importance to my proposed research for it supports the use of communication media other than the spoken or written word. It was my intention to employ an adaptation of Checkland's Soft Systems Methodology (Mode 2) in which an expanded rich picture phase encourages further both divergent and convergent thinking in a multi-level inquiry process, with pictures/photographs (and the emergent use of improvised theatre) being used to

promote divergent thinking, surfacing individual participants' perceptions, aiding personal reflection, and the transference of concepts from one individual to another. The use of metaphor providing a point of departure for a 'rich' conversation, both in terms of adults' and young peoples' experiences. Rich picture formulation, working in stakeholder groups, would synthesize perceptions as a basis for convergence – highlighting key insights (e.g., paradoxes and contradictions). The rich pictures produced by the various stakeholder groups could then be drawn together to form an enriched visual representation of the problem situation that they all face together.

5.9 Summary

There has been comment passed upon the elusiveness of the concept 'voice of the child' (e.g., McColl & Stevens, 1991), and the fact that ratification of the UN Convention does not in itself guarantee its implementation (e.g., Van Bueren, 1991; Ennew & Miljeteig, 1996). As far as the Children Act 1989 is concerned, the 'voice of the child' is said to be couched in woolly terms and, therefore, has inherent difficulties in the contexts of both public and private law (e.g., Parry, 1992). Elsewhere, others have expressed concerns that the multi-agency approach to child protection is in direct conflict with the desire of children for the 'right' to speak freely and confidentially to others about things that concern them (Roche & Briggs, 1990). In the area of social work the views of some young people in residential and foster care have been presented (e.g., Buchanan, 1993). However, this research, and more, concentrates upon the 'voices' of children who come to

be embroiled in the Criminal Justice System, the Divorce Courts, the Welfare System etc. - in other words areas where there exists a legal duty to ascertain the wishes and feelings of the child.

Therefore, I agree, for the most part, with Franklin (1986) who declares that it is right to compare the position of children with those of women or black people, because their history is not dissimilar. A child remains to this day a member of ‘a silent and unrepresented minority’: the practical research was to be designed to go some small way to rectifying this, improving representation for those involved in a facet of life central to their development and transition to adulthood – school.

6 Research Proposal

A research proposal was drawn up with two main factors in mind. Firstly, that the focus of the research should be on young people and, as a secondary consideration, that it should take place within an organizational setting that had been identified as potentially exhibiting characteristics of rule-boundedness, in this case schools – operating as they do under, amongst other rules, a multitude of ‘rules’ engendered outside their sphere of influence. The title of the research proposal as delivered to potential participants was: Voice of the Child: Towards the development of skills for adulthood. The detail of the proposal is now presented below, in its original form beginning with the introduction.

6.1.1 Introduction

The rationale for this proposal is as follows:

- Involvement in decision-making processes that directly affect their day-to-day lives will help young people to develop transferable life skills that will be useful throughout their transition into adulthood and beyond.
- Provided with opportunity and support, young people can participate meaningfully and effectively in designing systems that affect them using their own particular 'expert' knowledge.

Recent research (e.g., HMSO, 1989; Beeforth *et al*, 1990; Winn, 1990; Cohen and Midgley, 1994; Gregory, Romm, and Walsh, 1994; Midgley, Munlo and Brown, 1997) has shown that groups of 'ordinary' people (including relatively vulnerable people) can participate meaningfully in debate and decision-making activities given the right circumstances.

6.1.2 Background

The UN Convention on the Rights of the Child affords children capable of forming their own views the right to express them freely in *all matters* affecting them. Young people aged 13 to 19 are generally held to be capable of forming such views, yet are rarely afforded opportunities to express these in informed decision-making.

The Children Act 1989 transformed the law affecting children's welfare in Britain. It clearly sets out a *duty* to ascertain the wishes and feelings of the child when decisions affecting him/her are made. Whether the intent of both the

Convention and the Act should be interpreted strongly (as decision-making responsibility) or weakly (as a need to consult with the child) is a debatable point. Evidence (e.g., Van Bueren, 1991; Ennew & Miljeteig, 1996) suggests that weaker interpretations are most common, with ratification not necessarily guaranteeing implementation as intended. McColl and Stevens (1991) suggest a further complexion: the entire notion of the 'voice of the child' is illusive. In the Act itself, the 'voice of the child' is couched in woolly terms (Parry, 1992) leading to inherent difficulties in both public and private law contexts. Concerns have been expressed that the multi-agency approach to child protection is in direct conflict with children's desire for the right to speak confidentially about things that concern them (Roche & Briggs, 1990). Whilst research to capture the views of young people in residential and foster care has been conducted (Buchanan, 1993), it is unclear whether these expressed views have been acted upon. When coupled with the tendency for adults to consider the next generation as a retrograde step for society (commonly called 'adulthood'), the result is that young people's ability to accept responsibility and their potential for making informed decisions is both underestimated and undermined: their voices are regarded as immature and irrelevant.

If the (strongly interpreted) intent of the Convention and the Act is to provide young people with decision-making power, then efforts need to be made to develop the necessary skills in them. We propose to investigate how the spirit of the two documents is implemented in an area which represents a universally accessible arena for affecting the process of transition from childhood to adulthood.

The case of Sarah Briggs, expelled from Queen Elizabeth's School in Mansfield (Notts.) after writing to a local newspaper criticising her teachers highlights what can transpire when young people, capable of forming their own views, express what are considered to be 'dissenting' opinions within current systems. The development of a participative framework for schools to improve young people's participation and provide opportunities for their voices to be heard, and acted upon, will help minimise the likelihood of such an occurrence in the future.

We propose to investigate how (if at all) young people's voices are used to inform policy making in secondary schools. This will involve the development of a picture of the current situation, and the role young people play in their schools' decision-making processes. New developments can then be planned. A three-stage research process will be employed: data collection; planning workshops; and an evaluation. We anticipate that the young people involved will benefit by developing life skills that will be of value to them in their transition from childhood to adulthood.

6.1.3 Aims

A reflexive *Action Research* approach will be adopted. Our approach to intervention is designed to expose the participants' main concerns about the problem situation that they face together, and to ensure that those concerns are addressed using appropriate methodologies. Consequently the project's participants will develop the specific objectives of the project. Our generic aims are to:

- Evaluate a process for capturing the views/perspectives of young people.
- Evaluate the potential for developing young people's life skills through involvement in their school's decision-making.
- Provide an informed and holistic understanding of the implications of listening to young people's voices.
- Build a picture of how young people's voices are used in the development of schools and to provide an understanding of their potential role in their school's decision-making.

6.1.4 Relevance

For some young people, particularly those of lower ability (measured by normal academic standards), secondary school is the last contact that they will have with a mainstream educational establishment. It is both philosophically desirable, and advantageous in pragmatic terms, to develop their decision-making skills, and to provide them with the earliest possible opportunity to experience those responsibilities that ensue, in order that they may enter adult society better equipped to deal with its demands. The likely outcomes of the research process are therefore as follows:

- The development of young people toward a different status in society, as valued participants.
- Demonstrating how people might deal with 'adultism' in professional practice and attitudes that keep young people in the position of passive objects or non-persons.
- The schools concerned will be able to improve their working practices through the research process.
- The process should provide a participative framework that other schools could adopt to improve pupils' participation and provide an opportunity for their voices to be heard, and acted upon.

6.1.5 Methods

All phases of the research will be held in two schools with markedly different attainment records and situated in disparate localities, in order to take into account the possibility that the outcomes are contingent on location specific circumstances. The methods to be employed are described below.

6.1.6 Data collection phase

Tape recorded semi-structured interviews which will be transcribed and analysed will be carried out with adult participants. During this phase, the sample size, and its complexion, will be partially determined by the numbers involved in the schools under investigation. Ideally, we would wish to interview all the teaching staff at each school, and all of the governors. Interviews will include questions aimed at uncovering any other stakeholders who should be interviewed and will typically last 30 - 60 minutes. However, if following initial inquiries it seems likely that numbers will exceed that which is practicable, a random selection will be taken to give several representatives from each stakeholder group.

It will not be possible to undertake individual interviews with the young people involved, due to the necessity for meetings to be observed by an appropriate adult. Consequently, their perspectives will be sought through group discussion and debate which will be recorded and documented in a similar manner to the individual interviews. In this case, the sample will comprise 10-14 groups of 4 or 5 randomly selected young people between the ages of 13 to 19, reflecting a range of backgrounds and abilities. These interview groups will form the young people's stakeholder groups for the second phase.

We aim to uncover perceptions of the stakeholders involved in the policy making process. Metaphors will be used as an essential element of the gathering and analysis of data, thereby enhancing the richness of the information collected. It has been argued that metaphors are central to the way we think about the world around us (Lakoff and Johnson, 1980). We believe that the use of metaphor will significantly aid young people's participation in the research process, and one way in which we will use metaphors is in drawing out similarities between familiar objects, situations, people or events and their experiences of the school system.

The strengths of this approach are:

- A confidential environment (crucial if the outputs are to be meaningful) without the constraints induced by the presence of the group.
- The capture of more subtle nuances, tones, and emphases lost by other methods (e.g., postal questionnaires).

The weaknesses are:

- What you impart to others is not necessarily reflected in what you actually do on a day-to-day basis. More formally, the espoused theory of action which is communicated to others - particularly 'outsiders' - may or may not be compatible with the theory-in-use (Argyris & Schön, 1974).
- The information provided, rich though it may be, presents a series of subjective pictures of the current state of affairs. It is, arguably, not sufficient as a foundation for improvement.

To ameliorate these weaknesses the proposed research will (i) make use of other data sources (e.g. policy documentation and participant observation/shadowing) in order to expose and assess the implications of the extent of any mismatch between what people say they do and what they are observed to do, and (ii) make use of planning workshops that will build on the data collection phase of the research.

6.1.7 Planning workshops

The general purpose of the planning workshops will be to provide an arena involving peer and multi-group discussions to facilitate the exposure of views from one person to another, with a more specific aim of looking at what might constitute the desired properties of an *ideal* school participation/consultation system.

We propose to use an adaptation of *Soft Systems Methodology* (SSM) (Checkland, 1981; Checkland and Scholes, 1990) for this phase of the research. SSM is a tried and tested mode of intervention that furnishes a planning structure around a series of participative workshops. We anticipate that between ten and fourteen workshops will be carried out at each location, during which participants will engage in the following activities:

1. The production of a 'rich picture'. A rich picture is a visual summary of issues, conflicts, and other interesting features represented in a non-linear fashion, depicting the interconnectedness between various facets of the problematic situation.
2. The identification of relevant systems to be designed. From the rich picture a number of themes can be surfaced and captured as a set of diverse 'relevant systems'. Their design will be central to the improvement of the problem situation.
3. The formulation of 'root definitions'. A root definition is basically an idealised view of what a relevant system should be, in a concise well formulated statement, in essence: what is to be done, why is it to be done, who is to do it, who is to benefit (or suffer) from it, and what are the constraints.
4. The production of models of activity systems. Each of the relevant systems is mapped out showing the activities needed to be undertaken in order to fulfil the root definition.
5. The allocation of tasks. Participants enter into a dialogue revolving around issues of who should undertake the activities, how and when. The output of this dialogue is an agenda for practical action.

Two adaptations of Soft Systems Methodology are proposed. The first is an addition to the 'rich picture' stage. We intend to expand this stage to further encourage both divergent and convergent thinking and to help facilitate young people's participation.

Pictures/photographs will be used to promote this, surfacing individual participant's perceptions, aiding personal reflection, and the transference of concepts from one individual to another. The use of metaphor again will provide a point of departure for a 'rich' conversation:

1. Individual work. Individuals will be asked to pick out 1 or 2 pictures/photographs from a given assortment, that capture something important about a key concern or issue relating to their experiences of school participation/consultation systems.
2. Group work. Working in groups of 3, each person in turn will explain their key concern or issue to the group, using the pictures/photographs as reference points.
3. Review. Groups review data from previous stages and look for patterns, themes, paradoxes, contradictions, etc.

Rich picture formulation, working in stakeholder groups, will synthesise perceptions as a basis for convergence – highlighting key insights (e.g., paradoxes and contradictions). The rich pictures produced by the various stakeholder groups will be drawn together to form an enriched visual representation of the problem situation that they all face together.

Stakeholder peer groups will work separately throughout the preliminary stages. This is particularly important in order for young people's voices to be heard, as

they may be uncomfortable expressing what they feel may be perceived as dissenting views in front of, for instance, teachers, and/or parents. Some adults may require a more confidential environment to air their own views with respect to the ‘professionals’ of the school system. Representatives of the various stakeholder groups will come together in later stages to debate and design action plans for improvement.

The second adaptation is the expansion of stage three of Checkland’s SSM. Elaboration of relevant systems will be enhanced by the use of questions aimed at exposing what participants believe the system boundaries ought to be (drawing on the work of Ulrich, 1983). Once Ulrich’s questions have been re-phrased in plain language this offers a practical tool which ‘ordinary citizens’ (young people) can use to challenge professionals’ views in discussions.

This method of planning has a number of strengths:

- It focuses attention on the problem situation.
- It provides a degree of structure that, far from being rigid, is capable of being adapted to the context in which it is employed.
- Taking into account the viewpoints of concerned stakeholders enables the creation of a pool of individuals’ skills and knowledge. This resource can be used to surface more creative and progressive thinking.
- SSM is a well-tested approach adept at providing creative solutions enabling participants to escape ‘traps’ which current thinking has created.
- The use of pictures within SSM allows intricate relationships, and high levels of complexity, to be exhibited in a concise way that would otherwise require very lengthy high quality prose (Garlick and Leonard, 1997).

There is, however, a significant weakness to the method that must be acknowledged:

- The use of ‘idealised’ models is often seen as naïve, having an arguably unrealistic utopian complexion

This weakness is addressed by a comparison of the ‘idealised’ models and ‘reality’, thus highlighting changes that are likely to be required in order that reality might more closely reflect the ‘ideal’. In this particular context ‘ideal’ means the best *possible* practice a school can aim towards. This involves looking at what both pupils and professionals think their schools ‘ought’ to be doing to encourage and facilitate young people’s participation, and it allows the achievement of a number of things:

- A comparison between young people’s and staff views, revealing discrepancies, that can form the basis of discussions with the aim of making recommendations for the future.
- The exploration of a possible shared vision of the future.
- The evaluation of current activities in terms of whether they are steering the situation toward an ideal state of affairs.

It is important to note the potentially therapeutic nature of drawing rich pictures (Garlick and Leonard, 1997; Williams, 1997). This can lead to the pulling in of issues that are not directly linked to the particular object of inquiry, which can be of a highly personal and sensitive complexion. With this in mind, it will be necessary to establish a close working relationship with those who have a responsibility for ‘pastoral’ care within the participating schools.

It is worth stressing that the two phases detailed above are fully iterative, with output from each stage being utilised and reflected upon in later stages and revised where necessary.

6.1.8 Evaluation

We will conduct an evaluation to ascertain the participants' views of the research process and their perceptions of any outcomes of the research. We intend to use a method of assisted completion of questionnaires for those who participated in the planning workshops. Participants will self-report on their individual development during the process as well as making observations about organisational changes that have arisen as a result of the research.

6.1.9 Dissemination

In addition to disseminating research results to academics, the Centre for Systems Studies has an ongoing commitment to disseminate results to practitioners and policy makers as well, and a range of dissemination activities will be undertaken.

The results of the data collection and planning phases, together with the model of planning developed, should be of interest to policy makers and administrators in local authorities, secondary schools and many other agencies. To reach this audience, the Centre for Systems Studies will undertake a nationwide leafleting exercise, and copies of the report will be sent to practitioner publications for review. See Table 5 for the timetable as attached to the research proposal.

The Centre has many links into diverse practitioner networks established through various organisations and publications. It is standard practice that a short summary of each piece of research is modified for particular audiences and published in at least three different places - informing a variety of policy makers and practitioners of the research results, with in-depth information freely available on request.

The academic audience, who will be interested in methodological aspects of the research, can be reached most successfully through publications in refereed journals. It is anticipated that at least two refereed journal papers will result from this research.

6.1.10 Conclusion

Future generations of adults cannot be expected to be capable of informed decision-making, and of accepting responsibility for their subsequent actions, unless they are provided with the opportunity to acquire, and to practice the skills required. For some young people, particularly those of lower ability levels (as measured by traditional academic criteria), secondary school is the last contact that they will have with an educational establishment. It is both philosophically desirable, and advantageous in pragmatic terms, that secondary school children be involved in the decisions that affect them. This belief is reflected in the research by a commitment to explore ways of ensuring that the young people central to the research are involved in and empowered by the experience of decision-making, and an express desire to seek out their voices and perspectives. The research should thus: promote understanding of what can be gained by listening to young

people's voices, improve decision/policy making in secondary schools, and help to develop life skills in young people that will be of value to them in their transition from childhood to adulthood and beyond.

Timetable

Period	Phase	Activities
3 months	Preparation	<ul style="list-style-type: none"> • Finalising contacts • Forming/cementing relationships • Further training in research methods • Preparatory work • Familiarisation with Schools' 'Pastoral' systems • Determining sample
3 months	Data collection	<ul style="list-style-type: none"> • Audio-tape recorded interviews • Group discussions and debates • Participant observation • Review of documentary data • Simultaneous qualitative analysis of data by those involved/affected and the researchers • Reflection
6 months	Planning workshops	<ul style="list-style-type: none"> • Divergent/convergent thinking exercises • Planning workshops – stakeholder groups • Planning workshops – multi-stakeholder group • Simultaneous qualitative analysis of data by those involved/affected and the researchers • Reflection
1 month	Evaluation	<ul style="list-style-type: none"> • Interviewing participants • Completion of questionnaires • Reflection
5 months	Writing up	<ul style="list-style-type: none"> • Preparing reports • Publishing research report • Sending report summaries to practitioner publications for review • Preparing journal papers • Carrying out leafletting exercise • Reflection
Total: 18 months	Completion	<p>Note: Empirical work will take 10 months: the other 8 months are for preparation and dissemination activities</p>

Table 5 – Timetable as attached to the research proposal

7 Project Phase I

7.1 Introduction

Initial approaches were made by letter to all the high schools in the chosen geographical area. This introductory letter contained a brief description of the proposed research along with a request for a meeting to discuss any current initiatives in place and the school's possible participation in the proposed program of research. In all, a total of twenty schools were contacted, fourteen within the city boundaries and six located in the surrounding suburbs. The response rate was poor with only three schools replying directly to the letter. However, things improved with regard to the follow-up calls – calls were considered complete when contact was established with either the Head Teacher or a representative of the school's Senior Management Team – all in all, as a result of the seven successful calls, meetings were arranged with every respective Head Teacher. In time each meeting went ahead, with the exception of one of the suburban schools (S05) where the Deputy Head Teacher represented the school.

As a result of these meetings only two schools wished to participate further in the study, serendipitously one from each of the categories - a 'failing' inner-city school and an 'effective' school located in the suburbs. Interestingly, the Head of the suburban school (S06) stated that he was interested in participating but would require time to consult with his 'staff' prior to making any final decision, whereas the Head of the city school (C04) was unequivocal in his positive answer regarding participation. As a school under Special Measures (having failed to meet the minimum standard at Government Inspection) he saw the research

project as a real opportunity to make a contribution towards the school's progress in executing the agreed plan for improvement. This was in direct contrast to the Heads of the small minority of other city schools who were also in Special Measures. They said that to commit to participate in any program would place an unnecessary and additional strain on their resources, thus interfering with their efforts to move away from Special Measures and their current reputation as a 'failing school'. In their opinion it would have constituted 'a burden too far'. Table 6 is a summary of the communications between myself and the schools. Each school has been listed by category in alphabetical order and then assigned a code number to maintain anonymity.

	Initial Contact Letter	Reply	Telephone Contact Made	Meetings	Wished to Participate
City Schools					
C01	✓	✗	✓	✓	✗
C02	✓	✗	✗	✗	✗
C03	✓	✗	✗	✗	✗
C04	✓	✗	✓	✓	✓
C05	✓	✗	✓	✓	✗
C06	✓	✗	✗	✗	✗
C07	✓	✓	✗	✗	✗
C08	✓	✓	✗	✗	✗
C09	✓	✗	✗	✗	✗
C10	✓	✗	✗	✗	✗
C11	✓	✗	✗	✗	✗
C12	✓	✗	✓	✓	✗
C13	✓	✗	✗	✗	✗
C14	✓	✗	✓	✓	✗
Suburban Schools					
S01	✓	✗	✗	✗	✗
S02	✓	✗	✗	✗	✗
S03	✓	✗	✗	✗	✗
S04	✓	✗	✗	✗	✗
S05	✓	✗	✓	✓	✗
S06	✓	✓	✓	✓	✓

Table 6 - Summary of Schools Contacted

7.2 Data collection

At this early stage data collection took the form of questioning in response to issues of concern emerging from the meetings. I will now summarize some of the data collected beginning with the interview that took place between myself and the Head Teacher at School C12, unique in this study as it was the only Roman Catholic School, after a short discussion of the proposed research and the mechanisms that the Head, as a representative of the school, felt they school already had in place. The Head expressed the following views when asked about the inclusion of students in school policy making processes. He was quite emphatic in his stance that students regularly participate in the forward thinking, progressive nature of the school's policy making processes. Indeed, the following are indicative of his responses to the points raised regarding student participation:

...we do that anyway

...we are constantly developing it ourselves

When asked to provide supporting evidence for these statements the Head cited two very particular educational programs. Firstly, the schools program for sex education, said to be developed with the participation of the students themselves. He stated that the program had been such a success that it was being investigated as a possible model for sex education in other schools, initially within the Local Education Authority area, and then possibly nation wide. When questions were raised regarding the wider suitability of a program that excluded contraception from the sex education curriculum, the Head would not enter into discussion on the subject. I found it hard to accept the Head's assessment of the success of the

school's sex education program, at least in terms of my interpretations of what it is that such a program should be trying to achieve, especially given the lack of information provision about contraception and in the light of anecdotal evidence regarding the number of students who were currently with child. The Head was also particularly proud of the school's achievements in the area of Drugs Education, having initiated a program, to which the students contributed, three years before it was a 'requirement'.

Following on from this lead, it was put to the Head that participating in the research would provide an opportunity to further enhance the school's participatory processes for the students, and to provide an example for other schools to follow. This elicited the same kind of responses as earlier plus the following statement, which I feel is unusual given the Head's insistence on the effectiveness of the schools extant participatory processes:

There is a finite amount of enthusiasm for participation, and ours is all maxed out ... staff, pupils, parents and governors

And with that the meeting was concluded.

This next section is an outline of some of the concerns raised by the City Schools using the interview with the Head of C01 as an illustrative case. As a currently 'failing school', the school was under a great deal of pressure to realise the recovery plan agreed with the DFEE and teachers and staff were already heavily committed to its achievement. The Head reported having had good results from his experience with student participation in the recent past, most noticeably

centred upon the new policy regarding school uniform. He was particularly interested in why the students had specifically requested that the new uniform standards should include the wearing of a tie. Upon investigation it was discovered that they (the students) wanted to be perceived as being more like those from a prominent local private school of some repute. He was quite clear that the school's present ethos regarding student participation was one of 'consultation' rather than 'decision making' with regard to school policy. However, the school councils would have limited decision making responsibility over certain social aspects of school life. I believe that it was previous experience of participation in another 'action research' project – demanding too much in terms of time and effort - which ultimately led to his decision not to proceed any further.

7.3 Interviews

Saunders *et al* (provide what they describe as three overlapping typologies of types of interview, based upon the notion that, on the one hand interviews may be highly formal in their nature, with a set of standard questions asked of each interviewee, while on the other hand they may be informal with very little or no structure at all. Somewhere in-between, there exists the possibility for an intermediate position.

The first typology categorizes interviews by their relationship to the issues of the level of formality and structure, as one of:

- structured interviews
- semi-structured interviews
- unstructured interviews

(Saunders, *et al*, 2000)

Secondly, a typology which draws the distinction between, this time:

- standardised interviews
- non-standardised interviews

(Healy, 1991; Healy and Rawlinson, 1993; Healy and Rawlinson, 1994)

Third, and lastly, a different typology provided by Robson (1993), based on the earlier work of Powney and Watts (1987):

- respondent interviews
- informant interviews

According to Saunders *et al* (2000), reflection on each of these typologies informs our understanding of the nature of research interviews.

7.3.1 Structured Interviews

Structured interviews are in essence the assisted completion of questionnaires, using a pre-determined, standardized, or identical set of questions with little real social interaction beyond that of explanation of purpose etc. Such formal interviews have been dubbed ‘respondent interviews’ – with the interviewer directing the proceedings and the interviewee responding to the questions posed by the researcher (Easterby-Smith *et al*, 1991; Ghauri, *et al*, 1995).

7.3.2 Semi-structured Interviews

In contrast, semi-structured and unstructured interviews are non-standardised. Typically, the interviewer will be guided by a list of themes, issues, or questions to be explored. In some interviews it may be pertinent to omit particular questions, based upon the specific context and/or to vary their order to take

account of the flow of conversation. Further, the need for supplementary questions may arise in response to issues generated by earlier answers. This type of interview necessitates the generation of a contemporaneous record of events in order to capture the richness of the information gathered. This record can be in the form of note taking or by means of audio or video recording. This need for an accurate record of proceedings is all the more pressing in the case of unstructured interviews.

7.3.3 Unstructured Interviews

An unstructured interview, sometimes referred to as a an *in-depth interview* is informal by its very nature and should be employed as a means of exploring a general topic of interest, as the name suggests, in depth. Unlike the semi-structured interview there is no agenda of preset questions. Instead, the interviewee should be given free reign to express their perspective on ‘events, behaviour, and beliefs’ (Saunders *et al*, 2000) centred around a clearly defined aspect of the reality you wish to explore. Therefore, with the interviewee’s perception of the situation providing guidance for the interview, the kind of interaction that takes place between the interviewer and interviewee can be referred to as *non-directive*. Taken together, these facets have provided this kind of informal, non-directive interview with the label of an *informant interview*.

7.3.4 Group Interviews

Saunders *et al* (2000) also differentiate between types of interview founded on the mode of interaction between the researcher and those participating in the interview process – one-to-one and one-to-many. Firstly, face to face interviews

carried out on a one-to-one basis, between a researcher and a single participant. Secondly, on a one-to-many or group basis, a meeting with a small number of participants at which the researcher is likely to act as the facilitator for a group discussion around a particular aspect of the research. By its very nature, an interview taking place in a one-to-many situation is likely to be of the semi-structured or in-depth variety.

The above is a brief description of the ‘ideal types’ with regard to interviews, so: How do we link these types to the purpose of the research and the research strategy itself?

7.3.5 Linking Interviews and Research

It should be noted that structured or standardized, semi-structured and in-depth, or non-standardized interviews, all have different purposes. The type of interview employed needed to tie in with the overall ethos of a co-researcher relationship. So, the use of pre-determined structured questioning would have been wholly inappropriate as this would have undermined the process, and would not have solicited the richness of data sought. Therefore, the interviews might best be described as semi-structured, non-directive, informant interviews offering the participants the opportunity to speak freely in order to find out what was happening and to generate new insights.

Of course there is an anomaly here, created by not using non-directive interviewing under a PAR approach. Semi-structured interviews were used instead because the ‘topic/focus’ was already in place – due to the peculiarities of the research being

born from an existing research proposal and the need to satisfy the requirements of the PhD. Group interviews were also carried out with students representing those involved and affected by the student council systems established at both the participating schools.

7.4 Observation

As a part of an earlier encounter with one of the senior members of staff at the sub-urban school, I was invited to observe one of the school councils in action, especially year seven. I immediately saw a difference between this set of arrangements and the year councils at the city school – this council (as were all the others) was to be held in the student's own time, during lunch break, unlike the city school where it was reported that councils had to sit in 'school time' in order to facilitate participation. The general air of the meeting was a formal one, despite the fact that almost everyone brought lunch to the table. The meeting was held in a classroom with the tables arranged so as to imitate a boardroom style, with the 'teachers' together at the head of the table. Those present were, the Head of year (acting as chairperson) and the Head of Lower school, the students numbered seventeen (eight girls and nine boys) – with two tutor groups unrepresented at this particular meeting.

There were essentially two items on the days agenda, first, the year trip to Lightwater Valley and, secondly the 'development' of the existing Student Planner – essentially a *filofax* style personal organizer. Item one, the Lightwater Valley trip was basically an information dissemination activity. So, it was the student planner that was to occupy the bulk of the meeting. The chair gave a short explanation of the background to the adoption of the student planner, its current

standing, and the view that there was undoubtedly room for further improvement both in terms of its design and its use in practice. The chair then called for ideas from the students on a page by page basis.

It seemed clear to me that the chair was in complete control of the meeting. As each idea was offered it was the chair who decided at best ‘that’s a good idea, isn’t it?’, or at worst ‘that’s not such a good idea, is it? – with no one voicing any disagreement. The meeting was closed by the chair with a simple statement: ‘thank you’. See Table 7 for a summary of issues addressed.

7.5 Metaphors used to describe current situation in the Failing School

7.5.1 The Lone Ranger Metaphor

This metaphor was employed to summarize the role of the Head Teacher who was specifically drafted in to affect the schools extrication from Special Measures. He is the all action hero riding into town to save the situation. As the Lone Ranger he believes that it is he who must supply the silver bullets, he has got to come up with all the ideas – ‘it’s certainly top down’. This was seen as a positive metaphor under the prevailing circumstances of the time and place. Strong leadership was required to implement the agenda for improvement agreed with the DFEE, and the authority to turn the school around and provide the direction necessary to achieve the targets that had to be met to remove the school from Special Measures. However, there was a suggestion by the particular participant that once this immediate hurdle has been cleared that a different wider approach will be needed to carry forward the momentum generated by the original boost to the second post Special Measures phase.

Idea	Suggested by	Comment	Notes
dark covers to avoid graffiti	Students	good idea	supplementary idea of 'wipeable' covers dismissed by the chair as a non-starter on financial grounds
emergency contact numbers	Students	good idea	not properly explored –e.g., emergency numbers for the children/parents to call school or for the school to call parents or both
extra timetable pages to take account of changes	Students	good idea	
bright colours for important pages	Students	good idea	immediately dismissed by the chair as too expensive
rules and policy pages to be signed as read and understood by pupil, teacher, and parent	Chair	good idea	this was intended to form the basis of a contract
more notes pages	Students	good idea	
reading record	Chair	good idea	
subject oriented record pages	Students	not good idea	key skills needed to be recorded across subjects
termly target pages	Students	good idea	
separate stickers page	Students	good idea	
smaller stickers	Head of Year	good idea	
subject stickers	Students	good idea	students expressed concern that some teachers give stickers for achievement, it should be for effort – chair indicated that teachers would be 'educated'
10 stickers for one subject should equal a certificate	Students	good idea	
complaint about having to bring all PE kit when only specific things are needed	Students	Dismissed	very quickly dismissed by the chair as an unsuitable topic for discussion, suggesting complaints should be made to PE teacher
reminders printed at the end of the month to ensure rules & policy are read regularly	Students	good idea	

Table 7 - Summary of issues addressed Year 7 student council

7.5.2 The Animal Farm Metaphor

This metaphor describes the politics of policy making in the school and in the education system in general. In theory, Animal Farm was a democratic situation but, in actuality, it was very autocratic. Although there may be opportunities to chip away at the edges and give opinions, these are limited and, in actual fact decisions are made at a higher level. As a result of the participants' education and upbringing this was definitely seen as a negative image. For this participant, a lot of the rights in decision making, the freedom to make judgements based on local knowledge, had been eroded. Previously, there had been opportunities to have a real input into any particular school. Each school was very much on its own, making its own decisions and to some extent creating its own type of education, tied into the type of students attending and the type of situation they were in. A fair degree of flexibility existed then which does not exist anymore. Everyone is now judged by the national norm. The particular characteristics of the situation are not allowed to be taken into account.

7.5.3 The Champagne Tower Metaphor

Under the imagery of this metaphor we can see the classic triangular shape of the hierarchical organization structure. And in some ways, this metaphor reflects certain aspects identified in *The Lone Ranger*. Champagne glasses are arranged to form the tower, wide at its base and with a single glass at its top. The flowing of the champagne represents the flow of ideas. The Head pours the champagne/idea into the glass atop the tower. It is bubbly and full of sparkle/enthusiasm. However, as the champagne begins to work its way down the tower filling the

glasses of each tier below, it begins lose some of its effervescence. So, by the time it reaches the base it has gone flat.

7.5.4 The Light at the End of the Tunnel Metaphor

This particular metaphor was used to explain the policy/decision making process of the school from the perspective of a member of the Board of Governors. The Governors are constantly looking towards the Senior Management Team (Head, Deputy Heads and Senior Teachers) to provide the light at the end of the tunnel. The situation resembles that of a tunnel because those involved in the policy/decision making process face restrictions in the direction they can take. The Governors place a heavy reliance upon the ‘professionals’, coupled with the fact that there is no consultation with the Governors prior to ‘issues’ being presented to them - however, some unsolicited suggestions by the Governors have been taken on board by the Senior Management Team. As far as the Senior Management Team is concerned they too have restrictions placed upon them as they have to satisfy the conditions of the rescue plan approved by the DFEE and, as far as the educational content is concerned, the National Curriculum. Once the light has been identified it is then a case of ‘driving’ people towards it. The particular Governor who employed this metaphor felt that this was a positive image, that despite the difficulties of their current predicament they were still able to ‘see the light’.

7.6 Rich Picture

Based on the interviews with the key individuals involved, and their metaphorical descriptions of the policy/decision making processes at their particular school, the problem situation can itself be represented in the form of the rich picture approach

of Checkland (1981) - see Figure 10. The reason for the adoption of this pictorial approach is that human affairs exhibit an abundant shifting exposition of relationships, and pictures are an excellent medium for recording relationships and connexions, unlike linear prose (Checkland & Scholes, 1990). A rich picture is in fact an 'appreciation' of the problem situation rather than a diagram, with the real benefit lying not in the picture in itself, but in the process behind its creation (Darzentas *et al*, 1994). Further, rich pictures 'represent the situation of concern and include elements which influence the problem, but which would not perhaps be picked up by more formal methods' (Darzentas *et al*, 1994). Rich pictures also have a part to play in succinctly conveying a description of the situation in focus to interested third parties (Lewis, 1992). This first rich picture is based on the subjective impressions formed as a result of the initial interviews, and informal conversations and observations.

7.7 Issues identified

From the rich picture, and in conjunction with previously gathered material, a number of specific issues emerged reflecting the concerns of those engaged in the project. Three main issues were identified, and these I have termed: 'isms' and 'ists', 'garbage' in = 'garbage out', and 'educate' or 'equip'. Together, these issues begin to uncover some of the underlying currents against which the school is struggling and, as far as the participants are concerned, is being unfairly judged in the process. So, to the first of these issues: 'isms' and 'ists'.

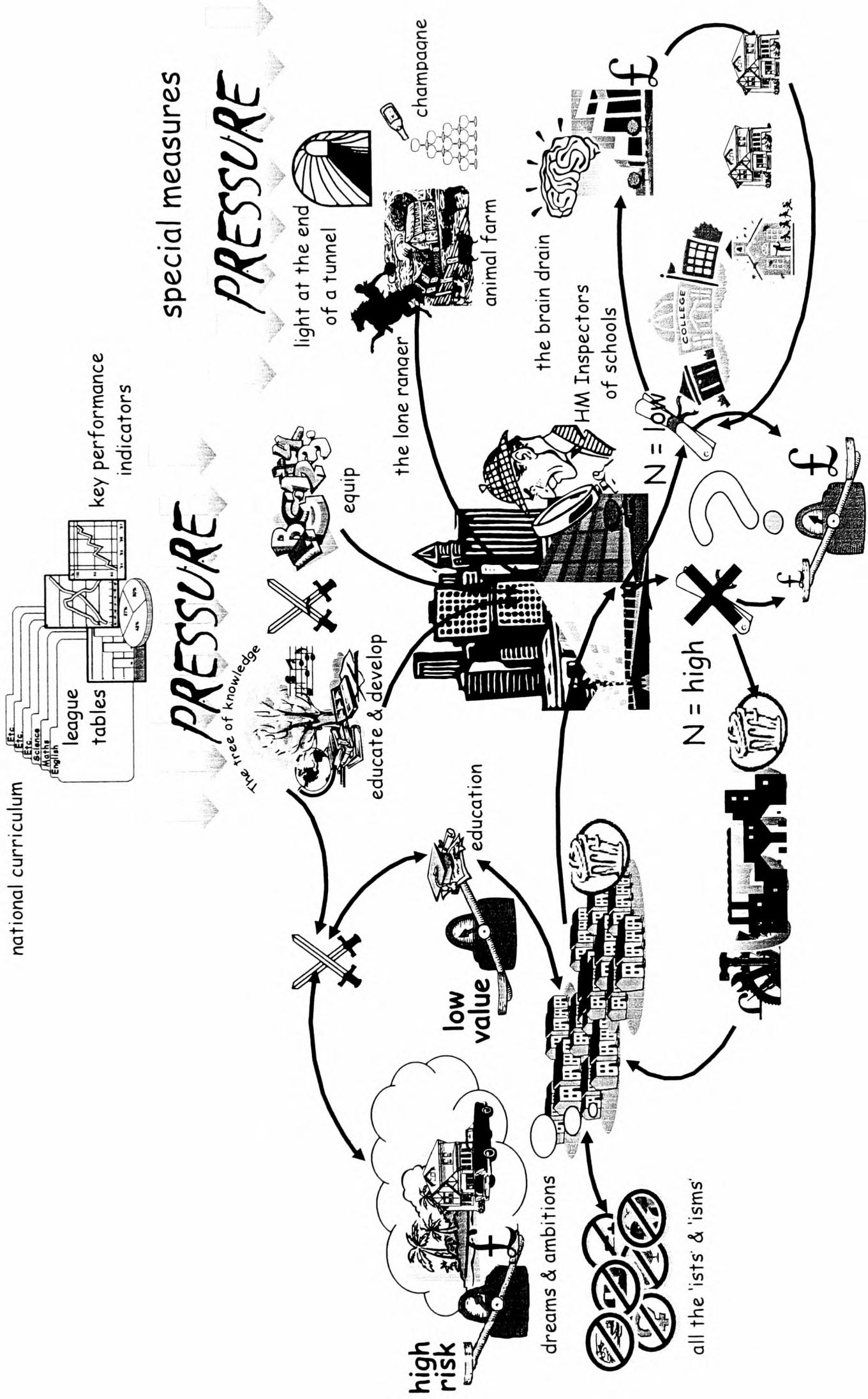


Figure 10 - Rich Picture Inner City School

7.7.1 'isms' and 'ists'

One participant in particular described how he was 'staggered' by the levels of bigotry, narrow-mindedness, and intolerance displayed by the students and parents involved with the school:

...they've got all the 'isms' and 'ists', you know they are very racist, they are very sexist, they are very ageist, and you know we've got a lot of work to do in that area of raising the level of tolerance.'

Those 'isms' and 'ists' reported include, though are not necessarily restricted to, issues of gender, sexual orientation, age, colour, race and religion. To some extent this reading of the situation was reflected later during the workshops with the students. In particular those representing Year 9 who stated quite categorically that one of the issues about which they should be consulted was exactly 'who comes here'. Our Year 10 participants were perhaps even more vociferous in their assertion that they should be asked about 'people who attend the school', stating emphatically that we should 'get rid of the 'divvies''. Even the Year 7 students displayed similar tendencies, one of their 'things to be asked about' was 'who goes into *our* area'. These points will be revisited in the discussion of the workshops held during phase II of the project.

7.7.2 'Garbage IN = Garbage OUT'

Several participants alluded to this scenario and one key informant was quite explicit about the situation he believed was faced by this, and other, inner city schools. That is the 'reality' of the Garbage IN = Garbage OUT formula. Most importantly this was not intended as a personal attack upon the pupils as

individuals, nor a reflection of their true abilities or potential. It is more a reflection of the general malaise brought about by the historical, social, and economic context of the area. The employment situation is difficult for people living in the area surrounding the school. There is a certain air of distrust of the 'establishment' and many individuals suffer from low self-esteem. Their hopes and aspirations have been successively dashed over the last twenty five years or so. A coping strategy has been developed through which individuals have stopped looking up and no longer raise their expectations beyond what they consider to be the 'real world'. For, as a lot of them know from bitter experience, 'it's a long way to fall'. In general the value of education has been undermined and it is no longer considered worthwhile. Some do pay lip service to it, and undoubtedly some really do place a very high value on education. But, for the participants, by and large education is not seen as something that will make a big difference to the majority of peoples' lives.

Those who place little or no value on education have little chance of academic success. This tends to constrain them in terms of job opportunities, earning potential and choice when it comes to where they live. Thus, many remain in the immediate vicinity or move to other comparable areas of the city. Those who work hard and gain academic recognition for their efforts, quite understandably wish to improve their lifestyle. This means that they move away from the inner-city environment to the suburbs, or to another part of the country in search of better jobs, better money, and better living conditions. This phenomenon has been referred to as the 'Brain Drain'. What we are talking about here is a vicious circle. Successive generations who remain in the inner-city are likely to place less

and less store on the value of education, whilst those who do value education are lost forever as their children are shipped out of the area to 'better' schools.

This suggests two further issues. One, that inner-city schools are unfairly judged by comparison with national averages as they are not starting on a level playing field, as intimated from the description of the Animal Farm Metaphor. Two, the question of what the role of an inner-city school should actually be is raised.

7.7.3 'Educate' or 'Equip'?

This was a question that several of the participants believed should be asked. Quite simply, given the particular circumstances of the school and its surrounding area, should the school even be trying to develop the academic achievements of its students? Some seemed to be articulating a genuine sense of cognitive dissonance, that by continuing concentrate on academic achievements they were somehow colluding in the raising of false hopes and expectations among their students. And, that instead of doing them this disservice, they should instead be looking towards equipping them with the skills they need for the actual world that lay ahead of them.

7.8 Emergent themes

All in all three themes were identified surrounding the use of 'top down' policy/decision making in the school, an autocratic management style, and the nature of participation and consultation.

7.8.1 Top down policy/decision making

All those interviewed, including those who could not generate a suitable metaphor to describe the policy/decision making environment of the school, all alluded to, or described explicitly, a top down hierarchical system. This is perhaps at its most obvious through the metaphorical description of the 'Champagne Tower', in its very nature resembling a classical hierarchical structure. Somewhat less obvious may be the 'Light at the end of a Tunnel'. This metaphor still illustrates the 'policies' emanating from the top down. 'Ideas' are generated, bounded and latterly presented by the Senior Management Team/Head to the Board of Governors who, acting on advice and 'information received', ratify the decision of their advisors. This could be interpreted as an example of the Board's true nature as only a quasi-substantive entity.

7.8.2 Autocratic management style

It was suggested that the Head Teacher had been brought in because of his strong personality and leadership style, and his reputation of being the man to get things done.

7.8.3 Participation and Consultation

Lip service had been paid to participation and consultation processes at the beginning of the Head's period of leadership. However, participants reported quite simply that it was made abundantly clear that the Head's decision was final and that policies on 'key' issues were determined before any consultation process began. But, almost without exception, participants believed this approach to be 'right for the times' as long as the school faced special measures.

7.8.4 Summary

Notwithstanding the above, however the hard times have all but passed over and now it is felt that an alternative approach is necessary to move the school forward

7.9 Metaphors used to describe the current situation in the Successful School

7.9.1 The Pushing Paint Up Hill Metaphor

This metaphorical description sees the situation as like ‘pushing paint up hill’, a little progress forward and it slips back down again. Concentrating on one area leaves another to continue sliding back down. Even when you are having a positive affect some of the paint slips around your fingers and returns to its downward slide. With such a big school, so many people are pushing their own paint (not necessarily in the same direction) that it becomes very difficult to coordinate their efforts and keep it all going up hill at once. This was not seen as a totally negative metaphor, more a reflection of a diversity of efforts all ultimately aimed at the same thing, even if this doesn’t always appear to be the case superficially. It just makes it hard work.

7.9.2 The Holiday Brochure Metaphor

This was a topical reference as the holiday season was fast approaching. The participant described the policy/decision making process in school as like being given holiday brochures to choose from when basically you know that all the holidays are booked except one. The school does its best to consult, but running the school is a ‘nightmare’. It is a multi-million pound business and it is very difficult. In order to respond to rapid changes in education and to cope with cuts in the schools’ budget someone has had to ‘take control’. There was a strong belief that the decision makers would like to listen more to those affected by the process, but it is difficult as teachers are by nature whingers. The process should

be developed to engage people who want to make a positive contribution to policies.

7.9.3 The Sea Metaphor

The tide is the process which brings in the ideas, the flotsam and jetsam. Some get left on the beach and are adopted. Others get swept back to sea with the outgoing tide. Over time different things come in and go out with the tide maintaining a forever changing agenda with different responses each time. This was related by the particular participant concerned as neither a positive nor a negative image, simply 'that's how life is'.

7.9.4 The Team Metaphor

This metaphor describes one of the school councils. As a team effort each member is expected to look out for each other, and to support one another in their role as the 'voice of the students'. It was readily acknowledged that like any team it needs its 'star strikers' - key individuals that make things happen. But by the same score, there is no room for eleven Maradonas, and solid support from the rest of the team is what is required. This was described by the participant as a very positive image.

7.9.5 The Mushroom Metaphor

The mushroom was chosen as a metaphor by one participant for the relevance of its shape. The cap of the mushroom is the discussion which takes place, and there is a lot of it. This tends then to funnel down and so forms the stalk. The participant believed that there is a lot of openness which can be represented by the

gills which radiate under the cap of the mushroom. This account was in direct contrast to the participant's earlier experiences of the school, where the motions of consultation were observed but were you were actually wasting time as it was felt that all that was missing from any new policy document was the date which would be added once the 'consultation' process had run its due and proper course. The current situation was obviously, as far as this participant was concerned, a much improved prospect for informed policy/decision making. Thus, the mushroom metaphor was definitely a positive one.

7.10 Rich Picture

Based on the interviews with the key individuals involved, and their metaphorical descriptions of the policy/decision making processes at their particular school, the problem situation can be represented in the form of the rich picture approach of Checkland (1981) - see Figure 11.

7.11 Issues identified

As with the other school there was a sense that the policy/decision making process is a product of the need to respond to the current climate. However, there was one particular issue that seemed to dominate – the issue concerning the school's application for Language School Status.

7.12 Commonalities

Both the schools that took part had experienced dark times over recent years. The failing school in terms of its academic performance and subsequent placement in Special Measures, and the better school which had until recently been in dire straits over its finances after mounting up huge debts. In both instances new Head Teachers with ‘strong personalities’ and ‘leadership’ skills had been brought in to ‘take control’ and ‘solve’ the respective problematic situations. As one participant expressed it, he felt that those ‘in charge’ had adopted this approach as a direct backlash to the kind of left wing, Guardian reading, ‘let’s form a committee’ woolly kind of thinking which they considered to be the route of the current problems. In both cases the majority seemed decided that the introduction of strong leadership and a real sense of direction had been an approach wholly appropriate to the times. However, it felt like there was a growing unease as to the appropriateness of such a strategy for the continued development of the schools, suggesting that a broader more holistic approach may be now be necessary.

8 Project Phase II

8.1 Introduction

A series of workshops were held on the respective school premises involving participants representing each of the year groups, Years 7 to 10 at the city school and Years 7 to 12 at the suburban school. The workshops were facilitated by myself supported alternately by Wendy Gregory and Mandy Brown from the Centre for Systems Studies at the University of Hull.

8.2 Facilitation style

During initial discussions with a member of the senior management team from the city school, I was given the following warnings in relation to the planned facilitation style for the exploratory workshops, firstly that:

If you don't fit the kids perception of what a *teacher* should be they will tear you to shreds

(emphasis added)

and secondly that,

You cannot hold a kid's attention on the job at hand for a whole morning

Though I appreciated the well intentioned feedback, I felt, from my own perspective, that it was somewhat misguided. However, if true, then the whole process would have to be reviewed in order to take account of these issues (in particularly the first). Therefore, a great deal of thought was given to whether or not the workshops should proceed as planned.

I began by trying to think back to my days at senior school. As I remembered, I was always complaining about not being treated 'as an adult', instead having my status as a child continually reinforced by teachers. Further, the intention of the workshops was not to 'teach' but to allow the participants to take part in a process that would surface, and then provide a voice for, their own opinions, views and perspectives - on their relationships with the policy making processes in particular, and the school in general. Standing before them as a 'teacher' would be a perpetuation of the 'establishment', precisely the situation that needed to be suspended in order to provide for an environment in which the students felt comfortable in expressing potentially dissenting viewpoints. This feeling was later reinforced when we (the facilitators) were referred to by the students as 'independent people' from the university.

As for the second point, regarding holding the attention of the students, I felt that again, although this was a potential pitfall, it would not be too problematical. The workshops were designed with a number of different activities with short breaks built in to the program. In addition, I felt that one important factor had been missed by the member of the management team. That was, simply, that we were asking the students to talk about some of their favorite subjects - as I had remembered them - i.e., themselves and their relationship with 'the establishment'.

After some reflection and discussion with colleagues and participants, the workshops went ahead as planned, and for the most part passed off without event. There was only one group of participants representing Year 8 at the city school

who's behavior proved problematical. The situation was retrieved by requesting that the students prepared a short play in order to communicate how they thought the interactions between 'teachers' and 'students' should take place. As luck would have it, the most disruptive portion of the group produced the most interesting, and coincidentally probably the most sophisticated, representation of how they felt the two parties should behave towards each other. Nevertheless, the situation could quite easily have deteriorated to the point where to proceed would no longer have been viable - a point to which I shall return during the 'reflections' section.

8.3 Workshops

At the beginning of each workshop participants were asked to agree to a set of simple 'rules of participation' as follows:

- There are no right or wrong answers or ways of looking at things, only different answers and different ways.
- You should not argue or contradict others
- You should not assume that others see what you see
- You should not interrupt others
- You should respect each other's intelligence and imagination
- You should not judge the views or ideas of others as stupid or impractical
- You must respect each other's right to privacy

8.4 Saga cards

The first activity of the workshops was designed to draw out the student's perspectives on aspects of their experiences of school. Picture cards were randomly displayed on a table and the participants were asked to select a picture that said something to them, and about which they were prepared to talk to the group about. The picture cards used are part of a series called Oh Cards – See Appendix II for the images used in the workshops.

The artist Ely Raman was the creator/initiator of the associative Oh Card genre. During his time as a teacher of art at Rutgers University in New Jersey, Raman developed a form of expression which he himself termed 'variable structures'. By 1975, this theme, combined with his passion for playing cards effectively laid down the foundations for Oh:

A deck of card-sized pictures which Ely had painted became suddenly potentiated by the stroke of genius that led him to create word cards, exchangeable frames which turned his deck of images into the veritable 'variable structure' he had conceived of, a form capable of constant change.

(Oh-cards, 2002)

Saga cards are one of the series of Oh cards – designed to stimulate creativity and promote communication. The publishers describe the series as: 'A colorful springboard lending wings to imagination...' (Oh-cards, 2002) - used alone as solitaire, or together in couples, families or groups. Each individual deck is designed to be used on its own or in combination with any (or all) the others 'like

building blocks for creativity'. Thousands of combinations are possible and the potential for infinite interpretations is created.

However, their uses are by no means restricted to play. They are not just simply a game. They are also used as a serious tool used across a broad spectrum of environments with both children and adults, for example in schools, clinics, and corporate training. According to the publisher's website:

[The]...cards are designed to increase intuition, imagination, insight and communication. Around the world people are using these unique cards to reclaim their sense of self and their sense of place in this universe.

(Oh-cards, 2002)

The OH Cards are a wondrously useful, intuitive tool to access the forces that lie behind an event or question.

(Joy: Oh-cards, 2002)

...OH has proved to be the best personal tool for self-development that I know of.

(Gregory: Oh-cards, 2002)

...you can use the OH Cards to explore your deepest secrets and the joy that comes with understanding.

(Biziou: Oh-cards, 2002)

Under the theme of emergency psycho-social intervention, Ayalon writes:

Our work included debriefing of the participants as 'near miss' survivors, sharing our knowledge on the effects of trauma and loss on

children, family, and community, training in creative verbal and non-verbal methods of communicating with traumatized children (including our therapeutic cards of course).

We used the cards among other methods also to help in planning field-work in devastated communities.

(Ayalon: Oh-cards, 2002)

Each participant then described to the group what it was that influenced their choice of image, the aspect of school life which to them it represented, and their view on the issues it raised for them. A conscious attempt was made to employ the ‘interpersonal function’ of metaphor as a means of ‘fostering intimacy’ amongst the participants (Allbritton, 1995; Cohen, 1979; Gibbs and Gerrig, 1989), and to highlight any common ground between them as participants in a conversation. A bi-product of this was to draw to the attention of some participants the multiplicity of views held by others.

The metaphors generated from the exercise using the Saga Cards have been categorized under ten themes, and are presented in Appendix III

- Education style
- Relationships with adults
- Organizational/environment rules
- Organizational image
- Physical environment
- Personal orientation
- Relationships with peers
- Social/leisure environment
- School facilities
- School decision making

8.5 Question format

The second activity after the metaphors exercise focused on two main issues surrounding interactions with the schools policy making functions:

- What should we be asked about?
- What shouldn't we be asked about?

The style of questioning was straightforward, based on the importance of 'questioning, questioning and questioning again to promote everyday thinking' (Flood, 1995), and the 'six honest men' – What, Why, When, How, Where and Who (Kipling, 1902). We followed the model in Figure 12. The use of this questioning technique was an iterative process as illustrated by the recycle sign.

Ideas, themes, notions etc. generated by the participants were contemporaneously recorded on Flip Chart paper and displayed consecutively on the walls of the room – Appendix IV contains sterilized versions of the sheets generated.

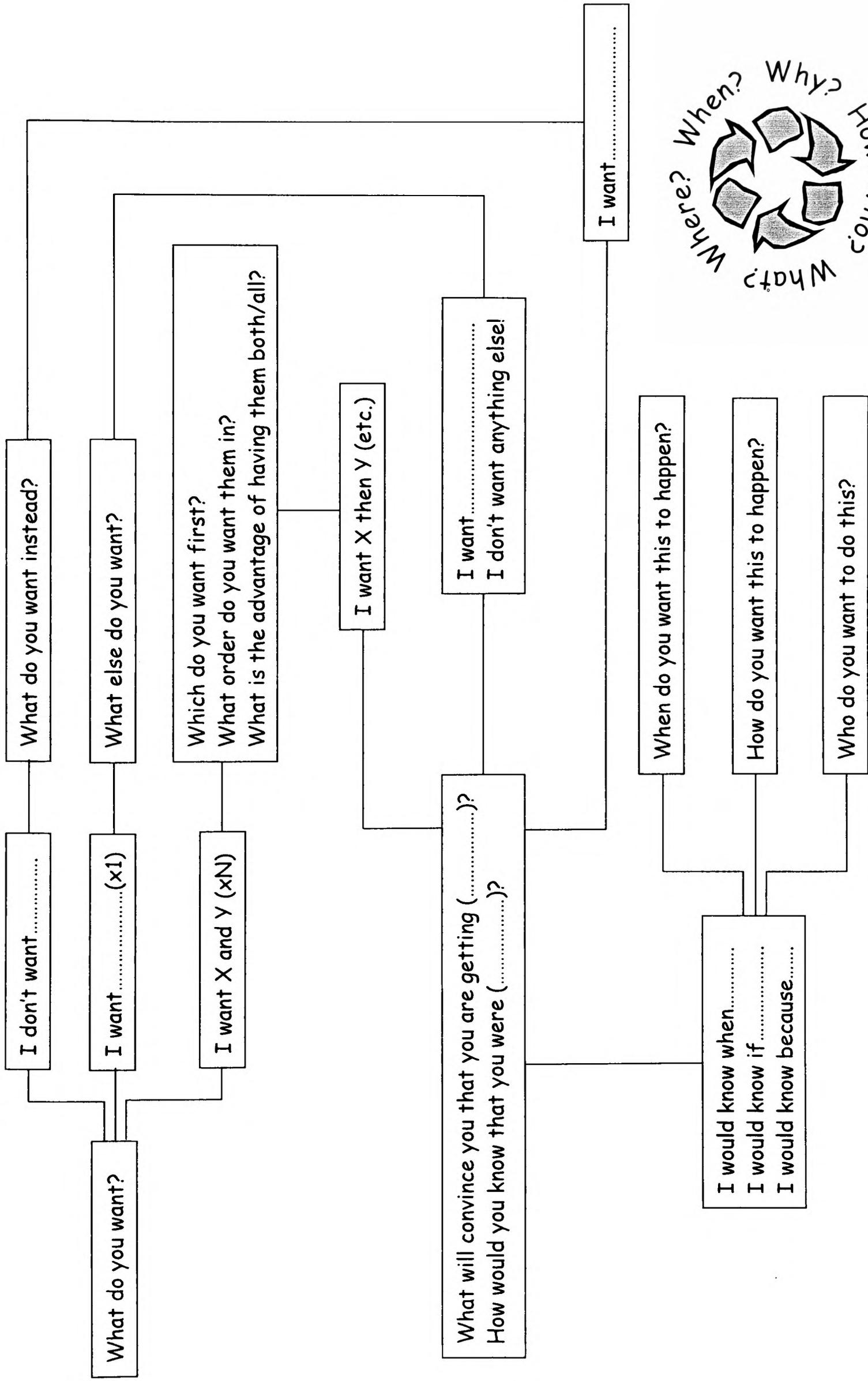


Figure 12 Workshop questioning model

9 Reflection

9.1 Introduction

The following is a description of the reflections undertaken at the end of the practical research process based on the following questions.

9.1.1 What were the specific factors that helped participation?

Teaching Staff:

For the Teaching Staff at the Inner City school the opportunity to show the school in a positive light by going over and above the call of the 'special measure' requirements was of great benefit to the project.

Non-Teaching Staff:

In my opinion the non-teaching staff were the group of participants who were most comfortable with the use of metaphor as a means of communicating and, therefore, apart from the students, they were the most enthusiastic about making their opinions known. So, in turn, it was their enthusiasm for this and the actual task in hand which promoted participation on their part.

Parents:

The parents were quite explicit about what it was for them which allowed us to draw out their perceptions of dealing with the Suburban School. It was the dynamic created by being perceived as independent from the school whilst at the same time being involved/knowledgeable enough about the local circumstances to appreciate both their positive and negative experiences, and current and future concerns.

Pupils:

For the pupils it was simply providing them with their own 'private' space - based upon the 'rules of participation' - to talk about themselves and their perceptions, without the fear of being wrong or indeed the pressures caused by the presence of 'representatives of the establishment'. In a way similar to the parents perceptions of us as researchers.

9.1.2 What were the specific factors that prevented participation?**General:**

In general, the first of these factors is perhaps not unsurprisingly our old friend *Time* or more specifically lack thereof. Although there was time enough in the preliminary data gathering and workshop phases, the synthesis, iteration, feedback and, evaluation aspects of the project, did not come to fruition due to both schools effectively withdrawing from the project prematurely. Another important factor was the 'rules' – in particular the teacher's union rule on extra curricula activities, as was an almost at times tangible *Fear* of letting the 'lunatics run the asylum'.

Teaching Staff:

There was a distinct lack of communication regarding the project – its rationale, the agreed levels of commitment and cooperation, also time pressures on staff were a significant factor. In the event no Teachers workshops were run at either of the research sites. In addition, there seemed to be an air of infantile arrogance which at one time was made explicit: 'why should they get a say when we don't?'

Head teachers:

Both the Head's were in place because of their respective reputations as 'strong' leaders with a clear direction of what it was that needed to be done in their particular circumstances. The decision taken to participate by both Head's seemed to be an autocratic one, judging by the initial responses of all those staff interviewed and/or facilitating the study. On the occasion of our initial meeting each and every individual member of staff claimed that they had no prior knowledge of the study, it's purpose, timescale, what their own involvement would entail or indeed that of the school's or student's. Despite the Head's claims of consultation with staff in general before that fact, and supposed briefings of specific individuals, in particular the members of the respective Senior Management Teams.

Non-Teaching Staff:

Within the Inner City School the presence of non-teaching staff was highly visible and access to them unproblematic. Notwithstanding that, they also reported a complete lack of forward information regarding the study. As for the Suburban School, non-teaching staff were conspicuous by their absence.

Parents:

Over reliance on the schools canvassing for participants and a general apathy towards education exemplified by the statement 'education...that's what we pay teachers for!' And, the general malaise caused by 'successive broken promises and let downs' prevent participation at the Inner City School.

Pupils:

As far as the pupils were concerned it was more an initial and at times total disbelief that: a) we were providing them with an opportunity to voice their own opinions and, b) that we were actually listening to what they had to say. In fact that we even cared in the first place. This attitude was most prevalent in, but not restricted to, the Inner City School.

9.1.3 What metaphor best describes the experience of the project?**The 'swimming in treacle' metaphor:**

This was the metaphor that sprang immediately to mind. I first became aware of it during an earlier intervention. It was arguably the least optimistic of the metaphors used to describe the current situation at HMP Hull. Again, as previously, in this case the metaphor is employed to summarize an overall impression of the problem situation. Perceived as an individual faced with the task of working within the school system the situation is as follows:

- the individual trying to achieve the objective is the swimmer
- the treacle is the viscous mélange that constitutes the working environment

As the new swimmer enters the organizational treacle, more often than not at the deep end, they often possess a strength born of enthusiasm and the novelty of the new. Thus, although the task may be strenuous, once the rudiments of the required motions are mastered, making headway is relatively easy. However, as

time goes by, the initial stock of enthusiasm is gradually eroded by the energy sapping effect of the viscous environment. Making headway becomes increasingly difficult and motivation decreases, in turn a decrease in motivation makes finding the energy to swim increasingly difficult. Therefore, a circular train of events is established that sees the individual in ever thickening treacle with less and less inclination to swim against the viscous tide.

9.1.4 Has the type/character of the issues generated changed as a result of the project?

In a limited way, the answer to the question posed is yes. The issues tackled by the student year councils were essentially social in their nature (examples). Whereas, some of the issues raised during the workshops had a different somehow more substantive complexion (examples).

9.1.5 Has the type/character of the problem solving methodology changed?

Overall, the process and methods employed worked well. However, despite the participants reported, and at times self-evident, enjoyment of the Saga Cards and metaphors exercise. There was still an almost tangible distrust of the data that emerged. Specifically, a feeling of anxiety amongst the adult participants (and one or two of the more informed students) regarding the reliance on what they perceived as solely ‘anecdotal’ evidence. This feeling was made explicit by some of the adult participants in particular the more ‘senior professionals’, and was implicit in the language employed by some of the younger participants when describing possible scenarios and likely outcomes of how the data gathered could be used.

As the project progressed the methods employed were refined in response to the above. However, for future ‘interventions’ a more oblique use of the metaphoric exploration of the problem situation would need to be considered. Particularly for use with the ‘senior adult professionals’ who were clearly the most skeptical regarding not only its legitimacy as a basic means of communication, but its validity as an ‘objective’ means of gathering data – somewhat missing the point altogether!

9.1.6 What have I learned about problem solving from as a consequence of participating in the research project?

When it comes to expressing the level of time and commitment to potential participants a policy of tell them what your going to tell them, tell them, then tell them what you have told them should be followed, with as many iterations as necessary!

9.1.7 What has been of greater importance, the outcome or the process itself?

Undoubtedly, the process given that the project did not run its full intended course.

9.1.8 What could have been done better?

Management of the relationship with the ‘sponsor’s’ of the projects. Allowing the sponsors to adopt a ‘scientific’ stance – i.e. by maneuvering themselves to create a situation where they insisted upon maintaining a degree of detachment. Their belief being that this distance would ‘support the validity of the study’.

9.1.9 Where there any important issues that were not surfaced during the project?

I would have to say that answering such a question is problematic. It is like attempting to plan for counterintuitive outcomes. Until they are surfaced how do we know they even exist let alone whether or not they are important issues. From a personal point of view, I would have to say that the actual extent to which the students would/should be given 'real' decision making/planning powers was one very significant issue which did not emerge in the process thus far. However, this what was for some very much a 'nettle' to be grasped may have been addressed had the projects run their intended course.

9.1.10 Were the principles of being systemic, achieving meaningful participation, being reflective and the goal of enhancing human freedom upheld?

Being Systemic:

I would have to say that in considering the whole we as researchers were in fact alone. For all their acknowledgement of the necessity of a holistic approach, and the perceived utility such an approach may contain, it was clear that this was nothing more than polite lip service. The participants betrayed themselves by continuing to display the traditional reductionist thinking that pervades our society.

Achieving meaningful participation:

A number of difficulties were encountered in achieving the principle of meaningful participation. Fundamental though it is, it proved to be troublesome to incorporate in practice. The work commitments of certain individuals, despite

good intentions, may have compelled them to truncate their involvement. Others appeared to find it necessary to take evasive action to avoid participation altogether. Without any substantive outcomes it is difficult to say with any certainty if this principle was upheld.

Being reflective:

This principle was not really tested as far as the participants were concerned as the planned follow-up activities were not carried out. As for myself, it is reflection on this project and reflections fed forward from problem situations in the past from which this thesis emerged.

9.1.11 What were the difficulties of researching in the school environment?

The main peculiarity of researching in the school environment was ensuring that there was always a second responsible adult present whenever the children were involved – especially in what would normally be termed ‘one-to-one’ situations.

10 Rules

Chapter 5 on rules begins with Durkheim's concept of anomie and Mayo's studies at General Electric's Hawthorne plant. It goes on to highlight Marx's concern over rules imposed by the controlling capitalist class and Weber's attention to organizational rules. It then describes and discusses the definition of rules, illustrating two basic interpretations of the concept of rules, these are the mechanistic and dynamic interpretation of rules. Asking the question: How can organizational rules be viewed?

10.1 Introduction

Rules are a common part of our organizational reality. As such, interest in the concept of rules is by no means a new phenomenon. As a concept rules have for a long time been afforded importance within social and organizational analyses (Mills and Murgatroyd, 1991).

For Mills and Murgatroyd (1991), this can be illustrated by Durkheim's concept of anomie (1966, 1968), Mayo's studies at General Electric's Hawthorne plant (1933), Marx's concern with how the controlling capitalist class sustains its rule (and imposes its own rules) upon the working class (1967, 1973) and, it would most certainly be amiss, when discussing the important role that rules play in shaping and guiding interactions within human activity systems, not to include the work of Max Weber (1947) which is expressly concerned with organizational rules.

Durkheim's concept of anomie (1966, 1968) is concerned with a state of breakdown, both individual and social. There exists a condition for those affected whereby the social and normative rules that render lives understandable have become lost - at best confused and at worst incomprehensible. Durkheim argues that organizationally based rules can replace the declining old normative rules, engendered via community and religion, as a means of answering what he perceives to be the growing problem of anomic breakdown. In my own encounters with HM Prison Hull (see; Clayton, 1996; Clayton and Gregory 1997a,b), the personalities in the prison appeared to be clinging to the organizational rules as a means of suppressing the variety inherent in the complex environments of modern organizational existence in particular, and modern life in general. This can be construed as a way of reducing their own confusion/anxiety and, in turn, perhaps going some way to resolving their own anomic crises.

Weber's (1947) often quoted and misconstrued work on bureaucracy was concerned with, amongst other things, rationality and how it is manifested and (re)affirmed by the elaboration of organisational rules. Weber envisaged a rational system of rules based on calculation, reason, and intellect, and characterised by impersonality. According to Mills and Murgatroyd (1991):

An important part of the reason why bureaucratic rules have been so successful engaging the obedience of organizational members has been their congruence – in spirit if not always in detail - with the dominant *weltanschauung*, or view of reality, rooted in rationality.

However, a large part of Foucault's work illustrates that people may be obeying regulations [rules] or acting in particular ways in a more subtle manner than

Weber envisaged (Fineman and Gabriel, 1996) - without being conscious of obeying orders, willingly or unwillingly (see Foucault 1965, 1971, 1976, 1977; Burrell 1988). Although the employment of rules is just one of many ways to coordinate and control the activities of individuals, groups and organizations, it can be argued that, like any other set of social dynamics, business 'is possible only where people are prepared to respect rules in the absence of which co-operation is rendered difficult or impossible' (Cragg, 1997).

10.2 Defining 'Rules'

Rules are part of our everyday organizational existence. In fact, it has been said that rules constitute the very 'glue' of organization (Starkey, 1996) - they are the devices through which plans (from the top) are realised. For Evans (1990), who writes from a Supervisory Management perspective, the use of such rules is immediately visible in formal organizations:

...we can usually see a clearly defined relationship between the members of the organization – there are the rulers and the ruled; status, ranks and different levels of power and authority can be identified. Rules exist to regulate the ways in which the members of the organization can or may communicate with each other; expected types of behaviour exist, and often written instructions on how tasks are to be performed (or not to be performed) are issued to members.

(Evans, 1986)

Under a section entitled 'The Supervisor and the law', Evans provides the reader with the three ACAS Codes of Practice that existed at the time his material was prepared. ACAS Code No. 1 – Disciplinary practice and procedures in employment – provides the following on rules:

Rules are to be as specific to the workplace as possible, and should cover the efficient and safe performance of work as well as the maintenance of satisfactory relations both within the work force and between employees and management. Every employee should have a copy; and they should be explained orally to every new starter at induction. Extremely important is the need for employees to understand clearly the likely consequences of breaking rules, especially where rule-breaking could lead to summary dismissal.

(Evans, 1990)

The same kind of sentiment is reflected in the concise definition of what it is that constitutes a rule, provided by Huczynski and Buchanan (1991). According to these particular authors, from an Organizational Behaviour perspective at least:

A rule is a procedure or obligation explicitly stated and written down in company manuals.

(Huczynski and Buchanan, 1991)

From the viewpoint of Personnel Management, Torrington and Hall (1995) outline the following for workplace rules:

- Rules should be clear and readily understood.
- The number of rules should be sufficient to cover all obvious and usual disciplinary matters.
- Employees should have ready access to the rules, through the employee handbook and noticeboard, and the personnel manager will always try to ensure that the rules are known as well as published.

They also state that, to ensure general compliance, it is helpful if employees and management determine such rules jointly. However, such consultation/participation is not always to be found in the nature of contemporary organizations. Consequently, it is more common in practice for the rules to be formulated by management and later agreed by employee representatives (Torrington and Hall, 1995).

The Department of Employment (1973) suggest that workplace rules fall into six categories, relating to different types of employee behaviour, as follows:

1. Negligence: failure to do the job properly, not to be confused with incompetence
2. Unreliability: failure to attend work as required, such as being late or absent
3. Insubordination: refusal to obey an instruction, or deliberate disrespect to someone in a position of authority
4. Interfering with the rights of others: covers a range of behaviours that are deemed socially unacceptable
5. Theft: a clear-cut aspect of behaviour that is unacceptable when it is from another employee. NB. theft from the organisation should be governed by explicit rules, as stealing company property is regarded by many offenders as one of the perks of the job
6. Safety offences: those aspects of behaviour that can cause a hazard

(Torrington and Hall, 1995)

However, what is required here is a broad definition of ‘rules’ that encompasses all the elements that constitute the framework that shapes/guides our actions. My own everyday experience, in life and in organizations, has for the most part shown that ordinary people do not necessarily make the same distinctions between rules – explicitly stated and written down – and the other rules of doing, norms, moral obligations, ethics, Acts of Parliament, Government Guidelines, Standing Orders, Codes of Practice, Professional Ethics, Manuals of Procedure, Traditional Practices, Mission Statements, Goals/Targets to be met and, more generally ‘The way we do things round here’, as might the academic community. Therefore, I would tend to concur with the account expressed by Mills and Murgatroyd (1991):

...we view rules as phenomena whose basic characteristic is that of generally controlling, constraining, guiding and defining social action.

(Mills and Murgatroyd, 1991)

Along with the multiplicity of perspectives on organizations, there are manifold definitions and, thereafter, uses of the concept of rules. Some maintain the notion that the state of orderliness, which many organizations diligently pursue, is without prevarication directly attainable via the (rationally extant) rules (a mechanistic view of rules), whilst others concentrate upon the origins and consequences of organizational rules with a particular emphasis on the political implications of rule design, enforcement and application (Salaman, 1983). This view, whilst it is still concerned with structure, is in this case a result of negotiations, interpretations and modifications that produce a constantly changing orderliness – an organic/evolutionary/dynamic view of rules.

In *Rules and Organization*, Mills and Murgatroyd (1991) identify seventeen ways of viewing rules, these are:

1. rules as the creation of human actors (interactionist)
2. rules as structures standing over and above actors (structuralist)
3. rules as negotiated order
4. rules as dictates of powerful actors
5. rules as sense-making phenomena
6. rules of control
7. rules as deliberately created phenomena
8. rules arise out of situations
9. rules lack universality
10. rules are not always known
11. rules as misunderstanding
12. rules are resisted
13. rules and spaces
14. rules as historical phenomena
15. rule intersection in the establishment of organizations
16. organizational rules are informed by meta-rules
17. rules as gendered phenomena

We will now begin to examine each of these propositions based on Mills and Murgatroyd's (1991) analyses, with additions and some examples from my own

experiences of 'research' and 'real life'. Firstly, following Mills and Murgaroyd's schema: (1) rules are the creation of human actors (an interactionist approach) and (2) rules stand over and above actors (a structuralist approach).

10.2.1 Rules as the creation of human actors

Mills and Murgatroyd (1991) turn in the first instance to the law as a provider of an excellent example of rule use. As it appears on the surface the popular understanding of the legal system is one which has at its very core a series of rules against which offenders are judged and dealt with accordingly – in other words offenders are rule breakers. They describe the movie *The Accused*, through which we are provided with an insight into how the system operates in practice:

The movie deals with the subject of multiple rape and shows how, through a context of plea bargaining, the charge against the actual perpetrators is reduced to reckless endangerment. The prosecution and the defence negotiate to arrive at an agreed-upon rule to handle the situation. The common assault charge satisfies the prosecution in that it carries an imprisonment term, and it suits the defence because their clients, while facing a jail term, are not 'tainted' with a 'sex crime'. The central actors in the situation - the prosecution and the defence - have managed to create a particular view of reality to fit an actual situation.

(Mills and Murgatroyd, 1991)

This situation is taken from a movie but mirrors somewhat the study into what Sudnow (1978) named 'normal crimes'. The study documented several ways in which the system of plea bargaining determined how any given 'crime' is viewed, rather than the penal code itself (rules for judging and dealing with offenders). Indeed it could be argued that this process of rule '(re)creation' is the very essence of what it is to be a lawyer:

...lawyers make a profession out of finding a new angle on what appears to be a clear-cut rule...

(Morgan, 1986)

In similar ways many organizational members are also adept at the process:

...many organizational members are able to invoke rules in ways that no one ever imagined possible. An ability to use the rules to one's advantage is thus an important source of organizational power and, as in the case of organizational structures, defines a contested terrain that is forever being negotiated, preserved, or changed.

(Morgan, 1986)

10.2.2 Rules as structures standing over and above actors

Although Sudnow's (1978) study demonstrates how legal rules cannot be considered as hard social facts, it does not succeed in fully coming to terms with the rule context in which decisions are negotiated (Mills and Murgatroyd, 1991). He fails to deal with the 'more concrete' form of social organization – the penal code – that he alludes to as a background feature (Burrell and Morgan, 1979), despite the actuality that the actions of both the protagonists, public defender and prosecutor, can be perceived of as adapting broader rules to fit a particular situation.

It could be argued that Weber's work on bureaucracy (1947) is the archetypal account of the power of rules to affect and organize the potentially manifold behaviours of an organizations members. Bureaucracy works for Weber because of its capacity to co-ordinate the activities of organization members via a series of rational-legal rules - it is a more efficient form of organization than other traditional forms.

It is through this rule-bound quality of organizational activity and the consequent dominance of a spirit of formalistic impersonality that organizations achieve their distinguishing feature of calculability

(Salaman, 1983)

According to Mills and Murgatroyd (1991):

Anyone who had read real or fictional accounts of life within the confines of total institutions will readily concede the fact that rules can be felt as existing over and above the actors whose behaviour they seek to control

In addition:

We have seen that moral rules have a particular authority, by virtue of which human wills abide by their prescriptions simply because they so ordain, and independent of the possible outcomes that the acts thus prescribed may have. To do one's duty because it is a duty - this is to abide by the rule because it is a rule. How does it happen that a rule, humanly contrived, can have such ascendancy, that it can so bend the wills of those human beings who themselves make it?

(Durkheim, 1973)

The examination of the first two views on rules suggests a number of further ways that rules may be viewed, these are: (3) rules are negotiated, and also that (4) rules may involve powerful actors.

10.2.3 Rules as negotiated order

William Buckley (1968) noted the existence of certain house 'ground rules' beyond which there were continued negotiations with rules being argued, ignored, lowered or stretched, as the situation appeared to require. In addition, Sudnow's (1978) study demonstrates that rules can be derived through a process of negotiation. A process which can span several levels. These might begin with actors engaging directly in one-to-one negotiations in order to arrive at a decision,

and arguably end at another level where actors are in actuality not directly engaged in negotiations but are instead negotiating through a pre-existing set of rules – in Sudnow’s case the penal code.

The work of Strauss, Scatzmann, Erlich, Bucher and Sabshin (1978), cited by Mills and Murgatroyd (1991), has developed the theme of negotiated order. As Strauss *et al* argue, ‘order is something at which members of any society, any organization must work’. In any event the shared agreements, which form the basis for expectable, taken-for-granted, even ruled orderliness are, to a greater or lesser degree, ephemeral and not binding nor shared for all time:

Contracts, understandings, agreements, rules – all have a temporal clause. ...In short, the bases of concerted action (social order) must be reconstituted continually; or... ‘worked at’

(Strauss, *et al.*, 1978)

Within the concept of negotiated order is the recognition that various parties contribute to the resultant outcome. In Strauss *et al*, patients engaged in bargaining in a hospital setting – including placement on given wards, choice of psychiatrist and the length of stay in hospital. In my own experience, this is something I have witnessed first hand in a prison setting, where the inmates regularly engaged in bargaining processes, most noticeably with individuals from the lower echelons of the prison’s organizational strata – uniformed and non-uniformed staff. Negotiations were usually over access to privileges (such as TV viewing), and occasionally seeking to affect the regime – including accommodation on given wings.

10.2.4 Rules as the dictates of powerful actors

In any given situation it is clear that relationships to the rules are not equal for all actors - there are the rulers and the ruled; status, ranks and different levels of power and authority. Returning once more to Sudnow's study, it was ultimately the lawyers who decided what was to be the outcome of any given situation. The resulting consequences for the less powerful actors embroiled in the situation can have serious repercussions. For, as in the movie *The Accused*, the reality created by the prosecution and defence saw the victim reduced to a 'tramp'. By the definition applied to the crime she is reduced to a sex object who just happened to get injured as a result of participating in a series of sexual acts (albeit against her will) .

With regard to this particular way of viewing rules, my own experience has shown in two settings how actors feel that the rules by which they operate on a daily basis have come to pass as the dictates of a more powerful actor. In a Prison setting, the rules that determine 'normal' working conditions are seen as outside the local actors' sphere of influence – i.e., working conditions are negotiated at the National level. This leaves little or no flexibility to take account of prevailing local exigencies. In a School setting, local actors – teachers, managers, and governors – are handed down the rules of 'what will be taught' by means of the National Curriculum set by Government. And, when considering bureaucracy, Gouldner (1954) asserts that 'bureaucracy is man made, and more powerful men had a greater hand in making it'.

Continuing with the schema, further information about rules can be abstracted from views 3 and 4: (5) rules as sense making phenomena, (6) rules control behaviour, (7) rules are deliberately created and, (8) rules arise out of situations.

10.2.5 Rules as sense making phenomena

Under this heading Mills and Murgatroyd (1991) describe how, as individuals when we join an organization for the first time, it is not unlike attempting to participate in a game for which we hold only a partial knowledge of how it should be played. Established rules help us, at one level, to reach a certain understanding of ‘what is going on’ but, at another level, the various actors in interaction are making choices about which rules are appropriate for the definition and understanding of a given situation – for their examples see: in an educational setting, McGuire (1988); and in a hospital setting, Strauss *et al* (1978) and Goffman (1957, 1959, 1984).

However, the relationship between rules and sense making is in fact a complex one. Making reference to Zimmerman (1978) and Schall (1983), Mills and Murgatroyd (1991) describe the argument that it is not so simple as learning the rules themselves that assist in the process of sense making but, instead, it is the very existence of the rules that can be called upon to help with the definition of the particular situation in question.

Zimmerman’s (1978) study, including the actual rule-use of receptionists in a district office of a Metropolitan County Bureau of Public Assistance, calls into question the traditional perspective of organizational activities as ‘administratively rational’:

the 'competent use' of a given rule or a set of rules is founded upon member's practical grasp of what particular actions are necessary on a given occasion to provide for the regular reproduction of a 'normal' state of affairs. A feature of the member's grasp of his [sic] everyday affairs is his [sic] knowledge, gained by experience, of the typical but unpredictable occurrence of situational exigencies that threaten the production of desired outcomes.

(Zimmerman, 1978)

Hence:

...the notion of action-in-accord-with-a-rule is a matter not of compliance or noncompliance *per se* but of the various ways in which persons *satisfy* themselves and others concerning what is or is not 'reasonable' compliance in particular situations. Reference to rules might then be seen as a common-sense method of accounting for or making available for talk the orderly features of everyday activities, thereby *making out* these activities as orderly in some fashion

(Zimmerman, 1978)

Coming from a different perspective Schall's (1983) work is concerned with the rules of communication - these are for the most part unwritten and unspoken. They are about the appropriate and acceptable ways to interact and communicate with others in any given situation. One of Schall's key points is that communication-rules have an important part to play by acting as cues, signalling definitions of situations, impacting directly upon how rules are chosen for the acting out of such a situation. Here, 'definition of the situation' means the actors' interpretation of what it is that is going on here (Schall, 1983). This definition may be based on various, often multiple, factors, for example, role, relationship, or the focus of events:

The definition inferred will activate compliance to rules seen as appropriate to that kind of situation.

(Schall, 1983)

An example of this is the 'pick any object' activity/demonstration used in the intervention at Her Majesty's Prison Hull (Clayton, 1996). The individual who participated in the demonstration chose, consciously or unconsciously, to apply the rules of the archetypal magician's 'pick a card' trick, in order to make sense of a situation which was both unfamiliar and, at the same time, deliberately lacking in contextual information. This is explained below.

At a multi-agency meeting many of the 'solutions' offered to specific 'issues' were immediately discarded by way of being 'against the rules'. However, when challenged there was an inability to provide any evidence to the fact - for example, the request for a weekend contact point for the probation service. According to the main protagonist the rules specify that working hours are from 9 to 5, Monday to Friday. However, to the best of the knowledge of those present, nowhere does it state in the rules 'Thou shalt not supply a weekend contact point'. Unfortunately, this argument was declared null and void, the rules in this case were claimed to delineate what is possible, and therefore what is not, simultaneously.

I suggest that what was happening in this instance, was that the issue of no weekend cover that appeared to be a rule, at least *prima facie*, was being mistaken for one of a more substantive complexion. That indeed a rule that specifies what is, does not in essence specify what is not, for all rules are open to interpretation. For, in the case of the prison, the 'hard and fast' rule intended to prevent the association of young offenders with adult prisoners - to prevent 'contamination' - had been waived in order to maximise the utility of the prison listener scheme.

Despite this and other ‘evidence’ to the contrary the belief that rules are ‘real and concrete’ prevailed. Therefore, a practical demonstration to show the constraints of this predominant perception of rules was provided.

One of the more robust individuals was selected from those present, and five objects were placed before him: a pen, a tea spoon, a biscuit, a small plate, and a cup. Then without any verbal communication the objects were rearranged, slowly as if with great deliberation, changing the order several times, finally the chosen person was asked to ‘pick any object’ . Without hesitation he chose the biscuit. When asked if I had at all influenced his choice he replied emphatically ‘No’. Further, he was asked if there was any way that I could have influenced his choice, he replied with an even more emphatic ‘No’. The exercise was repeated and he was again asked to: ‘pick any object’, and although a different object was selected, the response to the previous questions, posed once more, were identical. I then asked why had he chosen one of those objects I had placed before him, in preference to all the other objects available to him in the room we presently occupied - a puzzled look crept over his face.

He had taken it as given that the rules of the game specified that any choice of item should be made only from those placed before him, and therefore, those objects not placed before him were excluded from the game - even though the direction was clearly to ‘pick *any* object’. Although the demonstration was aimed at emphasising the mind trap, caused by the restrictive nature of the prevailing conception of rules, it was the opinion of those who observed that it was by my deception, not my influence, nor the perception of rules, that the choices had been

made. I had not played by 'the rules' of the 'take a card game' of which this was considered an obvious adaptation.

10.2.6 Rules of control

Whatever the truth of the matter, systems of control are a central feature of organizations.

(Mills and Murgatroyd, 1991)

William Buckley (1968) found that in the organizations that he studied, the areas of human interaction which were covered by clearly defined rules were small. He noted the existence of certain house 'ground rules' but beyond that there were continued negotiations with rules being argued, ignored, lowered or stretched, as the situation appeared to require. The rules do not act as universal prescriptions which provided the neutral impersonal direction that Weber had imagined. Instead, human action and choice continued to be demanded in their application (Huczynski and Buchanan, 1991).

For Clegg (1975), organizational members act within a *framework* of rules:

a framework that provides a ready-made sense of reality as a guide to action within the organization. Rules, none the less, have to be interpreted and enacted, and it is through that process that actors may decide to ignore, change, challenge or reject the rules; organizational power struggles often result.

(Clegg, 1975)

According to Huczynski and Buchanan (1991), research studies on rules suggest that the behaviour of people in organizations cannot be explained in terms of them conforming to rules. In many instances, it is only by ignoring company rules that work can get done. This is what makes 'working-to-rule' such an effective union weapon during the time of industrial dispute.

The same is true in relation to rules, regulations, and other kinds of formal procedures. Just as a job description can be used by an employee to define what he or she is not prepared to do ('that's not part of my job' or 'I'm not paid to do that'), rules and regulations often prove to be two-edged swords. One outstanding example, provided by Morgan (1986), could be found in the case of the old British Rail where employees discovered the true power of 'working to rule'. Instead of employing strike action in furtherance of a claim or grievance, a means to an end that can prove to be costly to employees in terms of loss of pay, the union would resort to a declaration of a 'work to rule'. Employees did exactly what was required of them as stipulated in the regulations developed by the railway authorities. As a direct result hardly any train left on time, schedules were rendered meaningless, and the whole railway system was quickly reduced to a snail's pace if not brought to a complete halt. The rules which individuals were adhering to were of course devised to control employees, to protect the safety of passengers, and to help to protect the railway authorities, in the event of a major accident. A clear set of rules delineating roles and responsibilities can be used after the fact of an incident to help apportion blame. The problem was that with

so many rules and regulation to choose from they rendered the railway system almost inoperable.

As Huczynski and Buchanan (1991) suggest, any normal functioning requires employees to employ shortcuts or at the very least streamline procedures – and of course this is not just true of British Rail. Every organization will have similar rules that go unapplied as a matter of routine. The real significance of these rules lies with their creators. It is never more evident than in the public investigations following major accidents. Investigators set about comparing the evidence of events with the ‘norms’ prescribed in formal rules and regulations to ascertain who is in error. Sometimes gaps in the rules are found. Occasionally gross negligence is uncovered. But more often the accident is no more than what Charles Perrow calls a ‘normal accident’ in the sense that its probability is built into the nature of the system (Morgan, 1986). The apparently newly discovered practices that constitute the rule breaking activity have more often than not been broken a thousand times before as part of normal working practice and, with the full and certain knowledge of those in charge, since normal work is impossible without breaking the rules:

For Clegg (1981):

Control in organizations is achieved through what may be termed ‘rules’. These rules are not necessarily formally defined by members of the organization, although they may be. They do not depend on the member’s cognisance of them for their analytic utility. ‘Rules’ is meant merely as a term by which one can formulate the structure underlying the apparent surface of organizational life.

Essentially, Clegg's line of reasoning is that, through varying degrees and arrangements of the major areas of rules, the composition of organizations are determined. Clegg classifies rules as taking one of six major forms that he terms 'selection rules': extra-organizational rules, technical rules, social regulative rules, reproduction rules, strategic rules and state rules – these are outlined below in Table 8.

‘Selection Rules’	Description
extra-organizational rules	social values translated into organizational rules
technical rules	the way the process of production acts to control the employee
social regulative rules	more subtle means such as the creation of a strong organizational culture
reproduction rules	maintaining the status quo, serving the interests of those in control and providing new ideas for the maintenance of control
strategic rules	influence that powerful organizations have over a given community such as a company town
state rules	State intervention

Table 8 - Typology of rules based on Clegg (1981)

10.2.7 Rules as deliberately created phenomena

Rules are normally established in organizations in an attempt to facilitate coordination and control. These often far-ranging rules are carefully written down with the express notion that they will be made available for all to see and henceforth follow. Classically, bureaucratic organizations are proffered as the archetypical models of consciously designed systems of rules, with the existence of clearly defined rules forming the very basis of efficiency for the bureaucratic methods of organizing. For, according to Weber, members of an organization are more likely to buy into its dictates if they can see that they emerge from and conform to a set of rationally based rules.

According to Salaman (1983), Gouldner expresses a direct link between bureaucratic rules and control, arguing that:

rules are a form of control that will be used when alternative forms are no longer possible, and bureaucratization is not simply the rational introduction of a technically efficient, objective organizational structure, but as a result of, and a stage in, the conflicting relationships that characterize industrial organizations.

(Salaman, 1983)

Obviously, no two organizations will be exactly the same in the extent to which they enforce written rules upon their employees. Operating under conditions of increasing uncertainty, or engaging with volatile markets, may necessitate greater reliance on rules of a more informal complexion, which are more consistent with the flexible approach needed to transact business under such conditions (Burns and Stalker, 1961). Work has also been carried out to suggest that in some cases, such as professional environments where individuals hold expectations of

personal autonomy, the enforced imposition of bureaucratic rules can be counterproductive leading to unwanted conflict (Padsakoff, Williams, and Tudor, 1986), with professionals maintaining that preparation for their acquired status serves to internalise their own rules of control (Hall, 1978) - thus rendering the imposition of 'extra' rules superfluous, and an insult against their integrity.

10.2.8 Rules arise out of situations

A large body of management and organizational literature has placed an emphasis on the view of the *rational* organization. However, this view, containing deliberately formulated rules, is only a partial representation of organizational reality. Bureaucratic rules are necessarily open to interpretation. Actors respond to the peculiarities of a given situation whilst appearing to satisfy the rules, by simultaneously reacting to circumstances according to a different set of rules than those laid down (Mills and Murgatroyd, 1991).

Any actor's attempts to discharge their duties in an organizational context are almost predestined to be constrained by factors of time, resources, and to a lesser degree perhaps reliance on the actions of others. These constraining factors may conspire to render the following of any given rule-set almost impossible. The process of rule interpretation is vital to the way any organization actually operates. It may be possible to define procedures, courses of action prescribed by a set of situation appropriate rules, for example, to ensure uniformity of quality. However, rules with an intended global sphere of operation must be, by their very nature, abstract, in order that they might provide guidance for different courses of action aimed at completing objectives across diverse situations.

A large body of rules – written and unwritten, explicit and implicit – arise out of the interactions of organizational members as they attempt to deal with on-going problems.

(Mills and Murgatroyd, 1991)

After placing their analysis of rules under even closer scrutiny, Mills and Murgatroyd argue that: (9) rules lack universality, (10) rules are not always known, (11) rules are not always understood, (12) rules are resisted and, (13) there are spaces between rules.

10.2.9 Rules lack universality

The Hawthorne Studies serve as a well-established example of how organizational members differ in their relationship to organizational rules especially based on their relationship to goal-oriented activity. In a study of the ‘bank wiring room’, researchers uncovered informal norms for the restriction of group output developed by employees despite existing organizational norms of maximization of effort. These norms (1 -You should not turn out too much work. If you do, you are a ‘rate buster’; 2 You should not turn out too little work. If you do, you are a ‘chiseller’) were referred to by Roethlisberger and Dickson (1939) as the group’s rules of behaviour.

In bureaucracies, and no doubt elsewhere, rules are called upon as minimum specifications of effort. For example, in my experience of a prison setting (Clayton, 1996, 1997a, b, 2000) performance over and above the individual, functional and/or specialist prescribed role, or indeed rank or status, as defined by detailed and unambiguous job descriptions and procedures, is not required. In fact

in the case of the prison, more often than not, it is frowned upon and actively discouraged. Any 'over-accomplishment' is considered to be a hindrance rather than a help. In other words, 'just enough' is not in fact just enough, rather it is exactly what is expected.

In the prison system there is a 'rule' that young prisoners should not be allowed to associate with adult inmates. This is a means of preventing/avoiding 'contamination' and 'exploitation' of the younger prisoners by the adult prison population. However, this rule has been waived in establishments where the suicide prevention scheme has led to the installation of some suitable mature inmates to act as 'Samaritans'.

People may agree with new rule-sets for a multitude of reasons, not least because they are in agreement with previously accepted rules. Reasons for compliance may rest with the 'business' with which the organization is concerned (Etzioni, 1961), see Table 9 for some examples.

Organization	Goal	Compliance
Prison	Order	Coercion
Factory	Economic	Utilitarian
Political	Cultural	Normative

Table 9 - Examples of reasons for compliance with rules (Etzioni, 1961)

There is also another suggestion to account for rule compliance among individuals, and that is the profound human need to know what you are about,

reducing the uncertainty and chaos inherent in the world – see: Clegg (1983), Giddens (1982) and Durkheim (1966, 1968).

10.2.10 Rules are not always known

Rules can be followed consciously or unconsciously. It seems reasonably obvious that it is possible to proffer numerous explanations to account for an individual's commitment to 'the rules', with at least all of the following being possible:

- some persons simply have a preference for acting subject to the constraints of such rules
- the commitment is the result of an essentially "unconscious" process of socialization
- the disposition to make such commitments is the upshot of an evolutionary process

(McClennen, 1997)

According to McClennen (1997), the problem with explanation (1) is that it is *ad hoc*. Those of an economic persuasion would seem to favour explanation (2). Whilst, more recently, explanation (3) has been promoted by both economists and philosophers. As Clegg identifies 'rules do not depend on the member's cognisance of them for their analytic utility'. In the example of McGuire's (1988) study of the Canadian distance learning university, those who were new to the faculty took some not inconsiderable time to reach an understanding of the very different set of rules from those in place in more traditional university settings, yet in the interim period they were quite capable of functioning. They did this by acting in accordance with expectations of the rules, without any prior knowledge of those rules and especially their substantive content.

10.2.11 Rules as misunderstandings

Understandings about the use of particular rules are arrived at via processes of interaction resulting in a succession of rule interpretations. Inevitably, over time, misunderstandings will emerge from these interactions, from what is after all no simple process. However, one facet of rules is their non-rational character, they are for all time open to interpretation:

The history of organizations is littered with crucial incidents and actions that arose out of misunderstandings.

(Mills and Murgatroyd, 1991)

10.2.12 Rules are resisted

Individuals all have their own personal view as to what constitutes right and proper behaviour. They often will not accept other people's views which may be represented in certain organizational rules and procedures (Huczynski and Buchanan, 1991). There are many options available to organizational members who wish to execute informal negotiations over the rules as they are presented to them. A wide assortment of strategies can be deployed by those wishing to modify or change rules, to maintain those currently in existence, or to arrive at new rules altogether. Strategies may range from passive resistance, thru deliberate misunderstandings, to positive actions such as outright refusal.

In this way, organizational rules are not simply the proclamations of those actors who hold dominant positions within organizations. They are the 'resultants' of, to a greater or lesser extent, negotiated outcomes.

10.2.13 Rules and spaces

Not all behaviour within organizational settings can be ascribed to rules, not even in total institutions, as is evinced by the work of Goffman (1959, 1984) - there are spaces. Goffman (1959) provides an example of such a space explaining how a waiter is expected to act in accordance with a set of well established rules whilst engaged in customer facing activities, but who once occupying areas out of the public eye appears to take on a completely different persona. Goffman's (1984) study in the setting of asylums reflects this notion of multiple spaces which patients were able to occupy. In essence, three kinds of spaces were identified. First, and perhaps most easily identifiable, space that was clearly 'out of bounds'. Second, termed 'surveillance space', was the area subject to the normal restrictions and authority of the institution, the space an inmate needed no special reason for occupying. Third, and lastly, was an emergent space arising out of unspoken staff/inmate cooperation. This space was subject to less than the usual staff authority creating bounded physical spaces, which thereafter, provided opportunities for inmates to 'openly engage in a range of tabooed activities with some degree of security' (Goffman, 1984) – facilitated by a reduction in surveillance levels and restrictive practices.

At this point in their review, Mills and Murgatroyd (1991) note that what Goffman terms *free places* makes reference to both physical and authoritative spaces. Further, that these spaces are for the most part 'creations' of the rules themselves. Not at all in fact solely areas on which the rules are silent.

Up until this point Mills and Murgatroyd's schema has been directed towards organizational rules set firmly at the level of the organization itself. As organizations must be seen in a wider context of interaction and interconnectedness, and as the previous discussion of rules has intimated, in a broader view of organizational development attention is now drawn to (14) rules as historical phenomena, (15) rules intersection in the establishment of organization and, (16) organization rules informed by broader meta-rules.

10.2.14 Rules as historical phenomena

For Mills and Murgatroyd (1991), a serious flaw with ethnomethodological approaches to organization is that they are unsuccessful in accounting for historically established relationships. For:

The very term structure implies that a series of interactions and understandings have, *over time*, cohered into some kind of pattern.

(Mills and Murgatroyd, 1991 – original emphasis)

Authors Berger and Luckmann (1984) and Clegg (1981) concur, providing a useful account of the relationship between interaction, structure and history and the recognition that the organization is a historically produced phenomenon respectively:

All human activity is subject to habituation. Any action that is repeated frequently becomes cast into a pattern, which can then be reproduced with an economy of effort and which, *ipso facto*, is apprehended by its performer *as* that pattern...Institutionalization occurs whenever there is a reciprocal typification of habitualized actions by types of actors. Put differently, any such typification is an

institution...Institutions further imply historicity and control. Reciprocal typifications of actions are built up in the course of a shared history. They cannot be created instantaneously. Institutions always have a history, of which they are the products. It is impossible to understand an institution adequately without an understanding of the historical process in which it was produced.

(Berger and Luckmann, 1984)

Rules are the fundamental organizing principles underlying decisive breaks of or interventions into control of the labour process. Each rule represents a distinct and historically evolved principle of organization that is embedded in the actual functioning of the organization.

(Clegg, 1981)

As an exemplar of the historical significance of rules Mills and Murgatroyd (1991) refer to the debates surrounding the birth of the idea of organizational culture. In particular the interest of US companies in emulating Japanese management structures (Lee and Lawrence, 1985), as a result of which various US companies attempted to recreate Japanese management structures and styles. Referring to Ouchi (1981), they point out that these structures and styles were in fact a reflection of the broader and arguably more complex Japanese culture, itself the result of centuries of evolution.

Clearly it would be foolish to attempt to supplant such a style in a different (US) cultural context

(Mills and Murgatroyd, 1991)

10.2.15 Rule intersection in the establishment of organizations

In essence each and every organization is totally unique. Each organization is the product of a very particular aggregation of rules, mainly complementary:

the very configuration of such 'rules' of behaviour...distinguishes one social or organizational group from another; it is an essential part of their cultural identity

(Mills, 1988a)

Rules appropriate for one organization may be less appropriate, or indeed inappropriate for others, leading to infinitely diverse configurations each with their own very different consequences for our understandings of activities within particular organizations. In effect we are confronted with a unique set of rules for running and coping with the system (Mills and Murgatroyd, 1991).

10.2.16 Organizational rules are informed by meta-rules

On entering 'any' organization for the first time we are apparently not at a total loss. We may not appreciate the distinctive 'rules of the game' but we do have a reasonable awareness of how games are played (Mills and Murgatroyd, 1991) – for the social values and institutions of a given country impel the rule formation within organizations in that country (Sterniczuk, 1988).

However, a number of business writers have argued that business is a game and, like a game, possesses its own special rules for acting, for example:

While we do not normally tolerate deceit, bluffing is not merely acceptable but also expected within the game of poker. Similarly, lies of omission, overstatements, puffery and bluffs are morally acceptable within business because it, like a game, has a special ethic which permits these normally immoral practices

(Carr, 1968).

So we may face a dilemma. Individuals have their own personal view as to what constitutes right and proper behaviour. They often will not accept other people's views which may be represented in certain organizational rules and procedures (Huczynski and Buchanan, 1991). If that should be the case then it becomes a matter of individual conscience:

whether to become winners by playing the game by its not-too-pleasant rules, or whether to maintain our integrity by keeping outside the game - and so risk becoming losers

(Fineman and Gabriel, 1996)

Finally, Mills and Murgatroyd (1991) declare that any analysis of organizational rules must recognise that rules can be fashioned from sexually differentiated way of being. Don't you know that it's different for girls! (Jackson, 1979): (17) rules are gendered.

10.2.17 Rules as gendered phenomena

In the last of their 'ways of viewing rules', Mills and Murgatroyd (1991) emphasize gender as a culturally created phenomenon; a phenomenon brought about by a string of rules functioning across multiple levels. The most

fundamental of these levels sees the acquisition of a set of meta-rules via which we are introduced to a whole succession of other rules:

From very early in life children learn to 'read' or understand social rules of behaviour through what might be called *master rules*, i.e., sense is made of each of a number of rules by reference to a broader, more-or-less coherent class of rules which coalesce in notions of gender, of class, or race, and so on...

(Mills, 1988b)

The growth of identity denotes that meta-rules are developed, sustained, or abandoned through the whole process of interaction. In other words:

we may enter into organizations as more or less gendered persons but the process does not stop there. Organizational rules themselves can influence how we are viewed and how we view ourselves.

(Mills and Murgatroyd, 1991)

Or as Goffman (1984) puts it:

Organization can be viewed as a place for generating assumptions about identity.

At the time Mills and Murgatroyd (1991) were writing, the organizational analysis research community was only just beginning to recognise the significance of the contribution of organizational rules to the construction of gender. Morgan (1986), for example, states that:

It often makes a great deal of difference if you're a man or a woman! Many organizations are dominated by gender-related values that bias organizational life in favour of one sex over another. Thus, as many feminist writers have emphasized, organizations often segment opportunity structures and job markets in ways that enable men to achieve positions of prestige and power more easily than women, and

often operate in ways that produce gender-related biases in the way organizational reality is created and sustained on a day-to-day basis. This is most obvious in situations of open discrimination and various forms of sexual harassment, but often pervades the culture of an organization in a way that is much less visible.

(Morgan, 1986)

Before moving away from the schema of Mills and Murgatroyd (1991) altogether I believe that their analysis reveals one more way of seeing rules (18) rules are not static.

10.2.18 Rules are not static:

Taken as a whole I would argue that at the very least one common theme can be drawn from Mills and Murgatroyd's analysis, that is, that rules are not static.

Though they are often eluded to as such, especially when it is convenient to do so:

Rules can be both fixed and elastic. At any given time the moves of individuals depend, as in such sports as football, on a pattern that is constantly evolving. To achieve a golden mean between violence and dullness in sport involves trying out new game manoeuvres and making new rules that permit both order and excitement.

(Pheysey, 1993).

Rules are often manipulated in the service of self interest. In organizations multiple 'games' are being constantly played out simultaneously everyday in a whole array of different arenas. The 'players' – individuals and groups - in these games are often consciously trying to (re)define the 'rules' to suit their own particular interests, with some of the most important games of all being the games which determine the rules by which other games will be played out. For example,

the rules by which a decision-making process should ultimately arrive at a decision – is a unanimous decision required, or will a majority vote suffice?

Some people are surprised by such a scenario:

Most of our students were not prepared for the complexity and multitude of organizational games they encountered. Some were surprised, even shocked, when they happened upon practices which they did not know were there, or that did not seem altogether right or clear – but which certainly affected their work. It was particularly revealing when ‘information’ and ‘facts’ turned out to be highly charged politically, twisted and turned to suit the interests of different groups.

(Fineman and Gabriel, 1996)

10.2.19 Rawls’ Two concepts of Rules

In his article ‘Two Concepts of Rules’, John Rawls draws a distinction between the ‘rules of practice’, and rules that are merely maxims. A rule serving as the latter type summarizes findings from the past concerned with the function of some general choice-supporting consideration to a particular case in point. The use of such a maxim presupposes choice-supporting considerations and cases that are logically prior to the rule, and therefore can be described without reference to it. In this way, the correctness of the rule is open to (re)consideration, providing the opportunity to question whether or not it is right and proper to follow it in any particular case. In principle then, exceptions to such a rule can always be justified by appealing directly to the underlying choice-supporting considerations.

Now, according to Rawls, the ‘rules of practice’ have an especially different status. In taking the rules of a game as his model Rawls suggests:

- (1) that such rules are logically prior to the cases to which they apply
- (2) that those who participate in the practice are not at liberty to decide for themselves on the propriety of following the rule in particular cases

The basis of the idea (1) remains that a particular type of action falling under the rules of an extant practice - for example, in the game of football, the rule that stipulates that the goalkeeper is the only player allowed to handle the ball in normal play, cannot be described as that type of action unless there was a practice already established – i.e. the game of football. However (2), whilst it may be acceptable to defend the rule itself by making an appeal to a range of considerations, the actors who play out the game simply cannot justify taking exception to the rule on any particular occasion by appealing directly to those considerations.

Rawls's concept of a practice, then, is shaped by appeal to the concept of the rules of a game. It would seem clear, however, that much of what he has to say about the priority of practice rules makes sense even when the practice is not like a game, in the ordinary sense of that term, but still marks a form of activity in which choice is understood to be rule-guided, rather than purely discretionary, in character, with respect to moral, social, political, and legal practices. In particular, even if there were no extant rules governing a case in question, one might still think of oneself as facing essentially the same options, even if one understood that a different set of considerations were pertinent to their evaluation. Moreover, and most importantly, in the case of those kinds of practice that do not in any obvious sense satisfy condition (1), we still tend to think that the extant

rules have a certain kind of priority, namely, that which is signaled by their satisfaction of condition (2) (McClennen, 1997).

My own experiences (Prison, Police and, to a lesser extent, Schools) has led me to think that those engaged in what I have termed rule-bound systems, do not make or draw the same distinctions as Rawls despite the fact that they may be extant in philosophical terms. For them the two concepts of rules - rules of practice and maxims - are in fact one and the same in their organizational reality. Alternatively, they can be evoked as such whenever the prevailing circumstances make it convenient to do so.

10.2.20 Written rules of conduct may conflict with unwritten rules

This is apparent in the normal breaking/bending/streamlining of the rules/practices as part of everyday work practices in order to achieve daily tasks. Recently there has been increased attention paid to the behaviour of those who call themselves professionals in respect to the above. That which constitutes 'acceptable' professional conduct integrates the expectations of a number of groups affected by the deeds of professionals. At any particular point in time that which is considered to be acceptable constitutes an equilibrium amongst the expectations of these groups. Neale (1996) argues that any shifts in the expectations of any of these groups will upset this equilibrium:

This process of disequilibria and change leads to altered views of professional behaviour. Professional misconduct or unprofessional behaviour, that is, the failure to meet expectations, is inherent in the underlying framework of a profession. The framework is applied to

the public (chartered) accounting profession, where the interacting groups are accounting professionals, their clients and the general public. Current issues of debate about professional behaviour are identifiable as consequences of altered expectations about acceptable behaviour. Acceptable conduct has become misconduct (and vice versa) and written rules of conduct conflict with unwritten rules.

(Neale, 1996).

10.3 Conclusion

There are two basic views of rules, firstly, that they are mechanical and, secondly that they are more organic in nature. In the extreme application of the first view (for example working to rule), the mechanistic interpretation of rules typically produces the opposite effect of that intended in the first instance – i.e. ‘de-organizedness’ (Bogdanov, 1996), less than the sum of its parts. Whereas, the second view of rules, the dynamic interpretation of rules, potentially at least, provides the possibility for what Bogdanov termed ‘organizedness’ (Bogdanov, 1996) – i.e. more than the sum of its parts. With all the possibilities for what it is that constitutes a rule and all the possible ways to view the rules themselves, it is little wonder that once aggregated together the likelihood of them counteracting each other increases dramatically.

11 Rule-bound Systems

It may be useful to begin this section by providing a definition the term 'bound' when used to describe the ideal type of system in question. Firstly, it describes the elements of the system as bound together by rules, that is, that their relationships to each other, and their actions towards and for each other are formed and structured by rules. In formal organizations we can usually see a clearly defined relationship between the members of the organization - there are the rulers and the ruled; status, ranks and different levels of power and authority can be identified. Rules exist to regulate the ways in which the members of the organization can or may communicate with each other; expected types of behaviour exist, and often written instructions on how tasks are to be performed (or not to be performed) are issued to members (Evans, 1990).

Secondly, it suggests that the system's performance is *constrained* by rules. According to Evans (1990), Merton argues that bureaucracy begins with a demand for control by the top manager. Behaviour must be reliable and consistent. This leads to:

1. A reduction in personal relationships.
2. Rules originally designed as means to an end become ends in themselves.
3. Decisions are taken on the basis of the rules - which are relatively few - this limits the number of choices of action available, and eliminates, on the whole, any search for new ways of tackling problems.
4. A rigidity of behaviour.

(Evans, 1990)

I shall use the term to simultaneously encompass both the former and latter senses.

I am using the term 'rules' throughout in a broad way to include both the formal and informal; to include, for example, Acts of Parliament, Government guidelines, standing orders, codes of practice, professional ethics, manuals of procedure, traditional practices, norms, and 'The way we do things round here', etc (see for example, Clegg, 1981).

11.1 Characteristics of rule-bound systems

Whilst much has been said about the technical efficacy (or otherwise) of bureaucracies (e.g., Weber, 1947; Adler and Borys, 1996), my investigations suggest the emergence of a new organizational phenomenon which has few of the positive aspects of bureaucracy and in which many of the negative factors seem to be exacerbated. Such an organization can be said to be 'rule-bound' since the elements of the system are bound together by the rules of the institution, and of the people in the institution, which define both the possible relationships and the nature and scope of interactions between different actors within the organization. Furthermore, the notion of rule-boundedness suggests that the organization's performance is constrained by these rules. So, I shall continue to use the term in both senses.

It should be noted that the senses in which I am using the notion of rules is far wider than the usual formalization that written rules, instructions and procedures

affords an organization. It is these written, or codified rules that Pugh and Hickson (1976) focus on in their research into organizational structures, and that Adler and Borys (1996) elaborate on in their discussion of organizational technologies used to bring formalization into an organization. Instead, I am as much concerned with 'the way things are done around here', the unspoken norms and codes of practice that guide and influence people's perceptions of what can and cannot be done in a workplace. I have experienced the application of these in every organization of which I have been a part of, or interacted with, and it seems to me that they have the same effect as more formal rules and are therefore deserving of the same name.

I will not be suggesting that the entire organization is rule-bound, as I follow contingency theorists (e.g., Lawrence and Lorsch, 1969) who argue that specific sub-sections of an organization may exhibit some features of (for example) an organic organization, whilst other sub-sections might exhibit quite different behaviours, those representative of mechanistic organizations. Here, I shall suggest that some problem situations (which may cut across several sub-sections or departments of an organization) appear to be constrained by the mind-sets of the actors within them who exhibit rule-bound behaviours. It is these situations that I am calling rule-bound systems, and they generally involve:

- people who subscribe to some higher level interests determined outside their sphere of influence, but without necessarily sharing other aspects of the higher level viewpoint;
- people whose values and beliefs are likely to conflict;

- a view that both means and ends are outside the sphere of influence of the actors, making compromise apparent rather than 'real';
- a sub-set of all actors are able to make decisions that are 'legitimated' by the rules and thus accepted by others; and
- people who act in accordance with 'given' objectives, with no process recognized as being able to effect a 'genuine' agreement under present systemic arrangements.

How do rule-bound systems differ from other problem contexts? Since I am suggesting that rule-boundedness is a result of both formal and informal relationships and interactions between participants of a system, I can compare such a situation with three other dimensions of participant relationships drawn from the systems literature. Following Jackson (1987), Flood and Jackson (1991b) indicate that participants may have a unitary, a pluralist or a coercive set of relationships with each other. In the unitary problem type, Flood and Jackson suggest that participants share a common view about the necessary objectives of the system. For the pluralist position, they suggest that although there are differences of opinion about potential goals, it is possible to reach a compromise or accommodation between participants. In the coercive problem type, Flood and Jackson stress the widely divergent viewpoints that result in one or another position dominating and coercing other positions into accepting their vision of things.

Superficially at least, rule-bound situations may appear to be like those that inhabit the unitary or coercive ideal type problem contexts. However, I suggest that they only *present* similar characteristics. Closer inspection reveals very different qualities. For example, unlike Flood and Jackson's coercive problem contexts where different groups may seek to use whatever power they have to impose their favoured strategy upon others, in a rule-bound problem context who has the final say is externally determined by the rules governing the system's arena of action. In addition, meta-level interests, or indeed a recognition of the interconnectedness of the elements within any given situation, prevent the unqualified subjugation of others. Unlike Flood and Jackson's unitary problem contexts, where participants act in accordance with agreed objectives, rule-bound systems only present a unified front: the rules defining the system's arena of action, generated externally, determine that participants act in accordance with 'given' objectives, creating an illusion of unitary functioning.

Although Flood and Jackson's typology of participant relationships appears useful as a comparator for a rule-bound situation, I prefer to go beyond their work by comparing rule-bound systems with a more recent extension of Lukes (1974) analysis of the dimensions of power (Hardy and Leiba-O'Sullivan, 1998). Whilst Lukes' work was intended to identify dimensions of power at play within society, Hardy and Leiba-O'Sullivan have used it to point to conceptions of power that have underpinned a great deal of management and organizational research. I will show later that an understanding of this more recent categorisation of power relations is important in explaining some of the difficulties that get in the way of successfully intervening in rule-bound systems.

Although Lukes identified three dimensions of power (overt, covert and latent), Hardy and Leiba-O'Sullivan suggest that this should be extended to incorporate a fourth dimension in which, although:

some actors may derive certain advantages from the power relations embedded in the system, they can neither control them nor escape them.

(Hardy and Leiba-O'Sullivan, 1998)

This is an extremely important point, as it recognizes the inevitability of the persistence of power relationships, whilst Lukes' three dimensions do not. Instead, even in Lukes' third dimension there is a sovereign actor who can influence and challenge what might be seen as illegitimate power relationships. Hardy and Leiba-O'Sullivan draw on the work of Foucault (1977, 1980, 1982, 1984) and other writers who have applied his work to studies of organizations (see Hardy and Leiba-O'Sullivan for an extensive list). By drawing on Foucault, they are able to show that power is not such a manipulable resource as seems to be suggested by Lukes, and as is implied by Flood and Jackson's typology of participants' relationships. I am proposing that Flood and Jackson's typology must be extended to include rule-bound participant relationships in order to accommodate situations in which actors do indeed 'derive advantages from the power relations embedded in the system' and yet are not able to either control or escape them: they are equally caught in the network of power - the rule-bound system. However, it is clear that Rule-bound systems do share some similarities with these other contexts. It can be argued that they bridge the gap between the unitary and coercive problem contexts, enabling the system of systems

methodologies to be perceived as though it were cylindrical in complexion as I will later demonstrate.

11.2 Rule-bound Systems and Bureaucracies

Rule-bound systems are not simply the same as bureaucracies, as stated earlier. They can be perceived as encompassing a single element (e.g., a single office), as an aggregation of several elements (e.g., a department), as a whole organization, or as a number of diverse organizations, such as non-profit making agencies (statutory and voluntary) and profit making organizations, brought together to tackle a particular issue (i.e., a multi-agency environment). This means that it is possible though not inevitable that a bureaucracy could also be considered as a rule-bound system.

11.3 Affecting Change in Rule-bound Systems

In a previous project carried out in a prison (See: Clayton, 1996; Clayton & Gregory, 1997a, b, 2000), many of the arguments offered throughout the discussion on specific issues were immediately discarded by reason of being against the rules. However, when challenged there was an inability to provide any evidence to the fact. For example, the request for a weekend contact point for the probation service. According to the main protagonist the rules specify that working hours are from 9 to 5, Monday to Friday. However, to the best of the knowledge of those present, nowhere does it state in the rules 'Thou shalt not supply a weekend contact point'. Unfortunately, this argument was declared null and void. People viewed the rules as delineating what is, and therefore what is not, simultaneously.

I suggest that what was happening in this instance was that the issue of no weekend cover that appeared to be a rule, at least prima facie, was being mistaken for one of a more substantive complexion. A rule that specifies what is does not in essence specify what is not, for all rules are open to interpretation. In the case of the prison the rule intended to prevent the association of young offenders with adult prisoners - to prevent 'contamination' - has been waived in order to maximise the prison listener scheme. Despite this it was still this very belief in the nature of rules and their reification that was restricting current thinking and the accession of more creative management strategies. The overarching view of those present was that the rules by which they operate are fixed, as if cast in stone, and hence, well beyond their own limited sphere of influence.

11.3.1 The Governmental Politics Model

I am including a short review of the Government and Politics Model here in relation to rule-bound systems because certain parallels can be drawn between them. Ultimately, the Governmental (or Bureaucratic) Politics Model sees the output of the organizational process, that is decisions and actions, not as rational choices but as political results. What transpires is not chosen as a resolution to a problem. On the contrary, decisions and actions emanate from compromise, conflict, and an obscurity of confusion, born of diverse concerns and asymmetric influence (Allison, 1971) - they are in sum and substance 'political'.

The position/role of any actor defines what it is that they must do, and also what it is that they may do. In addition, it determines the advantages and disadvantages, or handicaps that may have to be met with head-on. Knowledge of a particular

position is often sufficient to predict, with a reasonable degree of accuracy, how any individual who fills it may stand on the following questions:

What is the issue?

What must be done?

This is because the answers to these questions are endowed with colour by the position from which the questions are deliberated (Allison, 1971). If position colours the answers to these questions, what about the goals and interests of the actors?

Firstly, in the problem situation of Hull prison (see Clayton, 1996; Clayton & Gregory, 1997a, 1997b, 2000), if we consider the individual as the actor, it is possible to perceive - using the three levels of systems concept which can be described as: a narrower system of interest, the system in focus and, a wider system of focus (Flood, 1995) - that the goals and interests that interplay are: the personal goals and interests of the individual, the goals and interests of the individual's own agency, and the goals and interests of the Prison as a whole - in other words, the goals and interests at the individual, organizational, and supra-organizational levels. The same logic when applied to the agencies involved would see interdependent goals and interests at the agency, Hull prison, and the Yorkshire Area levels. Which level takes precedence at any given time will be contingent upon the circumstances and the degree of power available to influence events.

Power plays a notable part in the model. It is argued that power depends on three elements: bargaining advantages, the level of skill attained in their deployment, and the perceptions of others regarding those skills and advantages. However, power can, in some situations, be emasculated by circumstance. Events and deadlines can create an irresistible momentum that compels actors to assume a particular stance on any issues raised. In any event the rules will substantially define the arena in which the political events unfurl.

These rules originate from a number of sources. Some are formal, unlike others that remain informal in their nature. The rules that define the unfolding of events at the prison arise from the melee of: standing orders, manuals of procedure, codes of practice, professional ethics, traditional practices, and the culture of the organization - 'the way we do things around here'. Rules exhibit certain characteristics, some are quite explicit, whilst others remain entirely implicit. Some rules remain fixed over time, others are more ephemeral, certain rules are clear, unequivocal, yet in direct contrast some rules are unclear and indistinct. Nevertheless, it is the collection of rules that, essentially, defines the arena of action (Allison, 1971).

In the end the resultant action is a creation of political activity that sees each individual:

...pulling and hauling with all the power at his [sic] discretion for outcomes that will advance his [sic] own conceptions of organizational, group, and personal interests

(Allison, 1971)

Figure 13 is a diagrammatic representation of the main factors that influence the emergence of the resultant action.

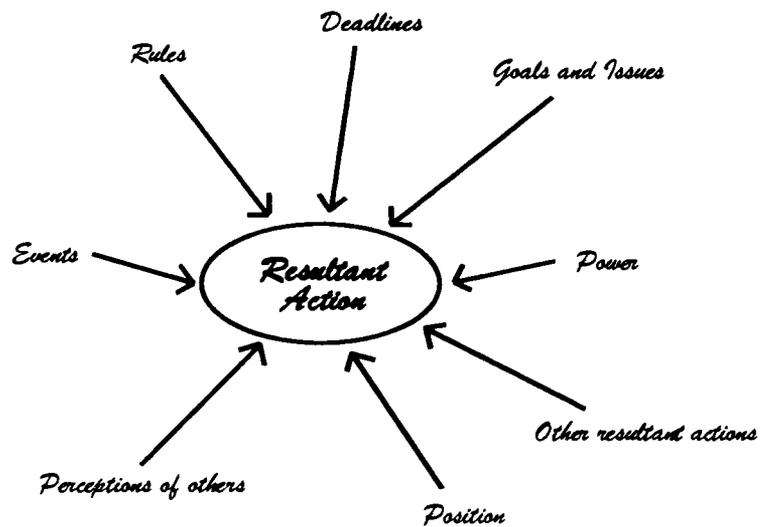


Figure 13 - The main factors that influence the emergence of the resultant action

In this same way, the rules which shape organizations are not merely the decree of those actors who hold official management status within those organizations. These ‘rules’, just as with the ‘outcomes’ of the Government and Politics Model are in themselves ‘resultants’ of, to a greater or lesser extent, negotiated outcomes.

11.3.2 Interacting frameworks of rules

Taking the wider definition of what it is that constitutes the ‘rules’ means that we are all operating within an aggregation of rules, not just from our work life but also from other areas of our life. The ethos created by some will be identical, others may be complementary, whilst others down right contradictory. For instance, that which is often termed the ‘golden rule’ of religion - do unto others as you would have them do unto you – can easily be seen as contradictory to that which may apply in some business environments - ‘win at all costs!’

This resultant framework of ‘rules’ under which we all operate can be represented thus –see Figure 14:

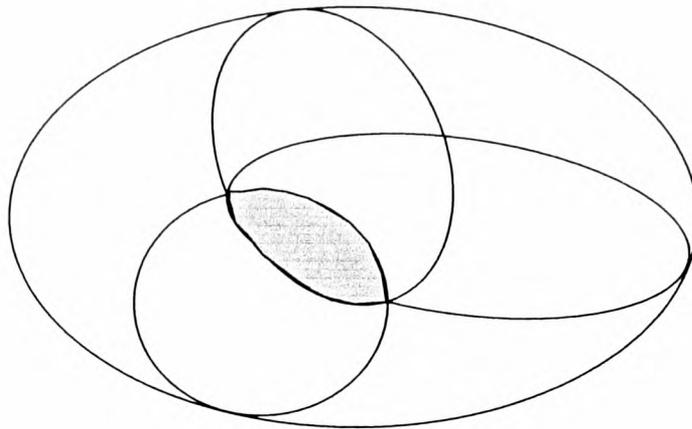


Figure 14 – An individuals framework of rules

Each element represents a different facet that influences the individuals life that is shaped by its respective framework of rules. Contained within the outer boundary that is the meta-rules (for example, the ten commandments and /or gender rules). The grey area represents the region of ‘congruence’. The shape of this zone of congruence is liable to change over time as the ‘rules’ are (re)interpreted and (re)enacted in response to the daily experiences of life.

This idea is recursive so at the level of the group or organization the elements represent the individuals ‘rule-space’, together they make up the group/organization ‘rule-space’, and the grey area now represents the degree of congruence between the individual frameworks. So, it follows that at the level of multi-agency/interagency/partnership the grey area represents the congruence between the rules that govern each separate agency.

That is not to say that it is inevitable that the congruence zone will grow smaller as the level of analysis rises and the resultant aggregation becomes seemingly more complex. The shape of the zone is after all determined by the actors who can come to some accommodation, thus determining for themselves the shape of the congruence zone and, therefore, the framework of rule that will guide/shape their interactions.

I would suggest that in a rule-bound system the congruence zone has become fixed in its shape, and its boundary has become impervious. One of the tasks of anyone wishing to affect change in any situation perceived to be rule-bound must be the suspension of the protocols that perpetuates the maintenance of the boundary of the congruence zone in its current form, re-establishing flexibility by suspending the rules, thus, enabling adaptability and changing the basis of relationships so as to deal with one issue or a series of complex issues.

12 A New Ideal Type

12.1 Introduction

The genesis of this section dates back to a conversation I had with Peter Dudley at the Centre for Systems Studies in the mid-90's. The central point of debate was Peter's notion that the representation of the System of Systems Methodologies through an essentially two-dimensional medium, i.e. on the printed page, did not reflect accurately the 'true' complexion of the principle of 'ideal-types' (Dudley, 1996), just as in the same way a printed map of the world does not at first glance 'truly' reflect the close proximity of the United States of America and the old USSR.

Peter argued that the arrangement of 'ideal types' that constitute the System of Systems Methodologies should not be regarded as a flat, for want of a better description, 'bi-polar' model with its range along the 'participants' dimension starting with unitary and culminating in coercive relationships between participants. Rather, it should be conceived of as cylindrical in its complexion. This argument is founded on the premise that 'perfect' coercion equals 'unity'. The result of 'perfect' coercion would be the rise of a 'unitary' relationship between participants without any realisation whatsoever that coercive forces had ever been at work. The System of Systems Methodologies therefore, would be represented thus: see Figure 15.

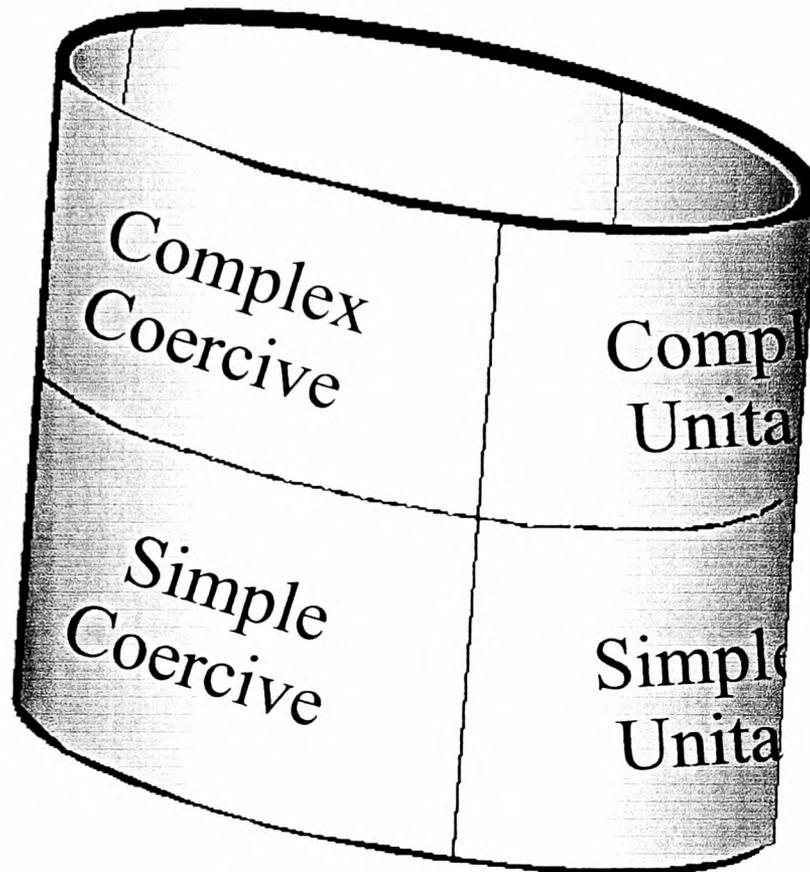


Figure 15 - Grid of Ideal problem contexts as a Cylinder

12.2 How do rule-bound problem contexts differ from other ideal problem contexts?

Superficially at least, rule-bound systems may appear to be like those that might inhabit the unitary or coercive ideal type problem contexts, however, they only *present* similar characteristics. Closer inspection will reveal very different qualities. For example, unlike coercive problem contexts where different groups may seek to use whatever power they have to impose their favoured strategy upon others, in a rule-bound problem context who has the final say is determined by the rules governing the system's arena of action. In addition meta-level interests or

indeed a recognition of the interconnectedness of the elements within any given situation prevents the unqualified subjugation of others. Unlike unitary problem contexts where participants act in accordance with agreed objectives, rule-bound systems only *present* a unified front, the rules defining the system's arena of action determine that participants act in accordance with 'given' objectives creating an illusion of unitary functioning. However, it is clear that rule-bound systems do share some similarities with these other contexts. It can be argued that they bridge the gap between the unitary and coercive problem contexts, enabling the system of systems methodologies to be perceived as though it were cylindrical in complexion, replacing the earlier argument for 'perfect' coercion put forward by Dudley (1996) – see Figures 16 and 17 below.

	Unitary	Pluralist	Coercive	Rule-bound
Simple	Simple Unitary	Simple Pluralist	Simple Coercive	Simple Rule-bound
Complex	Complex Unitary	Complex Pluralist	Complex Coercive	Complex Rule-bound

Figure 16 - Extended Grid of Ideal problem contexts

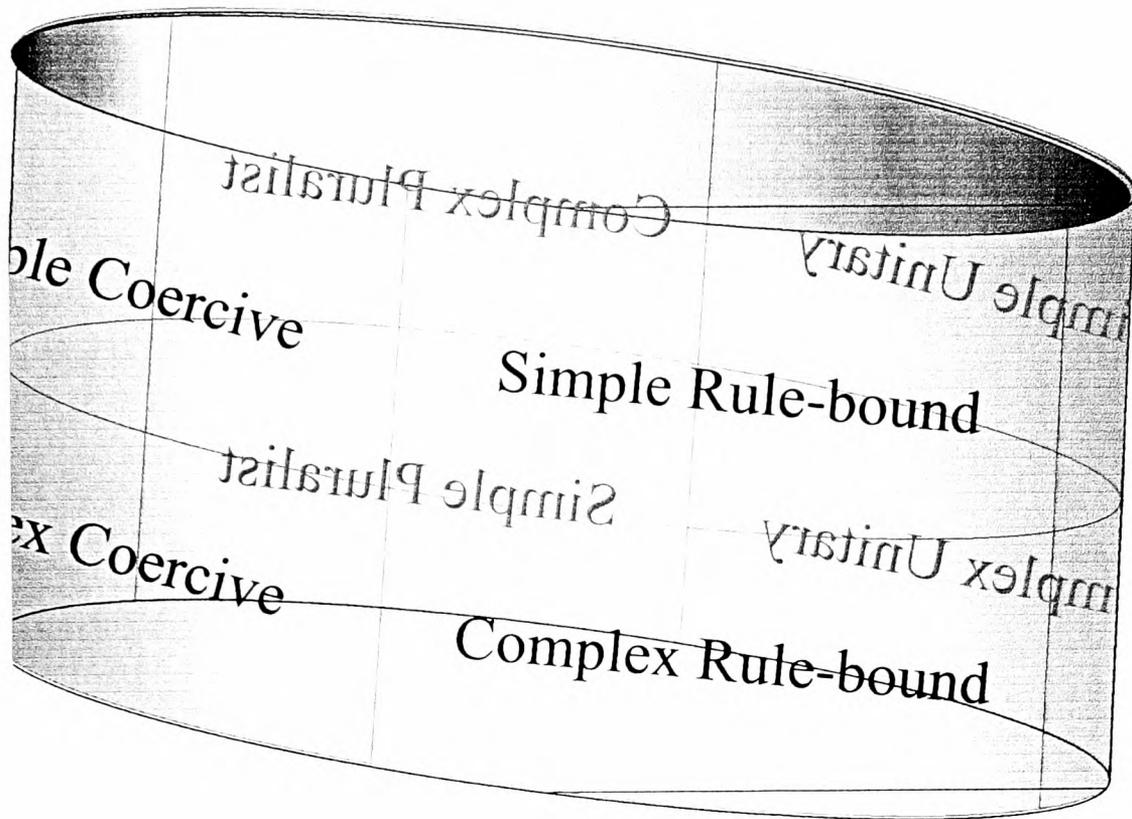


Figure 17 - Extended Grid of Ideal problem contexts as a cylinder

The relationships between participants in an ‘ideal type’ rule-bound system can be defined as follows:

Rule-bound:

- they may subscribe to some meta-level interests determined outside their sphere of influence, but they do not share common interests per se
- their values and beliefs are likely to conflict
- both means and ends are considered to be outside their sphere of influence, making compromise apparent rather than ‘real’
- some make decisions that are ‘legitimated’ by the rules and thus accepted by others
- they act in accordance with ‘given’ objectives, therefore no ‘genuine’ agreement is possible under present systemic arrangements

Conceptualising the grid of problem contexts and the System of Systems Methodologies in this way lead to further developments in my own thinking about the subject. Thus, having considered the ‘participants’ dimension as a loop, rather than a ‘bi-polar continuum’, attention was turned to the ‘systems’ dimension and the complexity of human activity systems.

12.3 Complexity in Human Systems

Predominantly, complexity is regarded as an unknowable, a for the most part undifferentiated condition that organizational theorists refer to as ambiguity or uncertainty. Concerned with the product of a multiplicity of interactions, deficiencies in knowledge concerning cause and effect, unforeseen events, counterintuitive behaviour and such like, many models treat complexity as a random force. It is true that complex system outcomes cannot easily be predetermined, yet there is without doubt a discernable sense of the predictable about them.

(Marion, 1999)

Organizations can be perceived as (human) complex adaptive systems
(Lewin, 1998).

Organisations have been described as ‘chaotic’ and/or ‘complex’ for centuries. There were even those (there always are) who went so far as to say that chaos and complexity are intrinsic properties of many organisations.

(Mahon, 1999)

In general we seem to associate complexity with anything we find difficult to understand.

(Flood and Carson, 1988)

Flood and Carson (1988) point out that such a proposition carries with it two clues to the essence of complexity in human activity systems. The first of these clues is without doubt 'we' – complexity is associated with us, human actors. Second, is the clue 'anything' – complexity is also associated with things (objects, thoughts, situations, abstractions of the world - systems). And, even the most 'concrete' and mundane of things can be seen from a multiplicity of perspectives - see Figure 18.

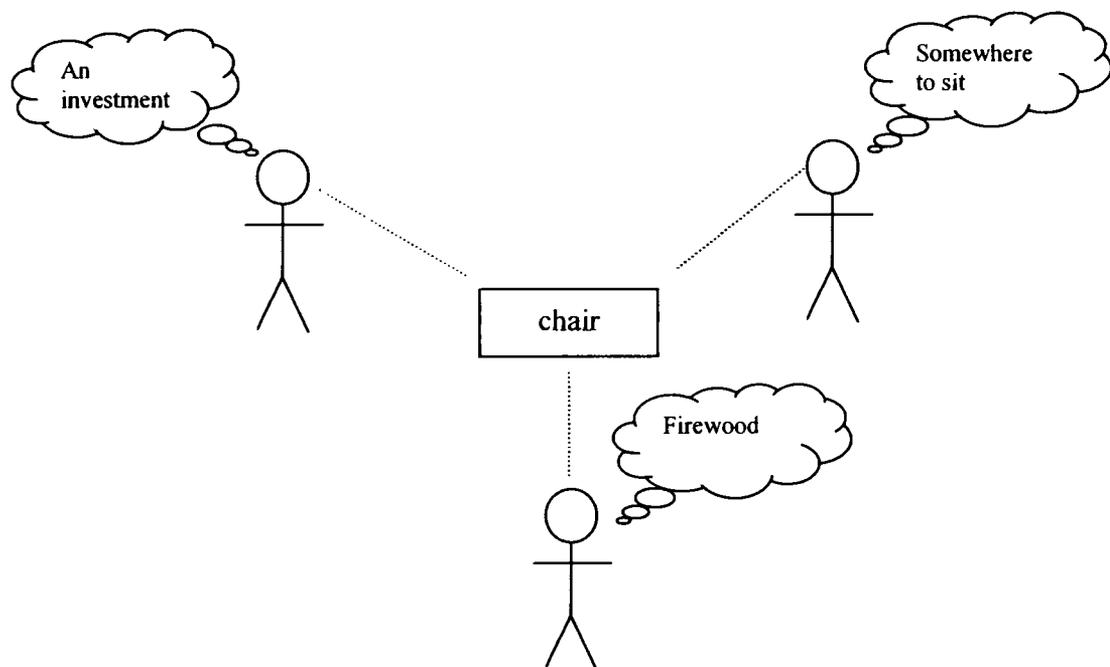


Figure 18 - Multiplicity of perspectives

The following are 'commonsense' definitions of complexity from *Webster's Third International Dictionary*, noted by Klir (1985):

1. Having many varied interrelated parts, patterns, or elements and consequently hard to understand fully
2. Being marked by an involvement of many parts, aspects, details, notions, and necessitating earnest study or examination to understand or cope with

So, in addition to the notion that systems are situations perceived by people, these definitions mean that the number of parts, the number of relationships between the parts, and notion/perceptions need also to be included (Flood and Carson, 1988).

Flood (1987), provides a summary in diagrammatic form. See Figure 19.

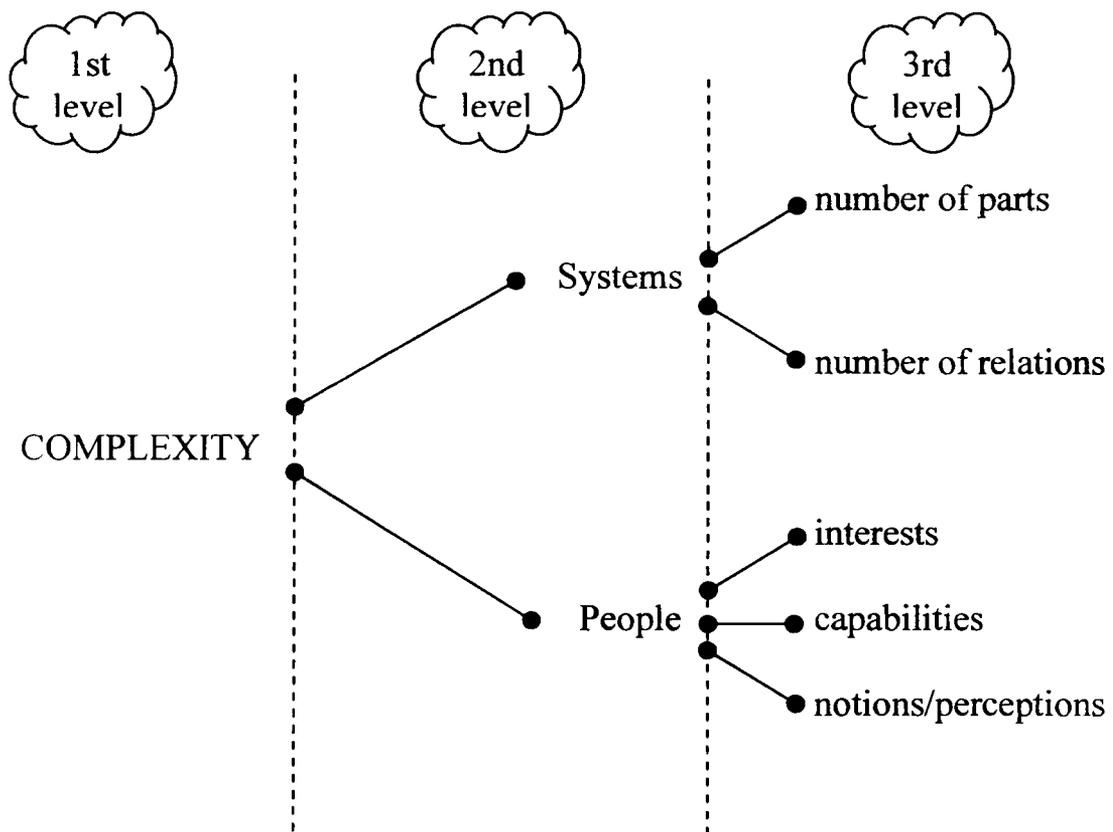


Figure 19 - Three levels of complexity

The interesting part of the above diagram for present purposes is the third level. Complexity along the systems branch is concerned with a growth in the number of parts, the number of relationships and possible states. See figure 20 (Flood, 1987), where (e) are elements, (r) are relationships and (s) are states as a measure of complexity.

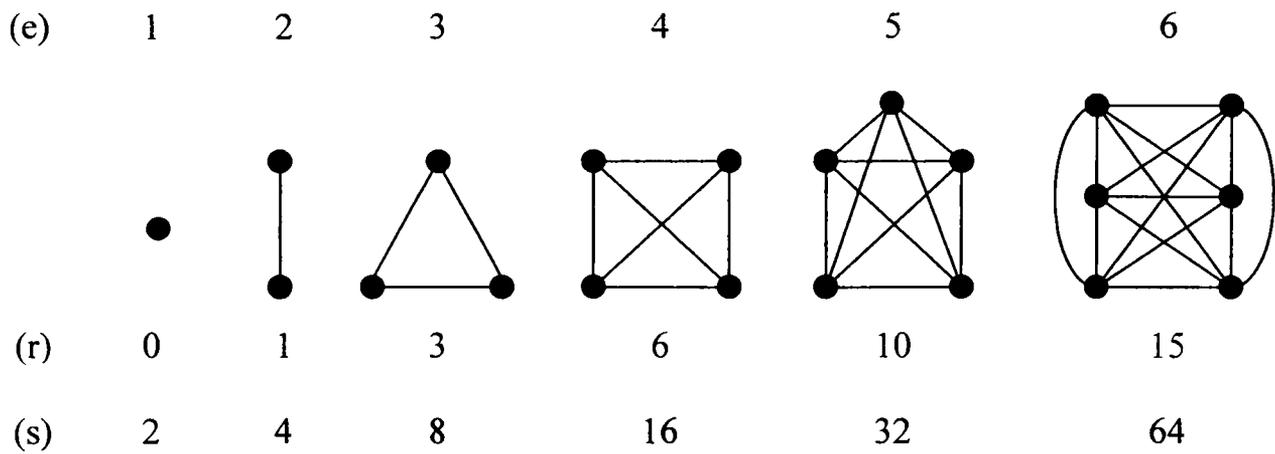


Figure 20 - Mathematical Complexity

However, this describes complexity in a mathematical and abstract sense. Complexity along the people branch is an entirely different prospect. Systems are abstractions of real world situations as perceived by people, and so interests and capabilities can also have a profound affect on perceived complexity. Flood and Carson (1988) provide the following regarding the idea that complexity can be directly related to an individual's interests – as highlighted by Ashby (1973), and noted by Klir (1985), when he stated that:

to the neurophysiologist the brain, as a feltwork of fibres and a soup of enzymes, is certainly complex; and equally the transmission of a detailed description of it would require much time. To a butcher the brain is simple, for he has to distinguish it from only about thirty other 'meats'

Presumably, the same is true of aggregations of individuals such as groups and organizations etc.

In addition, individuals are an intricate mixture of multifarious factors (for example, knowledge, intellectual capacity, even mood) with one or more having some bearing on their responses to any given situation. It can be further argued that the same is true over time. On any one day an individual's behaviour may be particularly staid and predictable, on another day in what appears to be circumstances not at all dissimilar, that very same individual's behaviour may appear somewhat less predictable - if not down right counterintuitive. More formally then, human actors are within themselves generators and conduits of infinite variety. Variety can be defined as the number of possible states a 'system' is capable of exhibiting (Ashby, 1956) - it is, therefore, a measure of complexity (Jackson, 2000).

So, when human actors are introduced: where (h) are human actors, (r) are relationships and (s) are states as a measure of complexity – see figure 21, the use of the word simple to describe participant relationships in human activity systems is quite simply counterfactual.

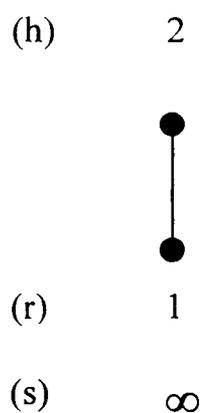


Figure 21 - A measure of complexity

No relationships between individuals are ever that simple. However, it should be noted that there must be some ‘stability’ around possible interactions otherwise we wouldn’t be able to drive cars, or do other things that rely on people behaving in very specific ways. Interactions also take place against a backdrop containing a multiplicity of influencing factors. Human actors are themselves beings of infinite variety.

So, the use of the term ‘simple’ to describe the ‘ideal types’ that constitute the System of Systems Methodologies should be viewed in the same way as the oft misunderstood Theory X Theory Y. As far as I am aware McGregor never said that all workers are either lazy and need to be constantly supervised or self-motivated. He actually purported that managers treated them that way. So, in this case situations themselves are not simple, we simply treat them as such. The point is that the System of Systems Methodologies is constructed on the *assumptions* made about the problem situation not in fact the actuality of that situation.

Langston described complexity as shown in figure 22. A system, shown as the large ellipse, emerges from the interactions of individual units, represented as small circles. These individual units are driven by local rules and are not globally coordinated. Actors are for the most part guided by local interests and enjoy a restricted understanding of the ‘big picture’. They interact in some way and because of the dynamics of interaction among these individuals, a system emerges (Marion, 1999). The arrows from the emergent system indicate a commanding influence on the behaviour of individual units exerted by the system.

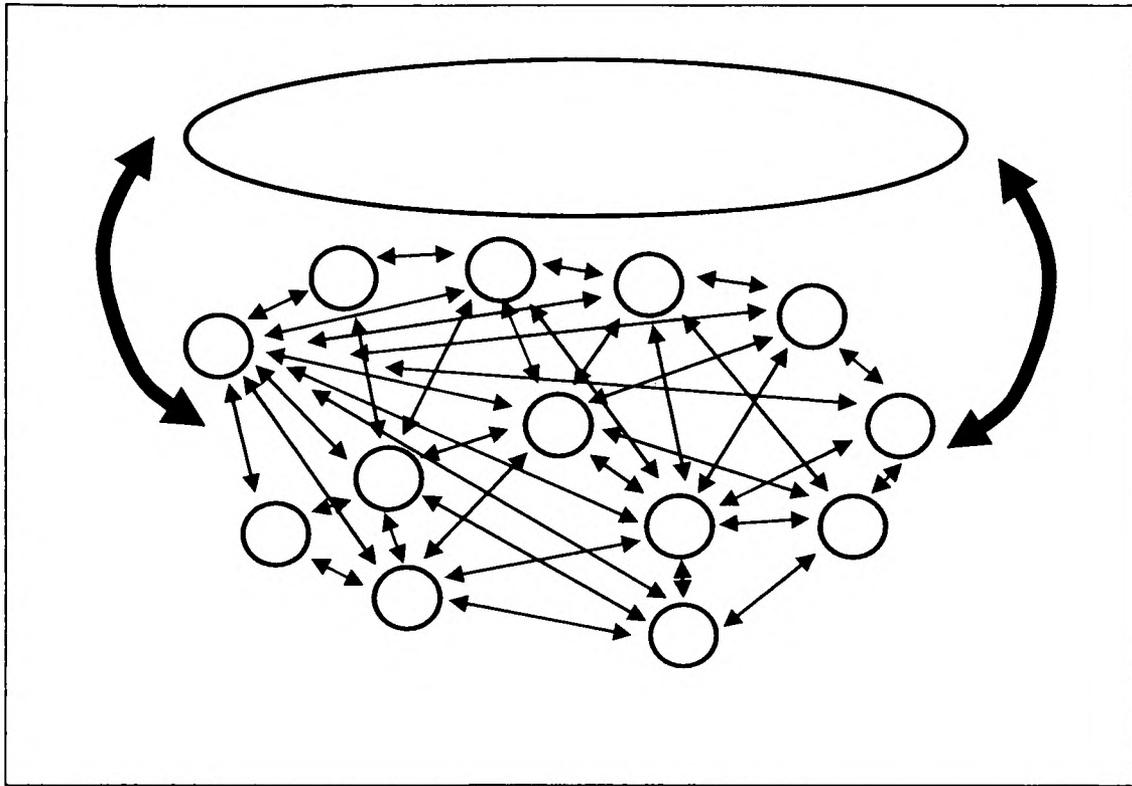


Figure 22 - Langston's depiction of complexity (1992)

Weaver (1948) identified three bands of complexity: organized simplicity, organized complexity, and disorganized complexity. As you can see from Figure 23, the organized bands of simplicity and complexity are slender and make up the two extremities of Weaver's scale.



Figure 23 - Weavers three bands of complexity

Organized simplicity occurs when a small number of significant factors are concealed amidst a larger number of insignificant factors. Thus creating initial impressions of complexity. However, upon further investigation a hidden simplicity will be revealed. According to Klir (1985), early scientific discoveries of the 17th, 18th, and 19th centuries typify this type of discovery. Whereas, disorganized complexity is said to be present where situations are characterized by numerous variables exhibiting a high level of random behaviour. The behaviour of gas molecules is an exemplar of such complexity (Klir, 1985).

It is said that organized simplicity and disorganized complexity have one thing in common: they are both highly quantifiable - organized simplicity, through analytic mathematics, focussed on specific elements, and disorganized complexity via statistical analysis, for example averages based on the properties of many variables.

Interestingly, the mathematics employed above can be conceived of as analogy, and therefore a metaphor in itself:

Mathematical descriptions of nature are not fundamental truths about the world, but models. There are good models and bad models and indifferent models, and what you use depends on the purposes for which you use it and the range of phenomena which you want to understand...reductionist rhetoric...claims a degree of correspondence between deep underlying rules and reality that is never justified by any actual calculation or experiment.

(Cohen and Stewart, 1995)

Mathematics is also seen by many as an analogy. But it is implicitly assumed to be the analogy which never breaks down.

(Barrow, 1992)

Sandwiched between these two extremities of the scale is organized complexity:

Instances of systems with characteristics of organized complexity are abundant, particularly in life, behavioural, social, and environmental sciences, as well as in applied fields such as modern technology or medicine.

(Klir, 1985)

For Flood and Carson (1988), a certain richness is representative of such situations, a richness that must not be oversimplified but likewise cannot be adequately dealt with by the application of techniques that work effectively on a large degree of randomness.

12.3.1 What I think happens!

Early on in our investigations, where speed is of the essence or where we lack the required problem solving skills or knowledge, we may, quite necessarily so, treat a human activity systems under investigation as if it were in actuality 'simple'.

In other words we employ a definition of the system to suit our current purposes. An aspect relating to complexity which may be conveniently called the 'width of agenda' (Loasby, 1976) - a term adapted from Boulding (1966).

As Boulding (1966) points out:

there seems to be a fundamental disposition in mankind to limit agenda, often quite arbitrarily, perhaps because of our fear of information overload

Johnson and Bruce (1994) furnish us with an overview of several studies, from the cognitive psychology literature, which offer analyses of decision-making in complex environments – this section follows their review. In this instance a complex decision-making environment can be defined as one where ‘the decision-relevant information approaches the limits of the decision-maker’s cognitive capacity’ (Johnson and Bruce, 1994). Challenges to the decision-maker’s capacity may take the form of effects linked to the volume of information, turbulence of the information set and heterogeneity of the information relevant to the decision task and/or point in question. Efforts in relation to each of these quarters has been aimed at understanding decision-makers responses to these various types of complexity, investigating the cognitive processes they use, the simplifying strategies they utilize, and also the types of error that may ensue as a result. Johnson and Bruce (1994) suggest that each of these aspects of complexity challenges the rationalist notion of information as an asset when dealing with uncertainty, pointing out Etzioni (1985) who notes:

Rationalist models of decision-making assume very high capacity of the actors to collect information, to process it, and to draw proper conclusions from the information and its interpretation.

(Etzioni, 1985)

There is empirical research (Onken, Hastie and Revelle, 1985; Sundstroem, 1989) that provides verification of the suggestion that as the burden of information increases, the actual amount of information considered as a basis for any decision made decreases. Simplifying strategies based on heuristics, bias and ‘irrational’ premises, appear to be employed as a means of dealing with the complexity

emerging from information volume (see, Kahneman, Slovic and Tversky, 1982; Agnew and Brown, 1986; Keren and Wagenaar, 1985). These strategies may for example involve the dismissal of alternatives without full appraisal (see, for example, Onken *et al*, 1985). There has been a suggestion that overload brings about the need for simplification and that as a consequence, heuristics, and biases (in their role as simplifying mechanisms) are likely to be more prevalent under circumstances of information overload (Abelson and Levi, 1985). This propensity to use fewer attributes in the evaluation of alternatives combined with an increasing tendency toward the employment of elimination strategies as the number of alternatives increases, is reaffirmed by Timmermans (1993). Eiser and van de Pligt (1988), conclude:

individuals tend to use simpler and less optimal choice rules as the information load increases. Usually accuracy declines considerably when the number of features or the number of alternatives increases

(Eiser and van de Pligt,1988)

According to Johnson and Bruce (1994), the turbulence of information has for the most part been explored in terms of its impact in '*dynamic* [their emphasis] decision-making contexts', contexts where rapidly changing information engenders a developing scenario within which decisions are required. They refer to Brehmer (1992) whose observations include a variety of effects, perhaps most notably an incapacity to discriminate between more and less efficient response strategies as complexity increases.

Work focusing on the behaviour of decision-makers engaged with complexity, comprising a whole range of distinct problem types, qualitative in nature, has been carried out by Doerner (1980). Primarily, difficulties arise due to an ‘unsophisticated awareness’ of shifting conditions over time, difficulties in recognizing situations which develop exponentially, and problems identifying non-linear causality or ‘spin-off’ effects (Johnson and Bruce, 1994). Johnson and Bruce (1994), by way of noting the difficulties encountered where information is both turbulent and diverse, state that:

...when there are many cues or unusual relationships between the cues, people tend to violate (rational) decision rules.

Johnson and Bruce (1994)

Another reason for us to proceed as if a situation were actually simple may be when we have to tackle complexity on our own. As humans it is clear from the above that we have limited capacities when it comes to receiving and processing information. It is also clear that complex problems have to be shared since it is impossible for any one individual to cope with them adequately (Loasby, 1976). However, for many reasons not least of necessity, ‘political’ gain, or simply our own vanity, we may have no choice but to face complexity alone.

So, branding elements we find difficult to engage with as ‘insignificant’, disregarding them in favour of a limited number of ‘significant’ more easily manageable elements, offers us only limited understanding and therefore restricted abilities to make improvements. The outcome of the inquiry then leaves us in the zone of limited understanding – see figure 24. This leads us to the

eventuality that many problematic situations are managed with scant regard to their ramifications. However, one truism cannot simply be disregarded as out of hand, that is, in dealing with complexity, ignorance can be very helpful (Loasby, 1976).

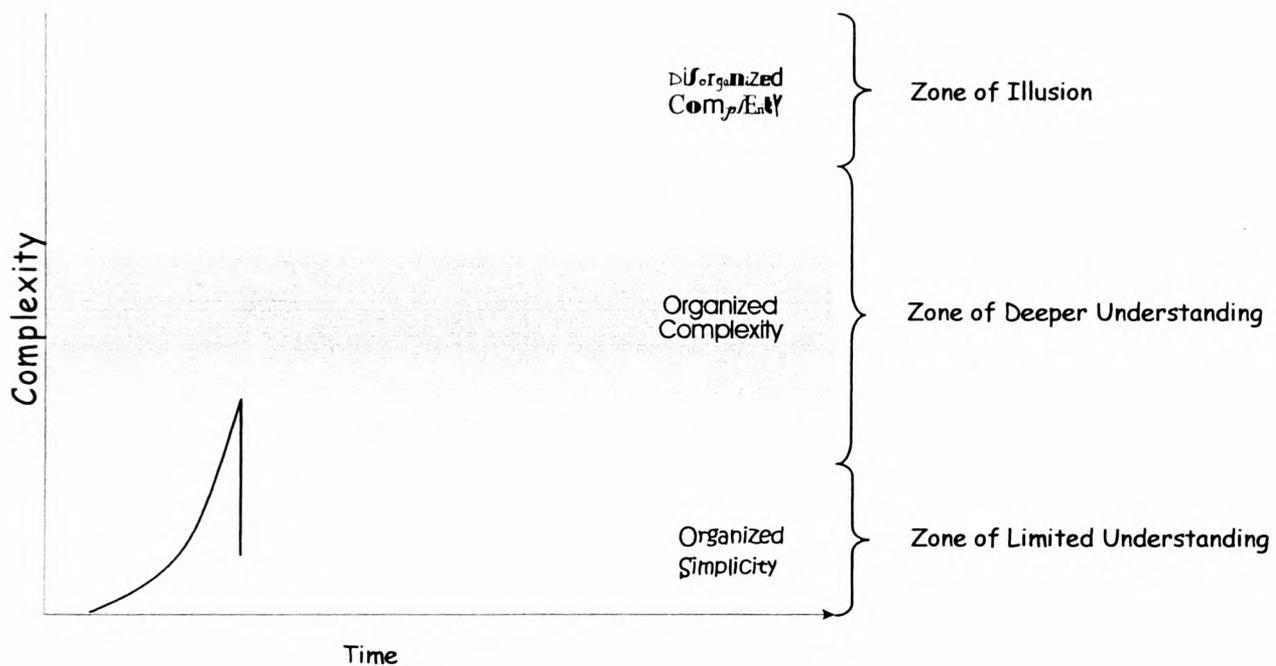


Figure 24 - Process of inquiry when time is short or capacity is low

Given time to investigate further, and armed with the necessary skills and knowledge, we may begin to uncover some of the systems complexities and unique character - providing us with a deeper understanding. So, we begin to enter the zone of deeper understanding. However, we may not remain in the zone very long.

It may be that due to time pressures or our inability to cope with the organized complexity of the system under investigation, that we then choose to apply the quasi-scientific tools and methods of aggregation (e.g., statistical analysis). On

the one hand this can lead to an understanding lodged in the zone of illusion, where we are fooling ourselves into believing that we have a handle on that which we are investigating.

For example, as part of the practical aspect of my research I was treated to an anecdotal explanation of a sophisticated statistical analysis recently undertaken at one of the participating schools. Put succinctly, the analysis of pupil achievement, development records and self reporting questionnaires was designed to identify each students' strengths in terms of key skills, in order that future educational efforts could be aimed at maximising a students' potential by developing further their individual talents. This was rather than focusing attention entirely on their weaknesses as is normally the case. The individual reporting the story recalled how one particular student had been identified as having tremendous abilities and interest in areas concerning foreign languages and other cultures – particularly oriental cultures and specifically Chinese culture. The analysis revealed a marked difference in ability when compared with the students' record in other academic areas. Thus, this particular result of the analysis was heralded as a prime example of its successful application. It was not until the mask created by the 'blind' analysis had been removed that it was realised that the individual was in fact of Chinese origin. Perhaps all that had really been done is to come full circle and treated the situation as if it were actually 'simple' - a bit like treating a curve as a series of straight lines.

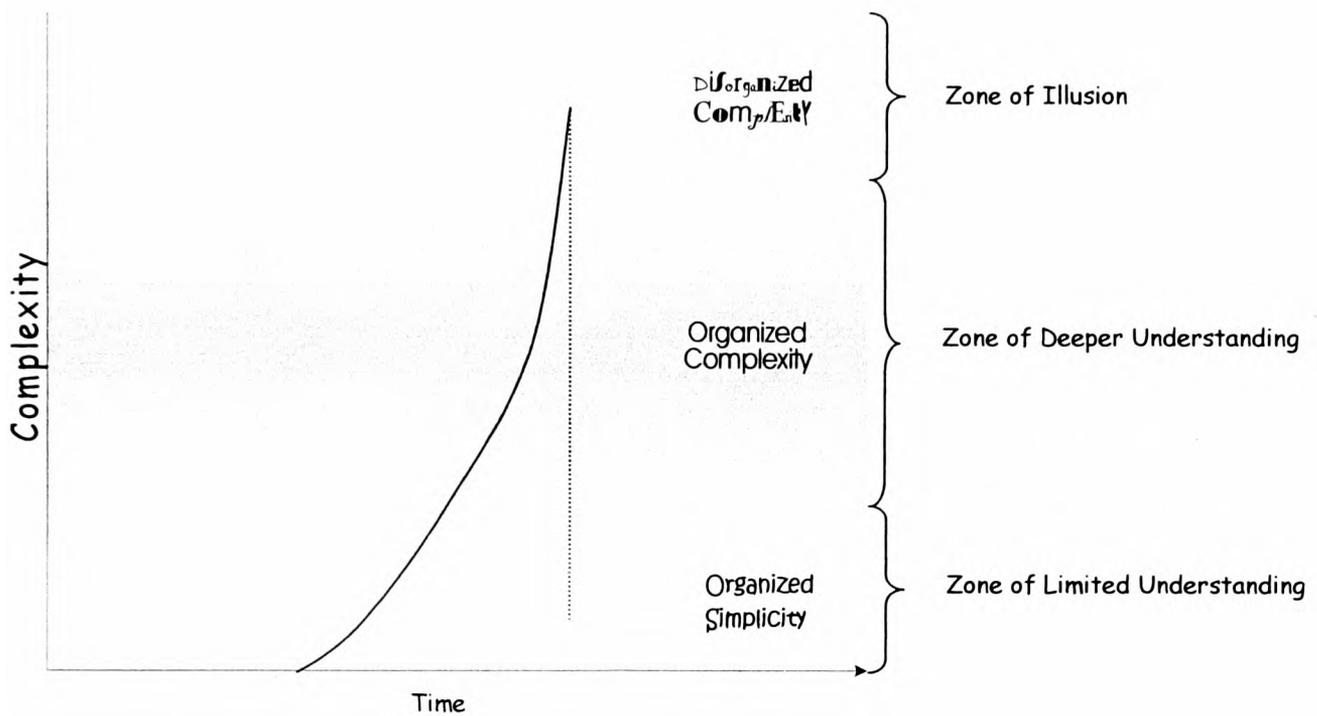


Figure 25 - Process of inquiry when increased time or capacity is available

If this is indeed the case, that we have come full circle as far as our treatment of the situation is concerned (see Figure 25), then there is a further case to argue for the System of Systems Methodologies to be represented not just as a cylinder but as a torus.

12.4 System of Systems Methodologies as a Torus

In the same way that the rule-bound context closes the loop along the participants axis, if we no longer treat the complexity axis as a 'bi-polar' continuum then we also create a loop along the complexity axis. With both the participant and complexity axis drawn together as loops the System of Systems Methodologies takes the form of a torus. See figure 26:

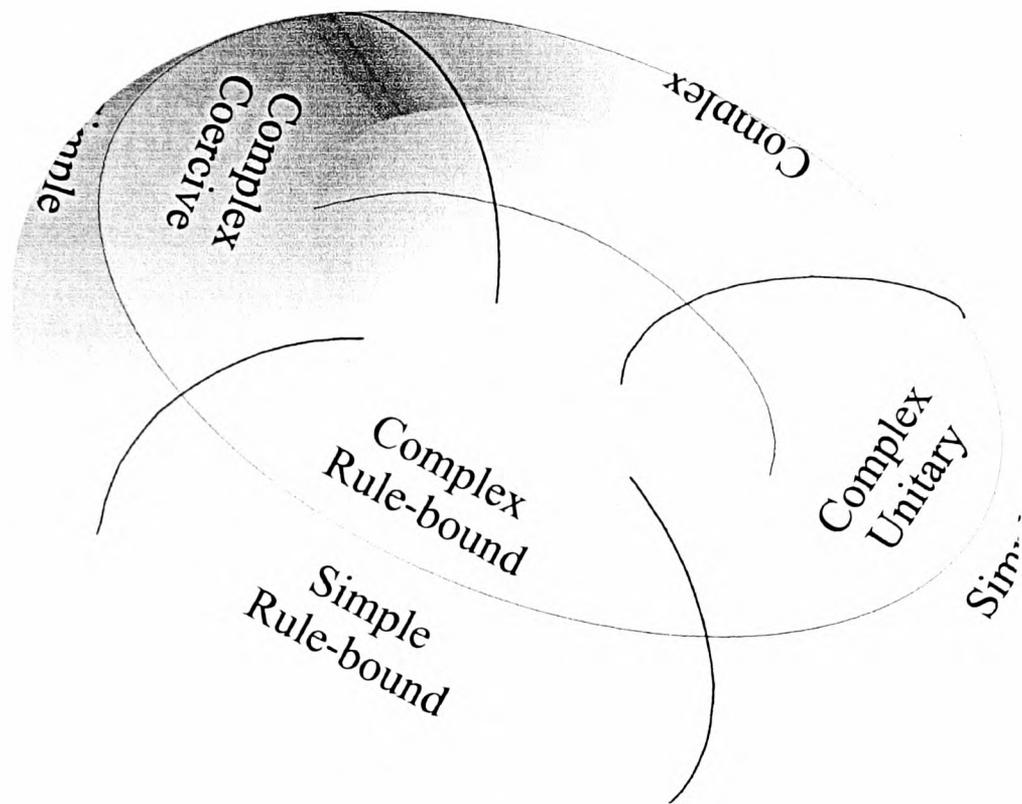


Figure 26 - Ideal Type problem context grid as a Torus

This suggests that we have placed another facet upon our role as systems researchers and practitioners.

12.5 Conclusion

It should be our function as Systems/OR Practitioners to continue to develop ways of working in and maintaining investigations in the zone of organized complexity for as long as possible in order to develop a deeper understanding. Should we then have to resort to aggregations and simplifications, due to time pressures or a gaps in our knowledge, we should be in a much better position to ‘make sense’ of the results of our analyses.

13 Conclusions

13.1 Introduction

In conclusion, I will summarize what I see as the contributions of my thesis, drawing out four main points: bridging theory, methodology and practice; learning from failure; the introduction of ‘rule-bound systems’ as an ideal problem type context and, the subsequent development of the System of Systems Methodologies.

13.2 ‘Bridging theory, methodology and practice’

The learning process, when taken as a whole serves as an example of how Systems/OR Practitioners can build research programs bridging theory, methodology and practice. In particular the process of making explicit and mapping out of the Initial Reflections provides a focus on the questions posed, the issues raised, and some of the possible influences and alternative options available. Which when combined with other elements of the research, shows a direct contrast to the OR literature where theory is often looked upon as a dirty word (Midgley, 1998) - this work demonstrates the value of theory.

13.3 ‘Learning from failure’

The fact that the practical aspect of the research did not reach fruition as had been planned, could quite easily be interpreted as a negative outcome in itself alone. However, though not made explicit, or even perhaps eluded to within, this work demonstrates how we can learn from ‘failure’. Failure should not go undeclared,

instead it should be explored, not hidden, because as in this case, it can give rise to new and useful insights.

13.4 Development of rule-bound contexts for the SoSM

The concept of the rule-bound system is a new a useful addition to the 'ideal-type' problem context grid. Providing another perspective on organizations that may help provide further insights when analyzing organizations. It replaces the argument for perfect coercion as the means of 'closing the gap' between the Unitary and Coercive contacts. Thus, allowing the System of Systems Methodologies to be conceived of as cylindrical in its complexion.

13.5 Further development of the System of Systems Methodologies - Torus

In addition to the 'closure' of the System of Systems Methodologies along the participants dimension, 'closure' along the 'systems' dimension has provided another perspective on the role of Systems/OR Practitioners. An opportunity to investigate possible ways of working and maintaining investigations in the zone of organized complexity. Allowing us to remain in a much better position to 'make sense' of the results of our analyses.

13.6 Possibilities for future research

Having identified Rule-bound Systems as a new and useful addition to the set of 'ideal types', future research should be aimed at testing this new theory in practice.

References

- Aarts, J.M.G. and Calbert, J.P. (1979), *Metaphor and Non-Metaphor: The Semantics of Adjective-Noun Combinations*, Max Niemeyer Verlag, Tübingen
- Abelson, R.P. and Levi, A., (1985), 'Decision Making and Decision Theory': In Lindzey, G. and Aronson, E., (Eds.), *The Handbook of Social Psychology* (3rd ed. Vol. 1), Random House, New York, cited in: Johnson, J. and Bruce, A., (1994), Decision-Making in a Risky Environment: The Impact of Complexity on Participation and Performance, Discussion Paper No. 94-82, Department of Accounting & Management Science, University of Southampton
- Ackoff, R.L., (1974), *Redesigning the Future*, Wiley, New York.
- Ackoff, R.L., (1977), 'Optimization + objectivity = opt out', *European Journal of Operational Research*, 1:1
- Ackoff, R.L., (1979a), 'The Future of Operational Research is Past', *Journal of the Operational Research Society*, 30:93
- Ackoff, R.L., (1979b), 'Resurrecting the Future of Operational Research', *Journal of the Operational Research Society*, 30:189
- Ackoff, R.L., (1981), *Creating the Corporate Future*, Wiley, New York.
- Adler, P.S. and Borys, B., (1996), 'Two types of bureaucracy: enabling and coercive', *Administrative Science Quarterly*, Vol. 41, pp:61-89
- Agnew, N.McK. and Brown, J.L., (1986), 'Bounded rationality: fallible decisions in unbounded decision space', *Behavioural Science*, 31, 148-161
- Allbritton, D.W., (1995), 'When Metaphors Function as Schemas: Some Cognitive Effects of Conceptual Metaphors', *Metaphor and Symbolic Activity*, Vol. 10, No. 1, pp: 33-46
- Ankersmit, F.R., (1994), *History and Tropology: The Rise and Fall of Metaphor*, University of California Press, Berkeley
- Argyris, C. and Schön, D., (1974), *Theory in Practice*, Jossey-Bass, San Francis
- Arieti, S., (1972), *The will to be human*, Quadrangle Books, New York.
- Aristotle, *De Poetica* trans by Bywater, I., (1946), Oxford University Press, London
- Ashby, R. W., (1956), *An Introduction to Cybernetics*, Methuen, London.

- Ashby, R. W., (1973), 'Some peculiarities of complex systems', *Cybernetic Medicine*, 9, pp: 1-7, cited in: Flood, R.L. and Carson, E.R., (1988), *Dealing with Complexity: An Introduction to the Theory and Application of Systems Science*, Plenum, New York
- Ayalon, O., (1999), cited at: www.oh-cards.com
- Backman, G., (1991), *Meaning by Metaphor: An Exploration of Metaphor with a Metaphoric Reading of Two Short Stories by Stephen Crane*, Almqvist & Wiksell International, Stockholm
- Barish, N.N., (1963), 'Operations research and industrial engineering: The applied science and its engineering', *Operations Research*, 11, 387-398
- Barrow, J.D., (1992), *Pie in the Sky*, Penguin, Harmondsworth, cited in: Byrne, D., (1998), *Complexity Theory and the Social Sciences: An Introduction*, Routledge, London
- Beeforth, M., Conlan, E., Field, V., Hoser, B. and Sayce, L. (eds.), (1990), *Whose Service is it Anyway? User's Views on Coordinating Community Care, Research & Development for Psychiatry*, London
- Beer, S., (1959), *Cybernetics and Management*, EUP, Oxford.
- Beer, S., (1979), *The Heart of the Enterprise*, Wiley, Chichester.
- Bell, F. and Davis, R.C., (1998), 'Using SSM and Software Prototyping: An Emergent Methodology for an Ethical Information System, Paper presented at the BCS 6th Annual Conference on Methodologies, University of Salford
- Berger, P.L. and Luckmann, T., (1984), *The Social Construction of Reality*, Penguin, Harmondsworth
- Berggren, D., (1959), *An Analysis of Metaphorical Meaning and Truth*, PhD Diss. Yale cited in: Shibbes, W.A., (1971), *Metaphor: An Annotated Bibliography and History*, The Languages Press, Wisconsin
- Bertalanffy, L. von, (1985), 'General Systems Theory – a critical review', in: Open Systems Group (eds.), (1985), *Systems Behaviour*, (3rd Ed.), Harper & Row, London.
- Biziou, B., (2002), author of, *The Joy of Ritual and the Joy of Family Rituals*, cited at: www.oh-cards.com
- Black, M. (1962), *Model and Metaphor*, Cornell University Press, Ithaca.
- Black, M. (1979), 'More about Metaphor' in: Ortony, A. (ed.) (1979b), *Metaphor and Thought*, Cambridge University Press, Cambridge.

- Black, M., (1981), 'Metaphor' in: Johnson, M., (ed.), *Philosophical perspectives on metaphor*, University of Minnesota Press, Minnesota (reprinted from: 1954, *Proceedings of the Aristotelian Society*, 55, 273-294)
- Bogdanov, A. (1912), *Vseobshchaya orginizationnaya nauka: Tektologia* (The Universal Organizational Science : Tektology), Vol. I, St. Petersburg
- Bogdanov, A. (1917), *Vseobshchaya orginizationnaya nauka: Tektologia* (The Universal Organizational Science : Tektology), Vol. II, Moscow
- Bogdanov, A. (1921), *Ocherki Organizationnoi Nauki*, (Essays in Organizational Science, Samara
- Bogdanov, A. (1922), *Tektologia: Vseobshchaya Orginizationnaya Nauka* (The Universal Organizational Science), Three volumes, Izdatelstvo A. I. Grshebina, Moscow
- Bogdanov, A. (1989), *Tektologia: Universal Organizational Science*, Russia
- Bogdanov, A. A., (1996), *Bogdanov's Tektology, Book 1 Translation*, Centre for Systems Studies Press, Hull : First Published in Russian, 1913-1917
- Boulding, K.E., (1966), 'The ethics of rational decision', *Management Science*, 12 (Series B), 161-9
- Boyd, R., (1979), 'Metaphor and Theory Change: What is "Metaphor" a Metaphor for?', in: Ortony, A., (1979b), (ed.), *Metaphor and Thought*, Cambridge University Press, Cambridge
- Boyden, J., (1990), 'Childhood and the policymakers: a comparative perspective on the globalisation of childhood', in James, A. and Prout, A. (eds.), *Constructing and Reconstructing Childhood: Contemporary Issues in the Sociological Study of Childhood*, The Falmer Press, London
- Bréal, M., (1964), *Semantics: Studies in the Science of Meaning*, Mrs Henry Cust, trans, Dover, New York, cited in: Shibles, W.A., (1971), *Metaphor: An Annotated Bibliography and History*, The Languages Press, Wisconsin
- Brehmer, B., (1992), 'Dynamic decision-making: human control of complex systems', *Acta Psychologica*, 81, 211-241
- Brewerton, P. and Millward, L., (2001), *Organizational Research Methods: A Guide for Students and Researchers*, Sage, London
- Brown, M., (1996), 'A framework for assessing participation', in: Flood, R.L. and Romm, N.R.A. (eds.) (1996), *Critical Systems Thinking: Current Research and Practice*, Plenum, New York

- Brown, S.J., (1966), *The World of Imagery: Metaphor and Kindred Imagery*, Russell & Russell, New York
- Bryer, R.A., (1979), 'The status of the systems approach', *Omega*, 7:219
- Buchanan, A., (1993), 'Life under the Children Act 1989', *Adoption and Fostering*, Vol. 17 No. 3, 1993, pp: 35-38
- Buckley, W., (1968), 'Society as a Complex Adaptive System', in: Buckley, W. (ed.), 1968, *Modern Systems Research for the Behavioural Scientist*, Aldine Publishing Company, Chicago
- Burns, T. and Stalker, G.M., (1961), *The Management of Innovation*, Tavistock, London
- Burrell, G. and Morgan, G., (1979), *Sociological Paradigms and Organizational Analysis*, Heinemann, London
- Bustard, D.W.; Greer, D. and Tate, G., (1994), 'Enhancing the Soft Systems Methodology with Risk Assessment Techniques', Paper presented at: 2nd International Conference on Software Quality Management, Edinburgh, July 1994, www.infc.ulst.ac.uk/informativs/ise/se/re/enhancing2.html
- Byrne, D., (1998), *Complexity Theory and the Social Sciences: An Introduction*, Routledge, London
- Bywater, I., (1946), (trans), Aristotle, *De Poetica*, Oxford University Press, London
- Camac, M.K. and Glucksberg, S., (1984), 'Metaphors do not use associations between concepts, they are used to create them', *Journal of Psycholinguistic Research*, 13, 443-455
- Cameron, I., (1976), *Metaphor in Science and Society*, The Sison Project, Manchester
- Carr, A. Z., (1968), 'Is Business Bluffing Ethical?', reprinted in: Beauchamp, T.L. and Bowie, N.E. (eds.), *Ethical Theory and Business*, Prentice Hall, Englewood Cliffs, pp:449-454
- Checkland, P.B. (1978), 'The origins and nature of 'hard' systems thinking', *Journal of Applied Systems Analysis*, 5(2):99
- Checkland, P.B. (1981), *Systems Thinking, Systems Practice*, Wiley, Chichester.
- Checkland, P.B. (1983), 'OR and the systems movement; mappings and conflicts', *Journal of the Operational Research Society*, Vol. 34, pp:661-675

- Checkland, P.B. and Scholes, J., (1990), *Soft Systems Methodology in Action*, Wiley, New York.
- Checkland, P.B., (1992), 'From framework through experience to learning: the essential nature of action research', *Proceedings of the Second World Congress on Action Learning*, 14-17 July 1992, pp. 1-7
- Churchman, C.W. (1970), 'Operations research as a profession', *Management Science*, Vol.17, pp. B37-B53.
- Churchman, C.W., (1971), *The Design of Enquiring Systems*, Basic Books, New York
- Churchman, C.W., (1979a), 'Paradise regained: A hope for the future of systems design education', in: *Education in Systems Science*, Bayraktar, B.A., Muller-Merbach, H., Roberts, J.E., and Simpson, M.G., (eds.), Taylor and Francis, London, pp:17-22.
- Churchman, C.W., (1979b), *The Systems Approach*, (2nd Ed.), Dell, New York.
- Clayton, J., (1996), *A Practical Project at HM Prison Hull: Total Systems Intervention or Total Systems Failure?*, MA Dissertation, University of Hull
- Clayton, J. and Gregory, W.J., (1997a), *Total Systems Intervention or Total Systems Failure: Reflections on an Application of TSI in a Prison*, Research Memorandum No. 15, Centre for Systems Studies, University of Hull
- Clayton, J. and Gregory, W.J., (1997b), 'Total Systems Intervention or Total Systems Failure?' in: Stowell, F. A. et al (eds.), 1997, *Systems for Sustainability: People, Organizations and Environments*, Plenum, New York
- Clayton, J. and Gregory, W.J., (2000), 'Reflections on critical systems thinking and the management of change in rule-bound systems', *Journal of Organizational Change Management*, Vol. 13, No. 2, pp:140-161
- Clegg, S., (1975), *Power, Rule and Domination*, Routledge and Kegan Paul, London
- Clegg, S., (1981), Organization and Control, *Administrative Science Quarterly*, 26, 532-545
- Clegg, S., (1983), 'Phenomenology and formal organizations: a realist critique', in: Bacharach, S.B., (1983), (ed.), *Research in the Sociology of Organizations*, Vol. 2, JAI Press, Greenwich

- Cohen, C. and Midgley, G., (1994), 'The North Humberside diversion from custody project for mentally disordered offenders', Research Report, Centre for Systems Studies, University of Hull
- Cohen, T., (1979), 'Metaphor and the cultivation of intimacy', in Sacks, S., (ed.), (1979), *On Metaphor*, University of Chicago, Chicago
- Cohen, J. and Stewart, M., (1995), *The Collapse of Chaos*, Penguin, Harmondsworth, cited in: Byrne, D., (1998), *Complexity Theory and the Social Sciences: An Introduction*, Routledge, London
- Cragg, W., (1997), Teaching Business Ethics: The Role of Ethics in Business and in Business Education, *Journal of Business Ethics*, Vol.16, pp:231-245
- Dalferth, I.U., (1981), *Religiöse Rede von Gott*, Christian Kaiser, Munich
- Dando, M.R., DeFrenne, A. and Sharp, R.G., (1977), 'Could OR be science?', *Omega*, 5, 89-92
- Darzentas, J., Darzentas, J. and Spyrou, T., (1994), 'Defining the Design "Decision Space": rich pictures and relevant subsystems', *AMODEUS Project Document*, TA/WP 21, The AMODEUS Project, ESPRIT Basic Research Action 7040
- Davidson, M., (1983), *Uncommon Sense: The Life and Thought of Ludwig von Bertalanffy (1901-1972), Father of General Systems Theory*, J.P. Tarcher Inc., Los Angeles.
- de Gues, A.P., (1994), 'Modeling to predict or to learn?', in: Morecroft, J.D.W. and Sterman, J.D., (eds.), (1994), *Modeling for Learning Organizations*, Productivity Press, Portland. Cited in: Midgley, G. (1997b) "Mixing methods: developing systemic: intervention", in Mingers, J. and Gill, A. (eds.), *Multimethodology The Theory and Practice of Combining Management Science Methodologies*, Wiley, Chichester, pp. 249-90.
- Del Amitri, (1989), 'You're Gone' (track 5), *Waking Hours*, A&M Records, London
- Denham, R.D., (1990), *Northrop Fyre Myth and Metaphor: Selected Essays, 1974-1988*, University Press of Virginia, Charlottesville: originally presented as an address to the Society, for Mediterranean Studies, University of Toronto, (1984) – previously unpublished
- Department of Employment, (1973), cited in: Evans, D., (1990), *Supervisory Management: Principles and practice*, 2nd Ed., Cassell, London
- Dewey, J., (1966), *Democracy and education: an introduction to the philosophy of education*, Macmillan, New York

- Dick, B. and Swepson, P., (1994), 'Appropriate validity and its attainment within action research: an illustration using soft systems methodology', www.scu.edu.au/schools/sawd/arr/sofsys2.html
- Dilthey, W., (1931), 'The Types of World Views and their Unfoldment within the Metaphysical Sciences', in: Kluback, W. and Weinbaum, M., (1957), (trans.), Dilthey's Philosophy of Existence: Introduction Weltanschauunglehre, Vision, London, cited in: Forbes, P., (1995), 'Strategic Thinking: A Role for Soft Systems Methodology', Paper presented at: 2nd Australasian Conference in Strategic Management, La Trobe University, Australia, April 1995, www.oac.usyd.edu.au/pforbes/cpsm/acsm2.htm
- Doerner, D., (1980), 'On the problems people have in dealing with complexity', *Simulation and Games*, 11, 87-106
- Dudley, P., (1996), A conversation with John Clayton regarding the complexion of the System of Systems Methodologies, Centre for Systems Studies, Hull
- Dudley, P. and Pustylnik, S.N. (1995), *Reading the Tektology: Provisional findings, postulates and research directions*, Research Memorandum No.7, Centre for Systems Studies, Hull.
- Dudley, P., (ed.), (1995), *Bogdanov's Tektology (Book 1)*, Translated by: Sadovsky, V.N. (Technical Editor); Kartashov, A.; Kelle, V. and Bystrov, P., Centre for Systems Studies Press, Hull
- Durkheim, E., (1966), *The Division of Labour in Society*, Free Press, New York
- Durkheim, E., (1968), *Suicide*, Routledge Kegan and Paul, London
- Durkheim, E., (1973), *Moral Education: A Study in the Theory and Application of the Sociology of Education*, The Free Press, Glencoe - Translated by Wilson, E. K. and Schnurer, H. from: Durkheim, E., (1925), *L'éducation morale*, Librairie Félix Alcan
- Dutt, P.K., (1994), Problem Contexts – A consultant's perspective, *Systems Practice*, 7, 539-550
- E-201, (2000), 'Systemic-functional grammar', Østfold University College, Norway, <http://folk.uio.no/hasselg/systemic/cohesion&metaphor.html>
- Easterby –Smith, M., Thorpe, R. and Lowe, A., (1991), *Management Research: an Introduction*, Sage, London
- Eiser, J.R. and van de Pligt, J., (1988), *Attitudes and Decisions*, Routledge, New York
- Encarta®, (1997), 'Symbiosis', *Microsoft® Encyclopaedia*. © 1993-1996 Microsoft Corporation

- Ennew, J. and Miljeteig, P., (1996), 'Indicators for children's rights: progress report on a project', *The International Journal of Children's Rights*, 4: 213-236, 1996
- Evans, D., (1990), *Supervisory Management: Principles and practice*, 2nd Ed., Cassell, London
- Etzioni, A., (1985), 'Guidance Rules and rational decision-making', *Social Science Quarterly*, 66, 755-769, cited in: Johnson, J. and Bruce, A., (1994), *Decision-Making in a Risky Environment: The Impact of Complexity on Participation and Performance*, Discussion Paper No. 94-82, Department of Accounting & Management Science, University of Southampton
- Fals-Borda, O. and Rahman, M.A. (ed.), (1991), *Action and Knowledge: Breaking the monopoly with participatory action-research*, Apex Press, New York
- Faris, R.E.L., (1964), *Handbook of Modern Sociology*, Rand McNally, Chicago
- Fielding, N. (1993), 'Ethnography' in: Gilbert, N., (ed.), *Researching Social Life*, Sage
- Finegan, A., (1994), 'Soft Systems Methodology: An Alternative Approach to Knowledge Elicitation in Complex and Poorly Defined Systems', www.csu.edu.au/ci/vol1/Andrew.Finegan/paper/html
- Finegan, A.D., (1995), 'Fuzzy Logic and Soft Systems Methodology – A Complex Connection', paper first presented as a paper at: The Australian Systems Conference – Systems for the Future, Perth, Australia, 26-28 Sept., 1995, www.bf.rmit.edu.au/~andrewf/fuzzyssm/fuzzyssm.htm
- Fineman, S and Gabriel, Y, 1996, *Experiencing Organizations*, Sage, London
- Flood, R.L., (1987), 'Complexity: A definition by construction of a conceptual framework', *Systems Research*, 4(3), pp: 177-185
- Flood, R.L. (1995), *Solving Problem Solving*, Wiley, Chichester.
- Flood, R.L., (1999), 'Give it a go Georgiou!', *Journal of the Operational Research Society*, Vol. 50 No. 1, pp:99-100
- Flood, R.L. and Carson, E.R., (1988), *Dealing with Complexity: An Introduction to the Theory and Application of Systems Science*, Plenum, New York
- Flood, R.L. and Jackson, M.C. (eds.) (1991a), *Critical Systems Thinking. Directed Readings*, Wiley, Chichester.
- Flood, R.L. and Jackson, M.C., (1991b), *Creative Problem Solving: Total Systems Intervention*, Wiley, Chichester

- Flood, R.L. and Jackson, M.C., (1991c), 'Critical Systems Heuristics: application of an emancipatory approach for police strategy toward the carrying of offensive weapons', *Systems Practice*, 4, 283-302
- Flood, R.L. and Romm, N.R.A., (1995), 'Enhancing the process of choice in TSI, and improving chances of tackling coercion', *Systems Practice*, 8, 469-482
- Flood, R.L. and Romm, N.R.A. (eds.) (1996a), *Critical Systems Thinking: Current Research and Practice*, Plenum, New York
- Flood, R.L. and Romm, N.R.A. (1996b), *Diversity Management: Triple Loop Learning*, Wiley, Chichester
- Forbes, P., (1995), 'Strategic Thinking.: A Role for Soft Systems Methodology', Paper presented at: 2nd Australasian Conference in Strategic Management, La Trobe University, Australia, April 1995, www.oac.usyd.edu.au/pforbes/cpsm/acsm2.htm
- Foucault, M., (1977), *Discipline and Punish: The Birth of the Prison*, Penguin, Harmondsworth
- Foucault, M., (1980), 'Power/Knowledge: selected interviews and other writings 1972-1977', in: Gordon, C. (ed.), Harvester Press, Brighton
- Foucault, M., (1982), 'The subject and power', in: Dreyfus, H.L. and Rainbow, P., (eds.), *Michel Foucault: Beyond Structuralism and Hermeneutics*, Harvester Press, Brighton
- Foucault, M., (1984), *The History of Sexuality: An Introduction*, Penguin, Harmondsworth
- Francis, R., (1992), 'Ethnographic Research' in: Pons, V. (ed.), '*Introduction to Social Research*', Dares Salaam University Press
- Franklin, B. (ed.), (1986), 'Introduction' (Chapter 1), *The Rights of Children*, Blackwell, Oxford
- Garlick, F.J. and Leonard, G. L., (1997), 'Rich Pictures: A counselling aid' in: Stowell, F. A. et al (eds.), *Systems for Sustainability: People, organizations and environments*, Plenum, New York
- Gentner, D., (1983), 'Structure-mapping: A theoretical framework for analogy', *Cognitive science*, 11, 177-220
- Ghuri, P.N., Grønhaug, K. and Kristianslund, I., (1995), *Research Methods in Business Studies: a Practical Guide*, Prentice Hall, London
- Gibbs, R.W. Jr. and Gerrig, R.J., (1989), 'How context makes metaphor comprehension seem 'special'', *Metaphor and Symbolic Activity*, 4, 145-158

- Giddens, A., (1982), *New Rules of Sociological Method*, Hutchinson, London
- Gleik, J., (1987), *Chaos: Making a New Science*, Viking, New York
- Glucksberg, S. and Keysar, B., (1990), 'Understanding metaphorical comparisons: Beyond similarity', *Psychological Review*, 97, 3-18
- Glucksberg, S., (1991), 'Beyond literal meanings; The psychology of allusion', *Psychological Science*, 2, 146-152
- Goatly, A., (1997), *The Language of Metaphors*, Routledge, London
- Goffman, E., (1957), *The Presentation of Self in Everyday Life*, Doubleday, New York, cited in: Mills, A.J. and Murgatroyd, S.J., (1991), *Organizational Rules: A Framework for Understanding Organizational Action*, Open University Press, Milton Keynes
- Goffman, E., (1959), *Frame Analysis*, Harper and Row, New York, cited in: Mills, A.J. and Murgatroyd, S.J., (1991), *Organizational Rules: A Framework for Understanding Organizational Action*, Open University Press, Milton Keynes
- Goffman, E., (1984), *Asylums – Essays on the Social Situation of Mental Patients and Other Inmates*, Penguin, Harmondsworth, cited in: Mills, A.J. and Murgatroyd, S.J., (1991), *Organizational Rules: A Framework for Understanding Organizational Action*, Open University Press, Milton Keynes
- Gorelik, G. (trans.): (1984), *A. Bogdanov Essays in Tektology, the General Science of Organization* (2nd Ed.), Intersystems Publications, California
- Gouldner, A., (1954), *Patterns of Industrial Democracy*, Free Press, New York
- Graber, D., (1993), 'Political communication: Scope, progress, promise', in: Finifter, A., (ed.), (1993), *The State of the Discipline*, The American Political Science Association, Washington DC
- Grant, D. and Oswick, C., (1996), 'Introduction: Getting the Measure of Metaphors', in: Grant, D. and Oswick, C., (1996), (eds.), *Metaphor and Organizations*, Sage, London
- Gregory, D., (2002) author of, *Callus On My Soul*, cited at: www.oh-cards.com
- Gregory, W.J. (1990), 'Critical systems thinking and LST: How "liberating" are contemporary critical and liberating systems approaches? in: Banathy, B.H. and Banathy, B.A., (eds.), (1990), *Towards a Just Society for Future Generations, Volume I: Systems Design*, International Society for the Systems Sciences, Pamona

- Gregory, W.J. (1992), 'Critical systems thinking and pluralism: a new constellation', PhD thesis, The City University, London.
- Gregory, W J. (1996), 'Discordant pluralism: a new strategy for critical systems thinking?', *Systems Practice*, Vol. 9, pp. 605-25.
- Gregory, W.J., Romm, R. and Walsh, M., (1994), 'The Trent quality initiative: A multi-agency evaluation of quality standards in the National Health Service', Research Report, Centre for Systems Studies, University of Hull
- Grosman, C.P., (1996), 'Argentina – Children's rights in family relationships: The gulf between law and social reality', in: Freeman, M., 1996, *Children's Rights: A comparative perspective*, Dartmouth, Aldershot
- Gunton, C.E., (1988), *The Actuality of Atonement: A Study of Metaphor, Rationality and the Christian Tradition*, T&T Clark, Edinburgh
- Hall, A.D. (1962), *A Methodology for Systems Engineering*, Van Norstrand, Princeton, NJ.
- Hall, R.H., (1978), 'Professionalisation and bureaucratisation', in: Salaman, G., and Thompson, K., (1978), (eds.), *People and Organizations*, Open University Press, Buckingham
- Hammersley, M., (1990), *Reading Ethnographic Research: A Critical Guide*, Longman, London
- Hammersley, M., (1992), *What's wrong with Ethnography?*, Routledge, London
- Hardy, C. and Leiba-O'Sullivan, S., (1998), 'The power behind empowerment: implications for research and practice', *Human Relations*, Vol.51 No.4, pp:451-83
- Healy, M.J., (1991), 'Obtaining information from business', in: Healey, M.J., (1991), (ed.), *Economic Activity and Land Use: the Changing Information Base for Local and Regional Studies*, Longman, Harlow
- Healy, M.J. and Rawlinson, M.B., (1993), 'Interviewing business owners and managers: a review of methods and techniques', *GeoForum*, 24:3, 339-55
- Healy, M.J. and Rawlinson, M.B., (1994), 'Interviewing techniques in business and management research', in: Wass, V.J. and Wells, P.E., (1991), *Principles and Practice in Business and Management Research*, Aldershot, Dartmouth
- Henle, P., (1958), 'Metaphor': in Henle, P., (ed.), (1958), *Language, Thought, and Culture*, Ann Arbor
- Hesse, M.B., (1993), 'Models, Metaphors and Truth', in Ankersmit, F.R. and Mooij, J.J.A., (eds.), *Knowledge and Metaphor*, Dordrecht

- Hilliard, R.B., (1993), 'Single-case methodology in psychotherapy process and outcome research', *Journal of Consulting and Clinical Psychology*, 61, 3, 373-380 cited in: Brewerton, P. and Millward, L., (2001), *Organizational Research Methods: A Guide for Students and Researchers*, Sage, London
- Hills, A., (1988), 'Freeing the Chattels', *Social Work Today*, 1 December 1988, pp:16-17
- HMSO, (1989), *Working for Patients*, HMSO, London
- Hoos, I., (1972), *Systems Analysis in Public Policy: A Critique*, University of California Press, Berkley
- Hoos, I., (1976), 'Engineers as analysts of social systems: A critical enquiry', *Journal of Systems Engineering*, 4(2):81
- Huczynski, A. and Buchanan, D., (1991), *Organization*, 2nd Ed., Prentice-Hall, Hemel Hempstead
- Hume, T.E., (1962), *Further Speculations*, University of Nebraska Press, Nebraska cited in: Shibles, W.A., (1971), *Metaphor: An Annotated Bibliography and History*, The Languages Press, Wisconsin
- Ivanov, K., (1991), 'Critical Systems Thinking and information technology', *Journal of Applied Systems Analysis*, 18, 39-55
- Jackson, J., (1979), 'Its different for girls', (track 4), *I'm the Man*, A&M Records, London
- Jackson, M.C., (1982), 'The nature of soft systems thinking: The work of Churchman, Ackoff and Checkland', *Journal of Applied Systems Analysis*, 9:17
- Jackson, M.C., (1983), 'The nature of soft systems thinking: Comments on the three replies', *Journal of Applied Systems Analysis*, 10:109
- Jackson, M.C., (1985), 'The itinerary of a critical approach: review of Ulrich's 'Critical Heuristics of Social Planning'', *Journal of the Operational Research Society*, 36, 878-881
- Jackson, M.C., (1986), 'The cybernetic model of the organization : An assessment, in: Trappl, R., (ed.), *Cybernetics and Systems*, D. Reidel, Dordrecht, pp. 189-196
- Jackson, M.C., (1987), 'New directions in management science', in: Jackson, M.C. and Keys, P., (eds.), (1987), *New Directions in Management Science*, Gower, Aldershot
- Jackson, M.C., (1988), 'Some methodologies for community OR', *Journal of the Operational Research Society*, 39: 715

- Jackson, M.C., (1989), 'Which systems methodology when? Initial results from a research program, in: Flood, R.L.; Jackson, M.C. and Keys, P., (eds.), (1989), *Systems Prospects, The Next Ten Years of Research*, Plenum New York
- Jackson, M.C., (1990), 'Beyond a system of systems methodologies', *Journal of the Operational Research Society*, 41: 657
- Jackson, M.C., (1991), *Systems Methodology for the Management Sciences*, Plenum, New York
- Jackson, M.C., (1993), 'The system of systems methodologies: a guide to researchers', *Journal of the Operational Research Society*, 44, 208
- Jackson, M.C. (1999), "Toward coherent pluralism in management science", *Journal of the Operational Research Society*, Vol. 50, pp.12-22.
- Jackson, M.C., (2000), *Systems Approaches to Management*, Kluwer Academic/Plenum Publishers, New York
- Jackson, M.C. and Keys, P., (1984), 'Towards a system of systems methodologies', *Journal of the Operational Research Society*, 44: 208
- Jarvis, C., (2002), 'Peter Checkland's Soft Systems Methodology and CATWOE', *Business Open Learning Archive*, <http://sol.brunel.ac.uk/~jarvis/bola/information/ssm.html>
- Johnson, M. (1987), *The Body in the Mind: The Bodily Basis of Meaning, Imagination and Reason*, University of Chicago Press, Chicago.
- Johnson, J. and Bruce, A., (1994), *Decision-Making in a Risky Environment: The Impact of Complexity on Participation and Performance*, Discussion Paper No. 94-82, Department of Accounting & Management Science, University of Southampton
- Jones, G.C., (1993), 'Or practice, systems methodologies, and the need to do better', *Journal of the Operational Research Society*, 44, 845-848
- Joy, W.B., (2002), author of, *Joy's Way: A Map of the Transformational Journey*, cited at: www.oh-cards.com
- Kahneman, D., Slovic, P. and Tversky, A., (1982), *Judgement under Uncertainty: Heuristics and Biases*, Cambridge University Press, New York
- Kelly, M.H. and Keil, F.C., (1987), 'Metaphor comprehension and knowledge of semantic domains', *Metaphor and Symbolic Activity*, 2, 33-51
- Keren, G. and Wagenaar, W.A., (1985), 'On the psychology of playing blackjack: normative and descriptive considerations with implications for decision theory', *Journal of Experimental Psychology: General*, 114, 133-158

- Keys, P., (1989), 'OR as technology: Some issues and implications', *Journal of the Operational Research Society*, 40, 753-759
- Keys, P., (1991), *Operational Research and Systems: The Systemic Nature of Operational Research*, Plenum, New York
- Keys, P., (1998), 'OR as technology revisited', *Journal of the Operational Research Society*, 49, 99-108
- Kipling, R., (1902), *Just So Stories*, Macmillan, London
- Klir, G., (1985), 'Complexity: Some general observations', *Systems Research*, 2(2), pp: 131-140 cited in: Flood, R.L. and Carson, E.R., (1988), *Dealing with Complexity: An Introduction to the Theory and Application of Systems Science*, Plenum, New York
- Koehn, D., (1997), Business and Game Playing: The False Analogy, *Journal of Business Ethics*, Vol. 16, pp: 1447-1452
- Kuhn (1970), *The Structure of Scientific Revolutions*, (2nd ed.), University of Chicago Press, Chicago
- Lakoff, G., (1987), *Women, Fire and Dangerous Things: What Categories Reveal About the Mind*, University of Chicago Press, Chicago.
- Lakoff, G., (1995a), 'Metaphor, Morality, and Politics Or, Why Conservatives Have Left Liberals in the Dust', University of California at Berkeley, http://socks.berkeley.edu/~chefboy/Ling_106/mmap.html
- Lakoff, G., (1995b), 'Metaphor, Morality, and Politics Or, Why Conservatives Have Left Liberals in the Dust', *Social Research*, Vol. 62, No. 2
- Lakoff, G., (1996), *Moral Politics*, University of Chicago Press, Chicago.
- Lakoff, G. and Johnson, M., (1980), *Metaphors We Live By*, University of Chicago Press, Chicago.
- Lakoff, G. and Turner, M. (1989), *More than Cool Reason: A Field Guide to Poetic Metaphor*, University of Chicago Press, Chicago.
- Lather, P., (1986) 'Research as Praxis', *Harvard Educational Review*, 56 (3): 257-77, Cited in: Reason, P. (ed.), 1994, *Participation in Human Inquiry*, Sage, London
- Lathrop, J.B., (1959), 'Operations research looks to science', *Operations Research*, 7, 423-429
- Lawrence and Lorsch, (1969), *Developing Organizations: Diagnosis and Action*, Harvard University Press, Reading, MA

- Lee, R. and Lawrence, P., (1985), *Organizational Behaviour: Politics at Work*, Penguin, Harmondsworth, cited in: Mills, A.J. and Murgatroyd, S.J., (1991), *Organizational Rules: A Framework for Understanding Organizational Action*, Open University Press, Milton Keynes
- Lewes, G.H., (1868), 'Mr Darwin's Hypotheses', *Fortnightly Rev.* n.s. 2:96-111, cited in: Young, R.M., (1985), *Darwin's Metaphor: Nature's place in Victorian culture*, Cambridge University Press, Cambridge
- Lewis, P.J., (1992), 'Rich Picture Building in the soft systems methodology', *European Journal of Information Systems*, Vol. 1, 5, pp:551-360
- Langston, R., (1992), *Complexity: Life at the edge of chaos*, Macmillan, New York
- Lewin, K., (1946). 'Action Research and Minority Problems, *Journal of Social Issues*, Vol. 2, pp 34-36
- Lewin, K., (1947), 'Frontiers in group dynamics', *Human Relations*, 1, 2-38
- Lewin, K., (1948), *Resolving Social Conflicts*, Harper and Brothers, New York
- Lewin, K., (1952), *Field Theory in the Social Sciences*, Tavistock Publications, London
- Lewin, R., (1998), 'Simple Yet Complex', *CIO Magazine*, Enterprise Section 2, 02-04-02
- Lilienfeld, R., (1978), *The Rise of Systems Theory: An Ideological Analysis*, Wiley, New York
- Loasby, B.J., (1976), *Choice, complexity and ignorance: An enquiry into economic theory and the practice of decision-making*, Cambridge University Press, Cambridge
- Locke, J., (1961), *Essay Concerning Human Understanding*, Yolton, J.W., (ed.), Dent, London (originally published 1690) cited in: Goatly, A., (1997), *The Language of Metaphors*, Routledge, London
- Lukes, S., (1974), *Power: A Radical View*, Macmillan, London
- Mahon, C.J., (1999), *Charting Complexity: Analysing how strategy emerges in organisations*, New Social Science Monographs, Copenhagen
- Malcolm, L.; Peake, A. and Walker, C., 1996, 'Powerless Children – Powerful Systems, *Children & Society*, Vol. 10, 1996, pp: 210-216
- Malin, H., (1981), Of kings and men, especially OR men, *Journal of the Operational Research Society*, 32, 953-965

- Mansell, G., (1991), Methodology Choice in a coercive context, *Systems Practice*, 4, 36-47
- Marion, R., (1999), *The Edge of Organization: Chaos and Complexity Theories of Formal Social Systems*, Sage, London
- Marx, K., (1967), *The Communist Manifesto*, Penguin, Harmondsworth
- Marx, K., (1973), *Grunrisse – Introduction to the Critique of Political Economy*, Penguin, Harmondsworth
- Mawardi, B., (1959), *Industrial invention: A study in group problem solving*, Unpublished doctoral dissertation, Harvard University, cited in: Pollio, H.R., (1996), 'Boundaries in Humour and Metaphor', in: Mio, J.S. and Katz, A.N., (eds.), *Metaphor: Implications and Applications*, Lawrence Erlbaum Associates, New Jersey
- Mayo, E., (1933), *The Human Problems of an Industrial Civilisation*, McMillan, New York
- McClennen, E., (1997), 'Pragmatic Rationality and Rules', *Philosophy & Public Affairs*, 1997
- McCull, M. and Stevens, R., (1991), 'The voice of the child – an elusive concept', *Justice of the Peace*, October 12, 1991, pp: 645-647
- McGuire, S., (1988), In new clothing – Academics in distance education, Athabasca University (mimeo) cited in: Mills, A.J. and Murgatroyd, S.J., (1991), *Organizational Rules: A Framework for Understanding Organizational Action*, Open University Press, Milton Keynes
- McNeill, P., (1985), *Research Methods*, Tavistock, London
- Midgley, G., (1988), *A Systems Analysis and Evaluation of Microjob-A Vocational Rehabilitation and Information Technology Training Centre for People with Disabilities*, M.Phil. thesis, City University, London
- Midgley, G., (1989), Critical systems: the theory and practice of partitioning methodologies. In *Proceedings of the 33rd Annual meeting of the international Society for General Systems Research (Volume II)*, held in Edinburgh, Scotland, 2-7 July 1989
- Midgley, G., (1990a), Critical systems and methodological pluralism, in: *Toward a Just Society for Future Generations*, Vol. 1, *Systems Design*, Proceedings of the 34th Annual Conference of the International Society for the Systems Sciences, Portland, Oregon, 8-13 July 1990
- Midgley, G., (1990b), Creative methodology design, *Systemist*, 12, 108-113

- Midgley, G., (1992a), Pluralism and the legitimation of systems science, *Systems Practice*, 5, 147-172
- Midgley, G., (1992b), *Unity and Pluralism*, PhD Thesis, City University, London
- Midgley, G., (1995), 'Evaluation and change in service systems for people with disabilities', in: Pilling, D. and Watson, G., (eds.), (1995), *Evaluating Quality in Services for Disabled and Older People*, Jessica Kingsley Publishers, London
- Midgley, G., (1996), 'What is this thing called CST?', in: Flood, R.L. and Romm, N.R.A. (eds.), (1996), *Critical Systems Thinking: Current Research and Practice*, Plenum Press, New York
- Midgley, G., (1997a), 'Understanding methodology choice in TSI: from the oblique use of methods to creative design', *Systems Practice*, Vol.10, pp. 305-19.
- Midgley, G., (1997b), 'Mixing methods: developing systemic: intervention', in Mingers, J. and Gill, A. (eds.), *Multimethodology The Theory and Practice of Combining Management Science Methodologies*, Wiley, Chichester, pp. 249-90
- Midgley, G., (1997c), 'Dealing with coercion: critical systems heuristics and beyond', *Systems Practice*, 10, 37-57
- Midgley, G., (1998), 'Theory and Practice in Operational Research', *Journal of the Operational Research Society*, 49, 1219-1220 (1998).
- Midgley, G., (2000), *Systemic Intervention: Philosophy, Methodology, and Practice*, Kluwer Academic/Plenum, New York
- Midgley, G. and Floyd, M., (1988), *Microjob: A Computer Training Service for People with Disabilities*, Rehabilitation Resource Centre, London
- Midgley, G. and Floyd, M., (1990), Vocational training in the use of new technologies for people with disabilities, *Behaviour and Information Technology*, 9, 409-424
- Midgley, G., Munlo, I. and Brown, B., (1997), *Sharing Power: Integrating user involvement and multi-agency working to improve housing for older people*, Policy Press, Bristol
- Midgley, G., Munlo, I.G. and Brown, M. (1998), 'The theory and practise of boundary critique: developing housing services for older people', *Journal of the Operational Research Society*, Vol. 49, pp. 467-78.
- Mills, A.J., (1988a), 'Organization, gender and culture', *Organization Studies*, 9 (3), 351-69

- Mills, A.J., (1988b), 'Organizational acculturation and gender discrimination', in: Kresl, K., (1988), (ed.), *Women and the Workplace*, Cambridge University Press, Cambridge
- Mills, A.J. and Murgatroyd, S.J., (1991), *Organizational Rules: A Framework for Understanding Organizational Action*, Open University Press, Milton Keynes
- Mingers, J., (1984), 'Subjectivism and soft systems methodology – a critique', *Journal of Applied Systems Analysis*, 11:85.
- Mingers, J., (1992a), 'Recent developments in critical management science', *Journal of the Operational Research Society*, 43, 1-10
- Mingers, J., (1992b), 'Technical, practical and critical OR-Past, present and future?', in: Alveson, M. and Willmott, H., (eds.), (1992), *Critical Management Studies*, Sage, London
- Mingers, J., (1992c), 'What are real friends for? A reply to Mike Jackson', *Journal of the Operational Research Society*, 43, 732-735
- Mingers, J., (1993), 'The system of systems methodologies – A reply to Schechter', *Journal of the Operational Research Society*, 44, 206-208
- Mingers, J. (1997a), 'Multi-paradigm Multimethodology', Chapter 1 in: Mingers, J. and Gill, A. (1997), *Multimethodology: The Theory and Practice of Combining Management Science Methodologies*, Wiley, Chichester.
- Mingers, J., (1997b), 'Towards Critical Pluralism' in: Mingers, J. and Gill, A., 1997, *Multimethodology, The Theory and practice of Combining Management Science Methodologies*, Wiley, Chichester
- Mingers, J. and Gill, A. (1997), *Multimethodology: The Theory and Practice of Combining Management Science Methodologies*, Wiley, Chichester.
- Mingers, J. and Taylor, S., (1992), 'The use of soft systems methodology in practice', *Journal of the Operational Research Society*, 43, 4, 321-332, cited in: Finegan, A.D., (1995), www.bf.rmit.edu.au/~andrewf/fuzzyssm/fuzzyssm.htm
- Mio, J.S. and Katz, A.N., (eds.), (1996), *Metaphor: Implications and Applications*, Lawrence Erlbaum Associates, New Jersey
- Mooij, J.J.A., (1976), *A Study of Metaphor: On The Nature of Metaphorical Expressions with Special Reference to their Reference*, North-Holland, Amsterdam
- Morgan, G. (1986), *Images of Organization*, Sage, Newbury Park.

- Murry, J.M., (1972), 'Metaphor' in: Shibbes, W., (1972), (eds.), *Essays on Metaphor*, The Language Press, Wisconsin, An essay first written in 1927
- Neale, (1996), Professional Conduct and Professional Misconduct: A Framework and its Application to the Accounting Profession, *Journal of Business Ethics*, Vol.15, pp:219-226
- Nielson, L. and Frost, L., (1996), 'Children and the Convention: The Danish debate', in: Freeman, M., (1996), *Children's Rights: A comparative perspective*, Dartmouth, Aldershot
- Nietzsche, F., (1964), 'On Truth and Falsity in their Extramoral Sense', *The Complete Works of Friedrich Nietzsche Vol. II Early Greek Philosophy and Other Essays*, Mugge, M.A. (trans), Russell & Russell, New York
- Oestreich, B., (1998), *Metaphors and Similes for Yahweh in Hosea 14:2-9 (1-8): A Study of Hoseanic Pictorial Language*, Peter Lang, Frankfurt am Main
- Ogborn, J. and Martins, I. (1996), "Metaphorical understandings and scientific ideas", *International Journal of Science Education*, Vol. 18 No. 6, p.631-652.
- OH Cards, (2002), www.oh-cards.com
- Onken, J., Hastie, R. and Revelle, W., (1985), 'Individual differences in the use of simplification strategies in a complex decision-making task', *Journal of Experimental Psychology: Human Perception and Performance*, 11, 14-27
- Open Systems Group, (1984), (eds.), *The Vickers Papers, A collection of papers by Sir Geoffrey Vickers*, Harper and Row, London
- Open Systems Group (eds.), (1985), *Systems Behaviour*, (3rd Ed.), Harper & Row, London.
- Ortony, A., (1979a), 'Beyond literal similarity', *Psychological Review*, 86, 161-180
- Ortony, A., (1979b), (ed.), *Metaphor and Thought*, Cambridge University Press, Cambridge
- Padsakoff, P.M., Williams, L.J., and Tudor, W.D., (1986), 'Effects of organizational formalization on alienation among professionals and nonprofessionals', *Academy of Management Journal*, 29, 820-31
- Parry, M., (1992), 'The Children Act 1989: a conflict of ideologies?', in Parry, M., (ed.) (1992), *The Children Act 1989: Conflict and Compromise*, Studies in Law, Hull University Law School, pp: 1-20
- Perrow, C., (1984), *Normal Accidents*, Basic Books, New York

- Pheyse, D.C., (1993), *Organizational Cultures: Types and Transformations*, Routledge, London
- Pollio, H.R., (1996), 'Boundaries in Humour and Metaphor', in: Mio, J.S. and Katz, A.N., (eds.), *Metaphor: Implications and Applications*, Lawrence Erlbaum Associates, New Jersey
- Powney, J. and Watts, M., (1987), *Interviewing in Educational Research*, Routledge and Kegan Paul, London
- Prescott, P.A., (2002), www.antique-locks.com/bramah.htm
- Prévost, P., 1976, "'Soft" systems methodology, functionalism and the social sciences', *Journal of Applied Systems Analysis*, 5 (1)
- Pugh, D.S. and Hickson, D.J., (1976), *Organizational Structure and its Context: The Aston Program*, D.C. Heath, Lexington, MA
- Rahman, M.A., (1991), 'The Theoretical Standpoint of PAR', in: Fals-Borda, O. and Rahman, M.A. (ed.), (1991), *Action and Knowledge: Breaking the monopoly with participatory action-research*, Apex Press, New York
- Raitt, R.A., (1979), 'OR and science', *Journal of the Operational Research Society*, 30, 835-836
- Raman, E., (1989), *Saga Cards*, Moritz Egetmeyer, Kirchzarten
- Ransom, J.C., (1950), 'William Wordsworth: Notes toward an Understanding of Poetry', in: *Kenyon Review*, 12, (1950); quoted by Beardsley, M.C., (1962), 'The Metaphorical Twist', in: *Philosophy and Phenomenological Research*, 22, (1962)
- Rawls, J., (1955), Two Concepts of Rules, *Philosophical Review*, Vol. 64, pp:3-32
- Reason, P., (1991), Editorial, *Collaborative Inquiry*, 4: 3
- Reason, P. (ed.), (1994), *Participation in Human Inquiry*, Sage, London
- Reddy, M., (1969), 'A Semantic Approach to Metaphor', *Papers from the Fifth Regional Meeting*, Chicago Linguistic Society, pp:240-215, cited in: Aarts, J.M.G. and Calbert, J.P. (1979), *Metaphor and Non-Metaphor: The Semantics of Adjective-Noun Combinations*, Max Niemeyer Verlag, Tübingen
- Ricoeur, P., (1978), *The Rule of Metaphor: Multi-disciplinary studies of the creation and meaning in language*, Czerny, R., McLaughlin, K. and Costello, J., (trans), Routledge & Kegan Paul, London
- Robson, C., (1993), *Real World Research: a Resource for Social Scientists and Practitioner-Researchers*, Blackwell, Oxford

- Roche, J. and Briggs, A., (1990), 'Allowing children a voice: A note on confidentiality', *Journal of Social Welfare Law*, No.3, 1990, pp: 178 192
- Rodger, M.A. and Edwards, J.S., (1989), 'A Problem-driven Approach to Expert System Development', *Journal of the Operational Research Society*, 40, 12, 1069-77, cited in: Finegan, A.D., (1995), www.bf.rmit.edu.au/~andrewf/fuzzyssm/fuzzyssm.htm
- Rodham, H., (1973), 'Children under the law', *Harvard Educational Review*, 43 (1973) p:487
- Roediger, H.L., (1980), 'Memory metaphors in cognitive psychology', *Memory & Cognition*, 8, 231-246
- Roethlisberger, F. J. and Dickson, W. J., (1939), *Management and the Worker*, Harvard University Press, Cambridge
- Romm, N.R.A., (1994), *Continuing Tensions between Soft systems Methodology and Critical Systems Heuristics*, Centre for Systems Studies, University of Hull, Working Paper No.5
- Romm, N.R.A., (1995a), 'Some anomalies in Ulrich's critical inquiry and problem-solving approach', in: Ellis, K., et al (eds.), (1995), *Critical Issues in Systems Theory and Practice*, Plenum, New York
- Romm, N.R.A., (1995b), 'Knowing as intervention: reflections on the application of systems ideas', *Systems Practice*, 8, 137-167
- Rosenhead, J., (1976), 'Some further comments on "The Social Responsibility of OR"', *ORQ*, 17:265.
- Rosenhead, J., (1981), 'OR in urban planning', *Omega*, 9:345
- Rosenhead, J., (1986), 'Custom and practice', *Journal of the Operational Research Society*, 37, 335-343
- Rosenhead, J., (1989), 'Introduction: Old and new paradigms of analysis', in: Rosenhead, J., (ed.), *Rational Analysis for a Problematic World*, Wiley, Chichester.
- Runyan, W.M., (1981), 'Why did Van Gogh cut off his ear? The problem of alternative explanations in psychobiography', *Journal of Personality and Social Psychology*, 40, 6, 1070-1077, cited in: Brewerton, P. and Millward, L., (2001), *Organizational Research Methods: A Guide for Students and Researchers*, Sage, London
- Salaman, G., (1983), 'Roles and Rules' in: Salaman, G. and Thompson, K. (eds.), 1983, *Control and Ideology in Organizations*, MIT Press, Cambridge

- Saltsman, E., (2002), 'Light: Wave or Particle?',
www.geocities.com/CapeCanaveral/7997/light.html
- Sapir, J.D., (1977), 'The Anatomy of Metaphor' in: Sapir, J.D. and Crocker, J.C., (eds), (1977), *The Social Use of Metaphor: Essays on the Anthropology of Rhetoric*, University of Pennsylvania Press, Pennsylvania
- Sapir, J.D. and Crocker, J.C., (eds), (1977), *The Social Use of Metaphor: Essays on the Anthropology of Rhetoric*, University of Pennsylvania Press, Pennsylvania
- Saunders, M.N.K., Lewis, P. and Thornhill, A., (2000), *Research Methods for Business Studies*, (2nd ed.), Prentice Hall, Harlow
- Schall, M.S., (1983), 'A communication-rules approach to organizational culture, *Administrative Science Quarterly*, 28, 557-81, cited in: Mills, A.J. and Murgatroyd, S.J., (1991), *Organizational Rules: A Framework for Understanding Organizational Action*, Open University Press, Milton Keynes
- Scheffler, I., (1979), *Beyond the Letter: A Philosophical Inquiry into Ambiguity, Vagueness and Metaphor in Language*, Routledge & Kegan Paul, London
- Schein, E.H., (1988), *Organizational Psychology*, (3rd Ed.), Prentice-Hall, Englewood Cliffs
- Schoderbek, P.P.; Schoderbek, C.G. and Kefalas, A.G., (1990), *Management Systems: Conceptual Considerations*, (4th Ed.), BPI Irwin, Homewood.
- Schön, D.A., (1972), 'Generative Metaphor: A Perspective on Problem-Setting in Social Policy', in: Ortony, A., (1979b), (ed.), *Metaphor and Thought*, Cambridge University Press, Cambridge
- Shaw, M.L.G. and Gaines, B.R., (1986), 'Interactive Elicitation of Knowledge from Experts', *Future Computing Systems*, 1 (2), 151-90, cited in: Finegan, A.D., (1995), www.bf.rmit.edu.au/~andrewf/fuzzyssm/fuzzyssm.htm
- Shaw, M.L.G. and Gaines, B.R., (1987), 'An Interactive Knowledge Elicitation Technique using Personal Construct Technology', In: Kidd, A.L. (ed), *Knowledge Acquisition for Experts Systems: A Practical Handbook*, Plenum Press, New York, cited in: Finegan, A.D., (1995), www.bf.rmit.edu.au/~andrewf/fuzzyssm/fuzzyssm.htm
- Shibles, W.A., (1971), *Metaphor: An Annotated Bibliography and History*, The Languages Press, Wisconsin
- Shibles, W.A., (1972), (ed.), *Essays on Metaphor*, The Language Press, Wisconsin

- Sisson, D., (1999), www.philosophie.com/design/metaphors.html
- Smelser, N., (1988), *Handbook of Sociology*, Sage, Newbury Park Fineman, S and Gabriel, Y, (1996), *Experiencing Organizations*, Sage, London
- Softor.html, (1998), 'Soft Systems Methodology', *Soft OR*, <http://mscmga.ms.ic.ac.uk/jeb/or/softor.html>
- Stanford, W.B., (1936), *Greek Metaphor: Studies in Theory and Practice*, Blackwell, Oxford
- Starkey, K., (1996), 'Introduction: Part 1' , in: Starkey, K., (1996), *How Organizations Learn*, Thomson Business Press, London
- Sternberg, R.J., and Nigro, G., (1983), 'Interaction and analogy in the comprehension and appreciation of metaphors', *Quarterly Journal of Experimental Psychology Human Experimental Psychology*, 35A, 17-38
- Sterniczuk, H., (1988), Institution strategies for rule formation and social order in business organizations – A comparative analysis of communist and market systems organizations, A paper presented at the Annual Academy of Management Meeting, Anaheim, California cited in: Mills, A.J. and Murgatroyd, S.J., (1991), *Organizational Rules: A Framework for Understanding Organizational Action*, Open University Press, Milton Keynes
- Stowell, F.A. and West, D., (1990), 'The contribution of systems ideas during the process of knowledge elicitation', in: Flood, R.L.; Jackson, M.C. and Keys, P., (eds), *Systems Prospects: The Next Ten Years of Systems Research*, Plenum Press, New York, cited in: Finegan, A.D., (1995), www.bf.rmit.edu.au/~andrewf/fuzzyssm/fuzzyssm.htm
- Strauss, A.; Scatzmann, L.; Erlich, D; Bucher, R. and Sabshin, M., (1978), 'The Hospital and its negotiated order', in: Salaman, G. and Thompson, K., (1978), (eds.), *People and Organizations*, Open University Press, Milton Keynes
- Sudnow, D., (1978), 'Normal crimes – Sociological features of the penal code in a public defenders office', in: Salaman, G. and Thompson, K., (1978), (eds.), *People and Organizations*, Open University Press, Milton Keynes
- Sundstroem, G.A., (1989), 'Information search and decision-making: The effects of information displays', in: Montgomery, H. and Svenson, O., (1989), (eds.), *Process and Structure un Human Decision-Making*, Wiley, London
- Sutton, D.C., (1995), The enterprise design framework meets the system of systems methodologies, *Systems Practice*, 8, 409-439
- Swinburne, R., (1992), *Revelation: From Metaphor to Analogy*, Clarendon Press, Oxford

- Thomas, A. and Lockett, M., (1979), 'Marxism and systems research: Values in practical action', in: Ericson, R.F., (ed.), *Improving the Human Condition*, SGSR, Louisville, pp.284-293.
- Thompson, S., (1996), 'Politics without Metaphors is Like a Fish without Water', in: Mio, J.S. and Katz, A.N., (eds.), *Metaphor: Implications and Applications*, Lawrence Erlbaum Associates, New Jersey
- Timmermans, D., (1993), 'The impact of task complexity on information use in multi-attribute decision making', *Journal of Behavioural Decision Making*, 6, 95-111
- Torrington, D. and Hall, L., (1995), *Personnel Management: HRM in Action* (3rd Ed.), Prentice Hall, London
- Tourangeau, R. and Sternberg, R.J., (1981), 'Aptness in metaphor', *Cognitive Psychology*, 13, 27-55
- Tourangeau, R. and Sternberg, R.J., (1982), 'Understanding and appreciating metaphors', *Cognition*, 11, 203-244
- Tsoukas, H., (1992), Panoptic reason and the search for totality: A critical assessment of the critical systems perspective, *Human Relations*, 45, 637-657
- Turbayne, C.M., (1962), *The Myth of Metaphor*, Yale University Press, New Haven
- Tversky, A., (1977), 'Features of similarity', *Psychological Review*, 84, 327-352
- Ulrich, W., (1983), *Critical Heuristics of Social Planning*, Haupt, Berne
- Ulrich, W. (1996), *A Primer to Critical Systems Heuristics for Action Researchers*, Centre for Systems Studies, Hull.
- UN, (1989), The United Nations Convention on the Rights of the Child, Adopted 20 November 1989, Appendix 5 in: Rosenbaum, M. and Newell, P., (1991), *Taking Children Seriously: A proposal for a children's rights commissioner*, Calouste Gulbenkian Foundation, London
- University of Florida, www.clas.ufl.edu/CLAS/Departments/Rewired/MET.html, (2002), 'Metaphor'
- van Bueren, G., (1991), 'The UN Convention on the Rights of the Child', *Journal of Child Law*, January/March 1991, pp: 63-66
- Vickers, G., 1965, *The Art of Judgement*, Chapman and Hall. London, (Reprinted 1983, Harper and Row, London

- von Bulow, I., 1989, 'The bounding of a problem situation and the concept of a system's boundary in soft systems methodology', *Journal of Applied Systems Analysis*, 16, 35-41, cited in: Checkland, P. and Scholes, J., 1990, *Soft Systems Methodology in Action*, Wiley, Chichester
- Weber, M., (1947), *The Theory of Social and Economic Organization*, translated by Henderson, A.M. and Parsons, T., (eds.), Oxford University Press, New York
- Weick, K.E., (1979), *The Social Psychology of Organising*, Addison-Wesley, Massachusetts
- Weil, S., (1998), Rhetorics and realities in public service organizations: Systemic practice and organizational learning as critically reflexive action research (CRAR), *Systemic Practice and Action Research*, 11, 37-62
- Weinberg, G.M., (1975), *An Introduction to General Systems Thinking*, Wiley, New York.
- Weinrich, H., (1967), 'Semantik der Metapher', *Folia Linguistica*, 1, pp:3-17
- Wellek, R. and Warren, A., (1956), 'Image, Metaphor, Symbol, Myth', in: *Theory of Literature*, 3rd Ed., Harcourt Brace and World, New York
- Wells, H.W., (1924), *Poetic Imagery*, Columbia University Press, New York
- White, D.J., (1970), A critique of 'Research Methodology in the Management Sciences' by Begeed-Dov, A.G. and Klein, T.A., *Operational Research Quarterly*, 21, 327-334
- White, R.M., (1996), *The Structure of Metaphor: The Way the Language of Metaphor Works*, Blackwell, Oxford
- Whitmore, E., (1994), 'To Tell the Truth: Working with oppressed groups in participatory approaches to inquiry', in: Reason, P., (ed.), (1994), *Participation in Human Inquiry*, Sage, London
- Whyte, W.F., (1943), *Street Corner Society*, University of Chicago Press, Chicago
- Whyte, W.F., (1991), (ed.), *Participatory Action Research*, Sage, Newbury Park
- Whyte, W.F., Greenwood, D.J. and Lazes, P., (1991), 'Participatory Action Research: Through practice to science in social research', in Whyte, W.F., (ed.), (1991), *Participatory Action Research*, Sage, Newbury Park
- Wiener, N., (1948), *Cybernetics*, Wiley, New York
- Wiener, N., (1950), *The Human Use of Human Beings*, Eyre and Spottiswoode, London

- Williams, M., (1997), 'Critical theory, Carl Jung, and symbo-construction in soft systems rich pictures', in: Stowell, F. A. et al, (1991), (eds.), *Systems for Sustainability: People, organizations and environments*, Plenum, New York
- Willmott, H., (1989), 'OR as a problem situation: from Soft Systems Methodology to critical science', in: Jackson, M.C.; Keys, P. and Cropper, S.A., (eds.), *OR and the Social Sciences*, Plenum, New York
- Winn, L., (1990), (ed.), *Power to the People*, Kings Fund Centre, London
- Winsor, R.D., (1996), "Military perspectives of organizations", *Journal of Organizational Change Management*, Vol. 9 No. 4, pp:34-42
- Young, R.M., (1985), *Darwin's Metaphor: Nature's place in Victorian culture*, Cambridge University Press, Cambridge
- Zimmerman, D., (1978), 'The practicalities of rule use', in: Douglas, J., (1978), (ed.), *Understanding Everyday Life*, Routledge and Keegan Paul, London, cited in: Mills, A.J. and Murgatroyd, S.J., (1991), *Organizational Rules: A Framework for Understanding Organizational Action*, Open University Press, Milton Keynes

1 Metaphor

What is a metaphor? It is such an essential part of the way I make sense of myself, my world, and my relationship with 'my' research, that it would be counterlogical not to include my own take on metaphor, my belief in its power and its potential for the research process. Describing some of the many ways in which metaphor can be explained, and a brief summary of the two main standpoints with regard to its usefulness (or not) as a serious tool for discovery. Illustrating my own belief in the ability of metaphor to make the abstract visible, its capacity to make the unfamiliar familiar, and its effectiveness as a legitimate means of generating insight and organizing knowledge.

1.1 Introduction

The first question I will address is simply: what is a metaphor? I shall begin by explaining why any definitive answer to this question remains elusive. I will go on to describe some, but not all, of the ways in which metaphor can be explained, and provide an overview of the two main positions regarding its usefulness (or not). These positions are, firstly, that metaphor is nothing but a tool for literary embellishment and, secondly, that metaphor is central to our thinking and sense making processes. It is the latter view to which I subscribe.

I will continue to explore metaphor using vehicles such as a 'standard' dictionary definition of the term, an open definition of the concept, and a more controversial definition, that of grammatical metaphor, which I feel exemplifies a cautionary note for anyone who's concern is the interpretation of metaphor. I then raise the questions:

- how might we identify metaphor?
- what are the possible functions?
- when do we use metaphor what happens when we use metaphor? and
- why use metaphor?

The following quotes illustrate a possibility for recognition of the importance of metaphor:

The most fruitful modern criticism is a rediscovery and recovery of the importance of metaphor.

C. Brooks (cited in: Shibles, 1971)

The greatest thing by far is to be a master of metaphor. It is the one thing that cannot be learned from others. It is the mark of genius.

Aristotle (cited in: Shibles, 1971)

1.2 Metaphor

Metaphor is a way of understanding something. Many times understanding can be found by:

...seeing one object as similar to another in a way that was not previously noticed, in other words, by making up and using a novel analogy [...]. An analogy is of course, a type of metaphor

(University of Florida, 2002)

The concept and study of metaphor is certainly nothing new. One of the earliest theories of metaphor was proposed by Aristotle (reported in: Lappin, 1981). In the *Poetics* Aristotle says:

A metaphor consists in giving the thing a name that belongs to something else; the transference being either from genus to species, or from species to genus, or from species to species, or on grounds of analogy

(Bywater, 1946 trans.)

Writing in 1936, Stanford describes how there were already multitudes of dissertations on the metaphorical usages of both Greek and Latin authors.

According to Bréal (1964) 'the subject of metaphor is inexhaustible'. So, as Gunton (1988) points out, perhaps it is not so surprising that it is not easy to tender a satisfactory definition of metaphor. This point can be illustrated by referring to Dalferth (1981), who cites a book published in 1964 which listed 125 definitions.

There are, then, essentially two schools of thought concerning metaphor. One tradition sees metaphor as an 'anomaly of language', the second, as central to the 'task of accounting for our perspectives on the world: how we think about things, make sense of reality, and set the problems we later try to solve' (Schön, 1972). One is concerned with the metaphorical use of individual words, the other with the actual use to which people put metaphor (White, 1996).

Metaphor is frequently trivialised as nothing more than linguistic embellishment, somewhat a matter of style over content; a 'figure of speech' serving only to enrich the superficial, at the same time bringing nothing to the actual substance of what it is that is to be communicated. As such, metaphor has always been one of the central problems of philosophy. Philosophers such as Descartes, Kant or Popper were all highly critical of metaphor - arguably odd perhaps, given that 'a philosophical treatise

has never been written which did not depend upon the use of metaphor' (Berggren, 1959). Locke for example, denounced the use of figurative language:

But yet, if we would speak of things as they are, we must allow that.... all the artificial and figurative application of words eloquence hath invented, are for nothing else but to insinuate wrong ideas, move the passions, and thereby mislead the judgement, and so indeed are perfect cheat.

(Locke, 1961)

In direct contrast to this is the idea that metaphor is not just ornamentation or embellishment (for example, Wellek and Warren, 1956; Goatly, 1997), but that metaphor is in fact a central feature of both common sense and scientific thought. Metaphor is a way to new knowledge (Backman, 1991). This centrality to scientific thought is by no means restricted to one perspective on scientific activity but instead 'involves a multiplicity of approaches' (Cameron, 1976). Further, Hesse (1993) asserted that concept-formation in the sciences is itself 'essentially metaphorical'.

According to Cameron, metaphor not only highlights and explains the core of scientific theorizing, but it can also be harnessed in the analysis of our understanding of scientific activity in sociological terms and how science influences the 'enviroming' society (Cameron, 1976).

1.2.1 What is a metaphor?

Discussions of metaphor often appear superficial. However, according to Murry (1972) the investigation of metaphor is remarkably like the investigation of any of the

primary data of consciousness: 'it cannot be pursued very far without our being led to the borderline of sanity'. Metaphor is 'as ultimate as speech itself, and speech is as ultimate as thought' (Murry, 1972) – 'for, truths are merely metaphors which we forgot are metaphors' (Nietzsche, 1964).

According to Wells (1924), no strict definition of metaphor is possible, instead he considers, as a 'working test' (Brown, 1966), that a metaphor is 'the recognition of a suggestion of one concept by another dissimilar in kind but alike in some strong ungeneric characteristic'. However, notwithstanding the above we will begin this next section on metaphor with the dictionary definition of the term.

1.2.2 Dictionary Definition

There follows a prime example of a standard dictionary definition of the meaning of the term metaphor:

A figure by which a thing is spoken of as being that which it only resembles, as when a ferocious man is called a tiger.

(Chambers Twentieth Century Dictionary, 1972)

From a definition such as this we can see that a metaphor has three basic constituents, two terms from separate domains - man and tiger – plus in this case one of a bundle of shared features – ferocity. These components allow the definition of a metaphoric process! beginning with one term and then moving to another by way of a cluster of implicit or stated intermediary features (Sapir, 1977), see figure 1.

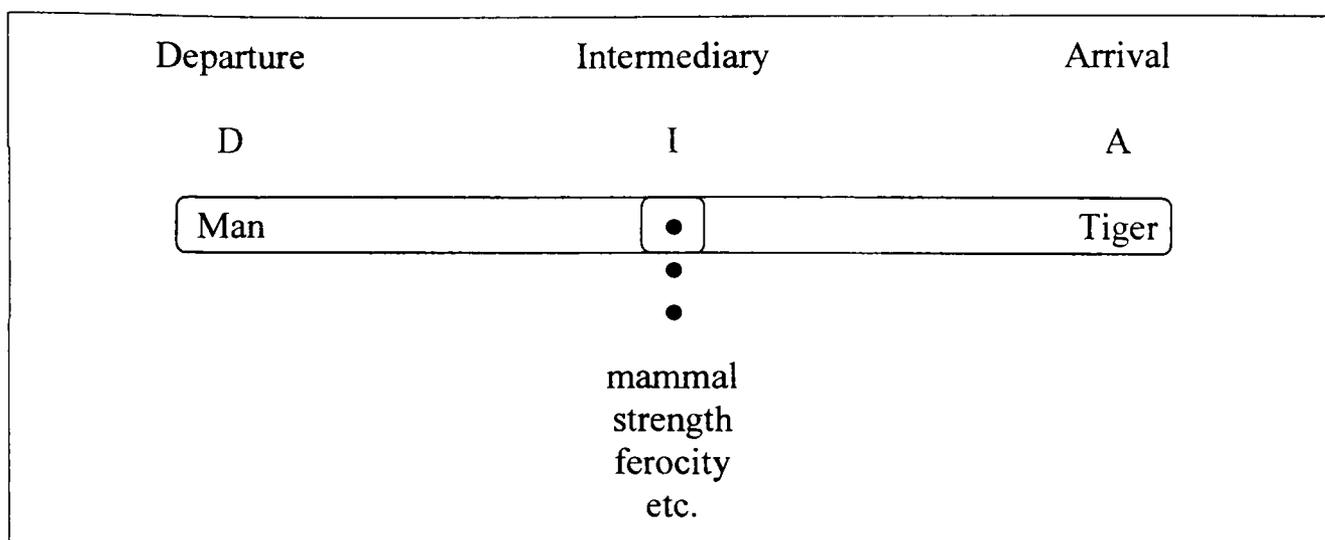


Figure 1 Components of a metaphoric process

Sapir (1977) further explains that the features acting as intermediaries can be divided into two approximate categories. The first will contain a number of features having to do with ‘a strict definition of the two terms’. The second, any number of more particular features indicating ‘shared conceptual qualities and visual and other sensual similarities’.

According to Allbritton (1995), various authors have portrayed metaphor in several different ways as: assertions of similarity between topic and vehicle domains (Tversky, 1977; Ortony, 1979a), interactions of topic and vehicle domains (Black, 1981; Sternberg & Nigro, 1983; Tourangeau & Sternberg, 1981,1982), attributions of features from the vehicle domain to the topic domain (Gentner, 1983; Lackoff & Johnson, 1980), and, class-inclusion statements (Glucksberg, 1991; Glucksberg & Keysar, 1990). It can be argued that there is in actuality more than one type of metaphor, hence, these theories may have limited success in accounting for some metaphors – ‘...theories that do a good job of describing one kind of metaphor may not work as well for others’ (Allbritton, 1995).

Having begun by visiting a simplistic definition provide by a standard dictionary, we shall now turn our attentions to a more open definition of the concept of metaphor.

1.2.3 Open Definition

A more open definition of metaphor supports the assertion that metaphors are not simply rhetorical literary devices but are more fundamental to our comprehension of the world - not just the social world but the natural world too! We use metaphor whenever we make implicit or explicit assertions that A is (or is like) B. However, Denham (1990) makes the following assertion:

...by saying 'A is B', is not being logical, the identity of two different things being an impossibility, but neither is it antilogical. It is counterlogical; it introduces us to a world where the inevitable movement from cause to effect, the inevitable separation of one thing from another thing, no longer exist in the same way.

Denham (1990)

We do this by drawing comparisons between whole 'situations' and 'objects' even feelings rather than merely words or phrases. In other words, metaphor is the use of some word or phrase, situation or feeling in a context where it is literally inappropriate but nevertheless seems to make sense. Therefore, at its most basic level a metaphor:

...describes the use of a body of knowledge about one concept to understand or comment on a second concept.

(Sisson, 1999)

Metaphors then, are particularly potent when used to help understand a concept that is unfamiliar or aloof (Sisson, 1999), further, according to Parkhurst:

Any supreme insight is a metaphor.

(Parkhurst cited in: Shibles 1972).

Perhaps one of the greatest scientific discoveries of all time can be attributed to the use of metaphor as a serious mechanism for intellectual endeavour. It has been said that it is not too great an exaggeration that one of the two most substantial contributions to the intellectual output of the nineteenth century, along with *Das Kapital*, was *On the Origin of Species* (Young, 1985). ‘No work of our time has been so general in its influence’ wrote George Henry Lewes in 1868. Darwin set about demonstrating that the species barrier was not absolute: a belief which up until then traditional thought had held to be fact. He achieved this by way of a study focusing on the production of domesticated animals as an illustrative case that there was no limit to the changes that could be brought about over several generations by breeders. In other words, species are nothing more than well-marked varieties. Although this line of inquiry was secondary to his main concern – the task of explaining how new species came into being by natural means – ‘He tells us...that these studies provided the main path to the discovery of the theory and to its most effective exposition’ (Young, 1985). This in itself demonstrates some of the real potential of the power of metaphor as a serious tool for knowledge generation and, undermines the notion that metaphor is nothing more than a frivolous literary device.

Now, having introduced both a standard dictionary and more open definitions of metaphor, it is at this point that I would like to briefly touch upon a more controversial definition, and one that has come to be known as a ‘grammatical metaphor’.

1.2.4 Controversial Definition

This final definition of metaphor is perhaps, arguably, the most controversial, but nonetheless important. Metaphor can be defined as a process in which one grammatical category is analogised to another – this is termed ‘grammatical metaphor’ (for example see, E-201, 2000). To carry on with the previous example of Darwin’s work would provide us with the following grammatical metaphor: using ‘adaptation’ in place of ‘changing so as to become better adapted’. Immediately though we can see the danger of accepting such a substitution without question, for, in essence ‘adapt’ means to change, some animals may therefore change to be less well adapted.

I do not wish to explore this controversial definition further other than to raise attention to the possible pitfalls this may create (as above). Such pitfalls must be observed particularly when carrying out interpretations of metaphors as used by others to describe their viewpoint on any given situation.

So, having highlighted the problems inherent in the definition of what a metaphor is, where does this leave us? How do we identify a metaphor?

1.2.5 How do we identify a metaphor?

Mooij (1976) suggests that a notion common to many approaches to metaphor is that of the ‘strangeness or surprisingness of a metaphorical expression in context’. Mooij then goes on to provide several examples of this from other authors. Metaphors, according to Ransom (1950), introduce foreign objects into the situation. Henle (1958), states that ‘the outstanding characteristic of metaphor is the sort of shock which it produces’. Weinrich (1967) described metaphor as ‘a word which is contrary to the expectations raised by the context’ (Mooij, 1976). This is a point with which Swinburne would concur: ‘One comes to understand what is being said by noting its obvious inappropriateness...’ (Swinburne, 1992). This theme is further reflected in Aarts and Calbert (1979), who provide examples of metaphorical and non-metaphorical interpretations based upon a more formal notion offered by Reddy:

The spontaneous and intuitive feeling that a word is operating metaphorically is contingent upon the failure to find a referent for a given word within its ‘literal sphere of reference’.

(Reddy, 1969)

All these ideas appear to be consistent with Aristotle’s description of metaphor as a way of applying a strange word to an object (Stanford, 1936; Mooij, 1976).

However, Aarts and Calbert (1979) provide examples that illustrate how there are some complications, thus:

(1.1) a. an angry man : b. the man experiences anger

(1.2) a. an angry letter : b. *the letter experiences anger

(1.3) a. a sad tree : b. *the tree experiences sadness

In (1.1.a) angry is a normal, expected, and contextual descriptor for man, as is illustrated by the paraphrase (b). Similar paraphrases, however, are not possible for (1.2a) and (1.3a). Therefore, it would seem logical to conclude that these two examples are not dissimilar and that both demand a metaphorical interpretation. Notwithstanding this, intuition should lead us to realise that they are not of the same nature at all. Whereas (1.3) certainly requires a metaphorical reading – for it is somewhat strange, surprising, and, to some, no doubt foreign, (1.2) does not require such a reading. For letters are written by human beings, an ‘angry letter’ is one written by an angry person. In this case it is an indirect relationship between the adjective and the noun that provides a modification which, on the surface only, appears to provide some of the defining elements of what it is that constitutes a metaphor.

1.2.6 Functions of Metaphor

According to Allbritton (1995), the functions of metaphor are two fold. The ‘interpersonal function’ fosters intimacy between speakers and listeners (Cohen, 1979; Gibbs and Gerrig, 1989). For Gibbs and Gerrig this special function of metaphor may be ‘to highlight the common ground between participants in a conversation’. Metaphor also has a ‘cognitive function’. Metaphors may be responsible for ‘creating similarities between their topic and vehicle domains’ (Camac and Glucksberg, 1984; Kelly and Keil, 1987), performing the function of providing a framework for understanding a novel domain or for restructuring the understanding of a familiar, well-known domain. ‘This function is particularly evident in the realm of scientific theories’ (Allbritton, 1995). Allbritton suggests Roediger’s (1980) analysis

of metaphors forming the basis for theories of human memory provide some examples of this; wax tablets, phonographs, switchboards, and computers.

In another cognitive function Gentner and Gentner (1983) illustrate how the power of metaphor can be used to further understanding by harnessing different metaphors for the same topic. For example, how two different analogies for electricity – flowing liquid, or moving crowd of objects - can lead to differences in the way people understand and think about electrodynamics. Another example may be the understanding of light as waves and particles.

As light is particularly hard to study owing to its high speed, there are many questions about its nature still left unanswered. One such major question is over the remaining uncertainty regarding whether light is a wave or a particle. There is certainly evidence to support both cases, however, there is no conclusive proof that it can be classified as either one (Saltsman, 2002).

1.2.7 When do we use metaphor?

...in the light of recent psycholinguistic research, it is justified to claim that thought itself is metaphoric and that the organization of our mind is structured through metaphor.

(Backman, 1991)

We may not always know it, but we think in metaphor as part of a cognitive process that is in constant use (Lakoff, 1995; Grant & Oswick, 1996). We use metaphors continuously to describe things, people, places and situations, even though most of us do not realise this is the case. Traditionally, England is a seafaring nation, and as such

we use metaphors from our sea born heritage as a part of our everyday language. For example, our nation's economy is led by 'captains' of industry. When we encounter difficulties in our lives we are oft advised that 'battening down the hatches' and 'weathering the storm' is our best course of action. And, when we first go to join any organisation we are said to be learning the ropes, the first task a sailor would be given upon boarding ship.

We also use metaphor whenever we attempt to understand one element of experience in terms of another. For example we use it to help make sense of things at times of great distress. Like coming to terms with our reactions to the loss of a much loved family pet: for losing a pet is truly like losing a member of the family.

As a Yorkshire man born and bred, I grew up with a phrase I heard almost everyday: 'it's a bramah' – meaning it's great, it's a beauty or such like. It was not until just a few years ago that I learnt of the origin of the phrase. A Bramah was a very sophisticated lock invented by a fellow Yorkshireman of the same name.

Joseph Bramah patented his lock in 1784, and it was a milestone in the development of security locks. Bramah had recognized the inherent weaknesses of previous locks and designed a lock which, he believed overcame these weaknesses. His patent lock is a masterpiece, with 18 sliders offering over 479 million key differs (Prescott, 2002). This lock is still in existence and is owned by the Bramah lock company in London. It was so far ahead of all other contemporary designs that it became an icon for that which was truly outstanding. Thereafter, its name became applied (in Yorkshire!) to describe anything exceptional.

In other contexts we use metaphor when we want to convey the flavour of a complex situation or issue, or when time is of the essence, precluding a lengthier account. Metaphors play an important role in communicating complex ideas or concepts in a simple fashion (Weick, 1979). The following examples of this kind of use for metaphor are 'real world' examples taken from a previous research project (See: Clayton, 1996; Clayton & Gregory, 1997a, 1997b, 2000). The project was set in a prison and participants used the following metaphors to describe succinctly their own perceptions of the working environment in which they operated on a day to day basis.

The first of the metaphors used demonstrates the belief that all the elements one might require to do one's job effectively are present, if only they could be easily found, brought together and co-ordinated in an effective manner – in other words, 'working here is like *trying to knit fog!*' The incapacity to knit simultaneously the precise combination of elements essential to the attainment of any objective is further exacerbated by the circumstances echoed in the next metaphor: 'you never know where you stand, they are continually *moving the goal posts!*' Both internal and external agencies used this metaphor in relation to the 'rules and regulations' of the prison. The situation faced is one of not knowing what constitutes a 'goal'. The goal posts are continually moving in response to changes in the policy, personalities, and environment of the prison. Discovering what constitutes the goal posts at any given time is a matter of trial and error, and dogged persistence.

In contrast to this imagery, but suggesting some of the same kinds of problems, the third metaphor that was used described working at the prison as akin to '*swimming in treacle*'. This was perhaps the least optimistic of the metaphors utilized. As

perceived by an individual faced with the task of working within the prison, the situation involves him/her (the swimmer) trying to achieve an objective, and the treacle is the viscous melange that constitutes the working environment. A vicious circle of events sees the individual in ever thickening treacle with less and less inclination to swim against the viscous tide.

Having provided some definitions of metaphor and some examples of when they are harnessed, the next question must be: what happens when we use metaphor?

1.2.8 What happens when we use metaphor?

Lackoff (1995a, 1995b, 1996) draws a distinction between ‘deep’ and ‘superficial’ metaphors: deep, in the sense that for the most part they are used without being noticed and, that they shape our very understanding of our world. Lackoff contrasts these deep metaphors with superficial metaphors, ‘which are only of marginal interest but which often lead us astray’ (Lackoff, 1995a, 1995b, 1996).

This dissimilarity is further explained by means of the following example. Lakoff begins by asking us to consider the quote:

Senator Phil Gramm told a college commencement audience that the social safety net erected by government by the New Deal and the Great Society had become a ‘hammock’ that is robbing the country of freedom and virtue

(International Herald Tribune, May 8, 1995)

He uses this to explain that both the safety net metaphor and the hammock metaphor are examples of what he calls superficial metaphors. That is to say that they are consciously conjured up with the specific intent of evoking a vivid image that ‘organizes much deeper metaphorical concepts’. The safety net metaphor assumes as part of its wider context an accompanying image of the ordinary citizen on a tightrope. In this case the tightrope represents the straight and narrow, or a moral path, occupied by the hardworking citizen. Of course, as Lakoff explains, the thing about tightropes is that only the very skilled stand any real chance of remaining aloft indefinitely, those who are less adept are bound to fall off at some time. So, if walking the tightrope is working, then, falling off is losing your job - for whatever reason. The aforementioned safety net represents the temporary means of support, until such time as you can haul yourself back up on to the tightrope. The ‘physical’ support of the net is the financial and other support available to the normally hardworking individuals who might otherwise not survive without it. By his own admission, not all this is conscious, but it is implied and it is what gives the safety net metaphor its force. The safety net metaphor may be superficial, but ‘its power consists in evoking a worldview beyond itself’. In this worldview, the people who come to rely on the safety net are hardworking, moral citizens who walk the straight and narrow.

So, when Senator Gramm substitutes the hammock for the safety net, he could not be further from simply replacing one image with another that looks not too dissimilar. For, changing the metaphor has resulted in a change of ‘prototypes’ – commanding an entirely different worldview. For it follows that those who would make use of the hammock are by their very nature lazy and not at all interested in working. In

addition, hammocks are not a necessity but a luxury. Out with the safety net means out with the tightrope, the aspiration to walk it successfully and, the 'morality' of following the straight and narrow. As Lakoff himself explains:

The typical person who relies on social programs is no longer moral, skilled and energetic. He [sic] is unskilled and lazy, and his laziness makes him immoral. The moral implication is clear: the government shouldn't be supplying the luxury of hammocks to lazy people. It just encourages them in their laziness.

(Lakoff, 1995a)

Although the safety net and hammock metaphors describe complex worldviews via a single image, they are still superficial metaphors, reliant on much deeper, and therefore, less obvious metaphors for their true power. If we are truly to understand these images it is the deeper metaphorical system that must be understood.

Metaphor is an instrument that can be used to help construct a model of reality. As means of undermining an inadequate interpretation and to pave the way for a new and perhaps more fruitful interpretation, metaphor belongs not to the logic of justification and proof, but to the logic of discovery (Ricoeur, 1978).

It has been suggested that although there may seem to be a great distance, at least in some abstract conceptual sense, between metaphor and humour, during observations of the role of metaphor in industrial consulting groups (Mawardi, 1959), it proved to be difficult at times to determine a dividing line between remarks intended to be funny and those raised with the specific intention of dealing with the present problem in a metaphorically useful and meaningful way (Pollio, 1996).

I have no doubt of the power of metaphor to deliver. Metaphorical descriptions certainly provide a chunk of information that is more easily managed than the messy issues they themselves describe. But, attached to this belief is a worthy note of caution. One of the most interesting aspects of metaphors is that they can produce a kind of one-sided insight. On one hand, however appropriate a good metaphor may be, on the other, there may be something inappropriate about it (Turbayne, 1962). Highlighting certain interpretations in this way without doubt forces others into the background. In the same way that asserting an individual is a lion, may bring to the fore his bravery, strength, regal air or, indeed his ferocity, it simultaneously relegates other pertinent characteristics to the background, for, he might also be a chauvinist pig, a devil, or a saint, a bore, or a recluse. It may quite simply mean that he spends all his time lazing around and preening himself, letting the 'women' do all the work, then turning up at the last minute to claim his disproportionate and more choice share of the rewards (Morgan, 1986).

More formally perhaps, Oestreich (1998) provides one example, described as more or less typical of the other metaphor and similes in the book of Hosea (Hos 14:5-9). The example illustrates how 'the variety of associations, not all of which necessarily exclude each other, reveals the continuing problem of interpretation of metaphors' Oestreich (1998). 'I am like an evergreen cypress'. Different interpretations have been offered. Is such a statement intended to communicate that the tree provides shadow and protection, freshness vigor and fertility? In essence, the idea of the tree of life, or is the image of the tree a representation of stability, durability and resistance Oestreich (1998)?

In actuality metaphors can have either positive or negative connotations. Perhaps, on the positive side the lion is indeed brave, strong and fierce. Equally as likely though, he is a lazy so and so! So, whenever we use metaphor as a means of communicating or imparting information a qualifying statement is required as to its intended portrayal as a positive or negative image.

Sissons (1999) offers a further note of caution. Based on the premise that the best evidence for the power of metaphor is the actuality that we use them unconsciously, for the most part, we do not stop to think. The constant use of metaphor to generate meanings can leave us at the mercy of 'those who are skilled at packing subtle hints into language: advertisers.' Sissons goes on to provide a particularly relevant comment from George Lakoff and Mark Turner:

For the same reasons that schemas and metaphors give us power to conceptualize and reason, so they have power over us. Anything that we rely on constantly, unconsciously, and automatically is so much a part of us that it cannot be easily resisted, in large measure because it is barely even noticed. To the extent that we use a conceptual metaphor, we accept its validity. Consequently, when someone else uses it, we are predisposed to accept its validity. For this reason, conventionalised schemas and metaphors have persuasive power over us.

(Lakoff and Turner, 1989)

In addition, the interpreter of metaphorical explanation cannot simply rely upon routine - ingenuity is a constant requirement (Scheffler, 1979). Insights gained via previous uses and interpretations of a particular metaphor cannot simply be transported indiscriminately to new (even though not dissimilar) contexts. Any possible similarities need to be thoroughly researched and analyzed, which in turn should lead to the acceptance of those found to be appropriate and the rejection of the remainder.

1.2.9 Why use metaphor?

Metaphor is a powerful tool for understanding our world. As the aim of the preliminary data collection phase in my case study was to uncover perceptions of the stakeholders involved in extant policy making processes, it was felt that metaphors should be used as an essential element of the mechanisms for gathering (and later analysing) data, thereby enhancing the richness of the information collected. Morgan (1986) demonstrates how the use of metaphor can be harnessed as a means of enhancing our capacity for creative yet disciplined thought and, in turn, our ability to find new ways of organising and dealing with problematics. Certainly, metaphor and analogy are important in both scientific and everyday common-sense thinking, their most dramatic effect comes in ordinary reasoning (Lackoff, 1995a). They have been described in an educational context as ‘powerful resources for the teaching and popularisation of science’ (Ogborn and Martins, 1996). ‘The history of philosophy should be written as that of seven or eight metaphors’ (Hume, 1962). Indeed, the ‘big five’ metaphors - machine, organic, neurocybernetic, cultural, and political metaphors are said to have been able to capture, at least at a general level, ‘almost all management and organization theory’ (Flood and Jackson, 1991).

A metaphor can:

...evoke a broad array of elements that comprise our knowledge of something...and can accomplish this evocation with the smallest of cues. With a small element, we have a cue to a larger concept, and we expand that cue into a structure of elements and relationships.

(Sissons, 1999).

The above can be demonstrated by the centrality of metaphors to political discourse. The political world is value laden and both cognitively and perceptually disconnected from the immediacy of everyday experience (Graber, 1993).

The dynamics and consequences of politics are neither tangible, self-evident, nor simple. A major function of political metaphors is to link the individual and the political by providing a way of seeing relations, reifying abstractions, and framing complexity in manageable terms.

(Thompson, 1996)

Further, it has been argued that imagery and metaphor alone properly represent the flux of reality (Hulme, 1962). This may be of particular relevance given the later use of SSM in Mode 2 – ‘conscious reflections upon interactions with the *flux of events and ideas*’ Checkland and Scholes, 1990 emphasis added) – as a means of interacting with the practical aspects of my research. They are central to the way we think about the world around us (Lakoff and Johnson, 1980), with research conducted in a wide variety of fields demonstrating the formative influence of metaphor (Morgan, 1986). According to Ogborn and Martins (1996) this belief, that metaphors are not just rhetorical literary devices but are central to the complexion of language and of our understanding of the world, can be tracked to Black (1962, 1979) the developer of the interactive view of metaphor. According to this view metaphors work by applying a system of ‘associated implications’ to the principal (literal) subject of the metaphor that are characteristic of the metaphorical secondary subject (Boyd, 1979). This interactive view of metaphor is that it is the cognitive interaction between the components of a metaphor which give it its force (Ogborn and Martins, 1996) - a view that has been further developed by Lakoff and Johnson (Lakoff and Johnson, 1980; Johnson, 1987; Lakoff, 1987). Lakoff and Johnson (1980) use the term

'conceptual metaphor' as a means of distinguishing metaphor as a kind of utterance and metaphor as applied in the realm of thought.

....By proposing that we see one thing in terms of another, metaphor is essentially equivalent to the individuation of a (metaphorical) point of view, from which we are invited to see part of (historical) reality For example, the metaphor 'the earth is a spaceship' invites us to see the earth from a point of view that is defined by the interaction (to use Black's terminology) between the concepts *earth* and *spaceship*. It should be observed, next, that this view of metaphor is in fundamental agreement with the main inspiration of Kantian transcendentalism – and this is why metaphor is a continuation of scientific cognitive ideals, rather than being in opposition to them.

(Ankersmit, 1994)

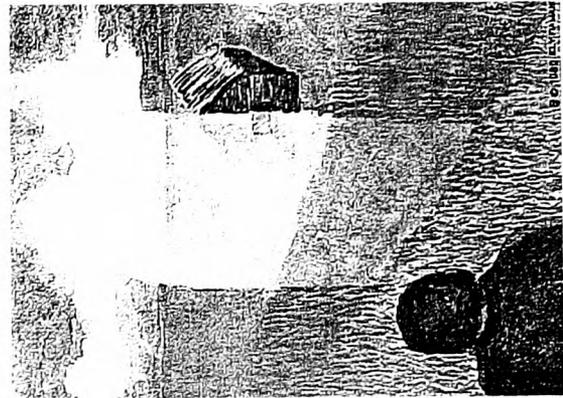
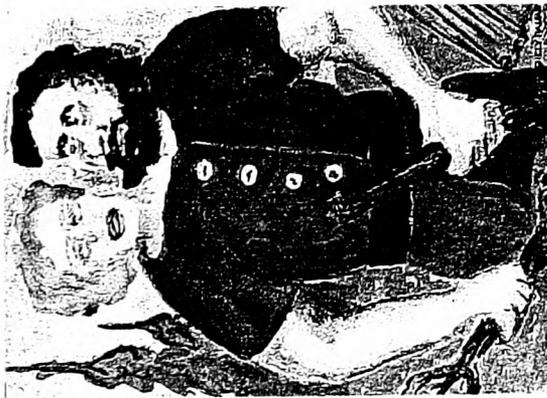
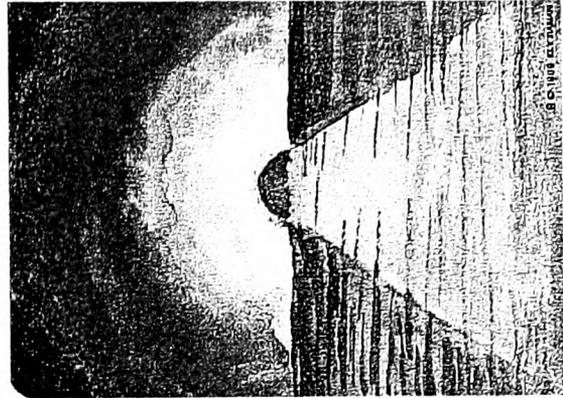
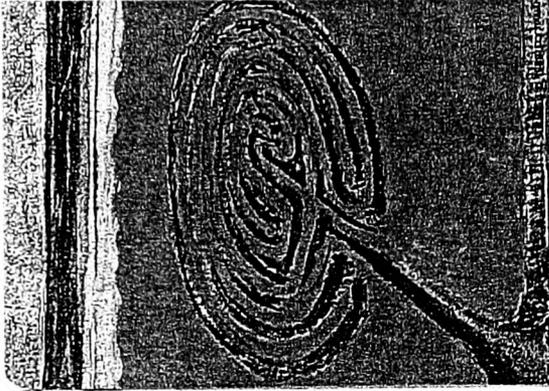
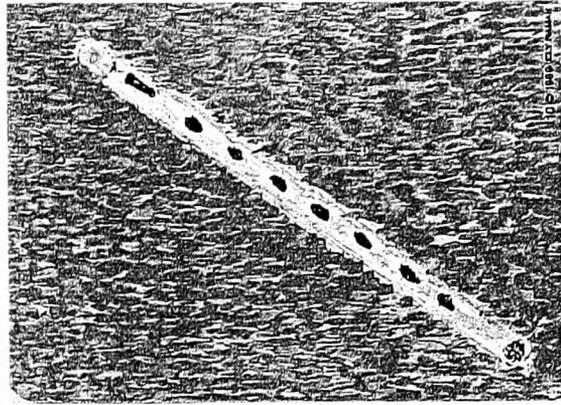
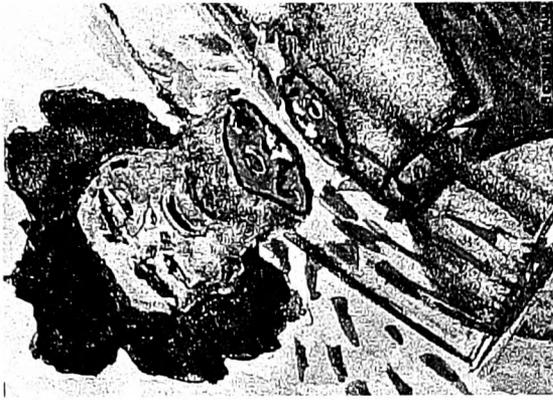
Issues of organizational life are often shrouded by the use of metaphorical descriptions which appear to provide a chunk of information that is more easily managed than the messy issues themselves. Metaphors have also proven useful for gaining original insights (Winsor, 1996). The business world generally, and organisational change management more specifically, has seen numerous accounts of the use of metaphor in decision-making and problem-solving.

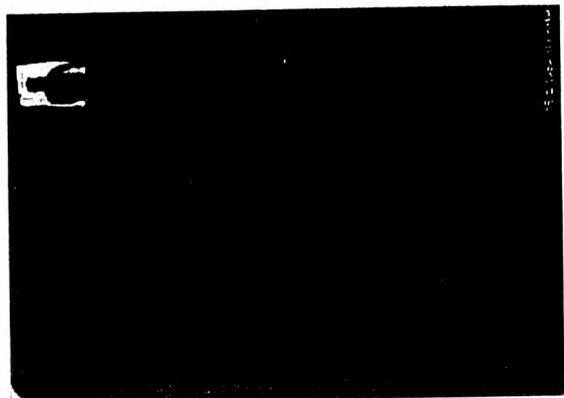
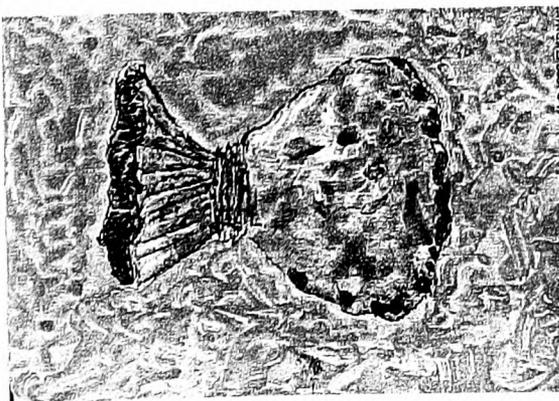
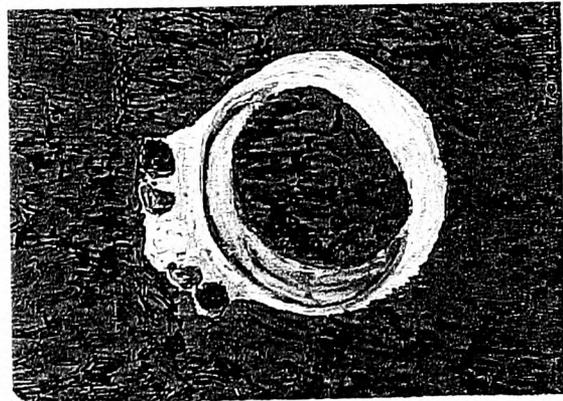
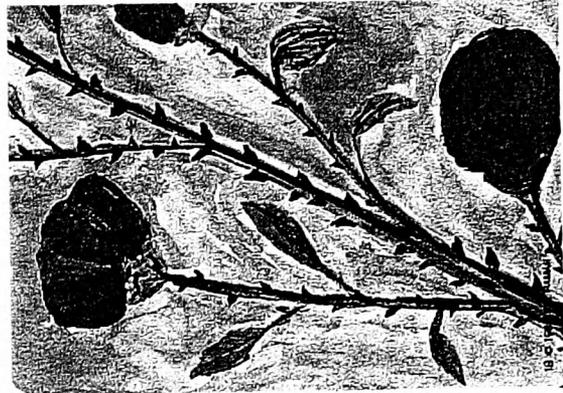
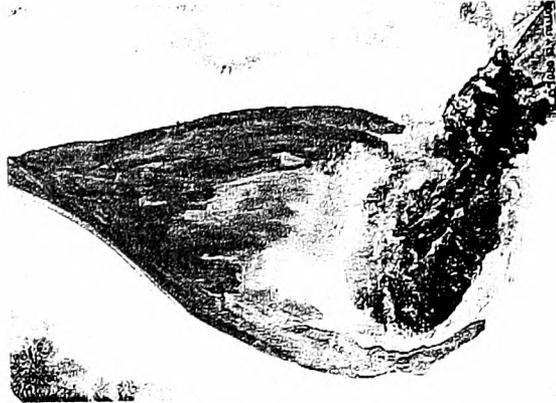
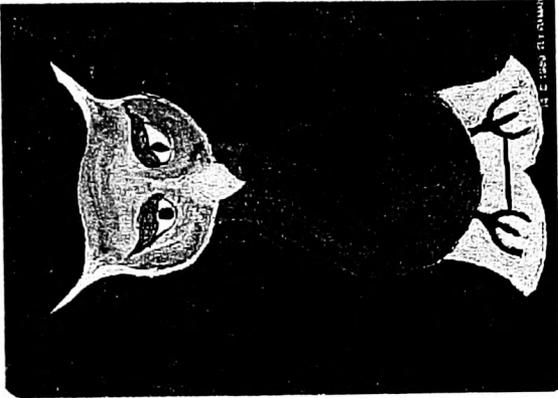
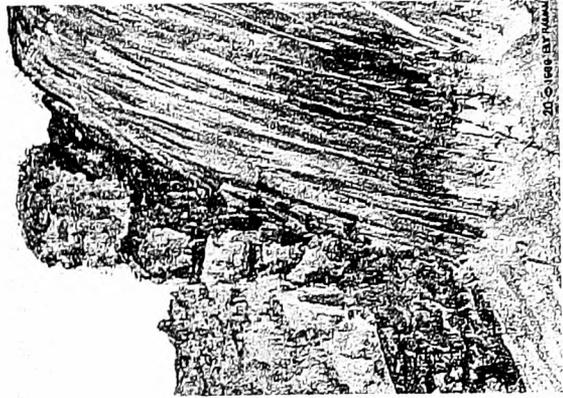
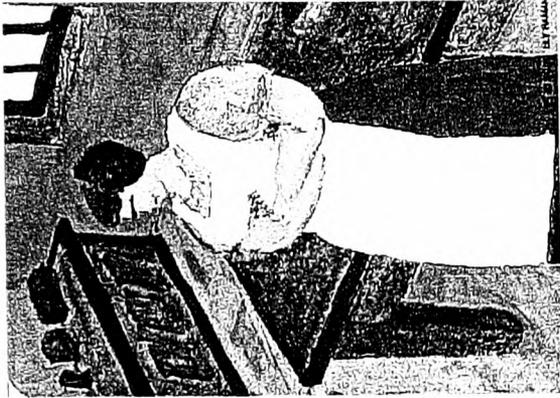
Through harnessing the interpersonal function of metaphor to foster intimacy between speakers and listeners and to highlight common ground, it is believed that the use of metaphor also significantly aids young people's participation in the research process. One way in which metaphors were used was in drawing out similarities between familiar objects, situations, people or events and young peoples' experiences of the school system.

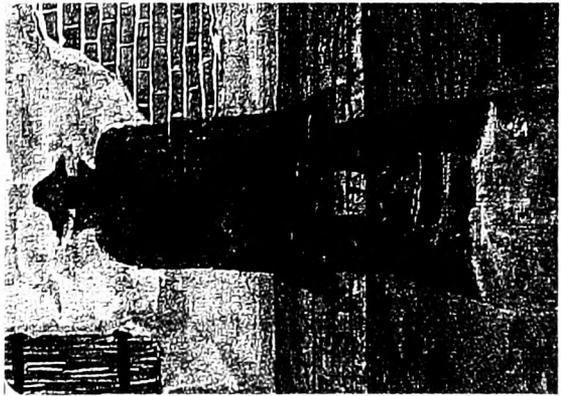
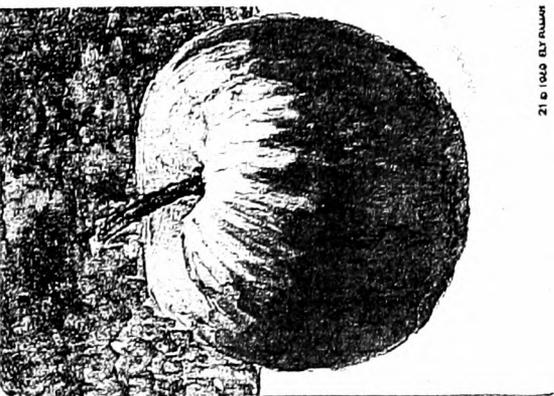
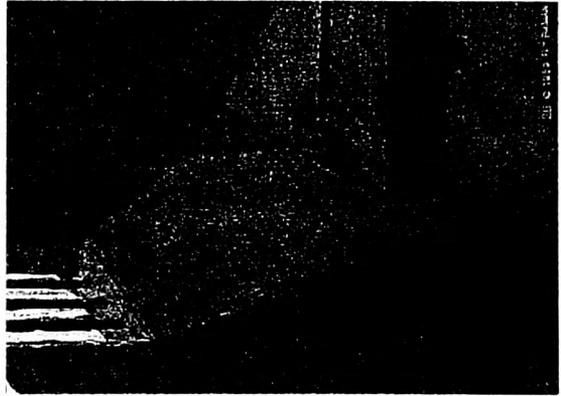
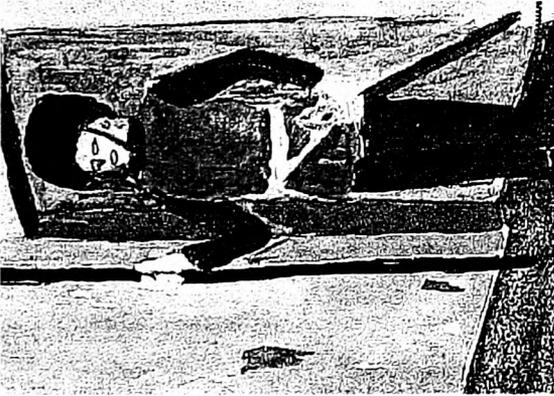
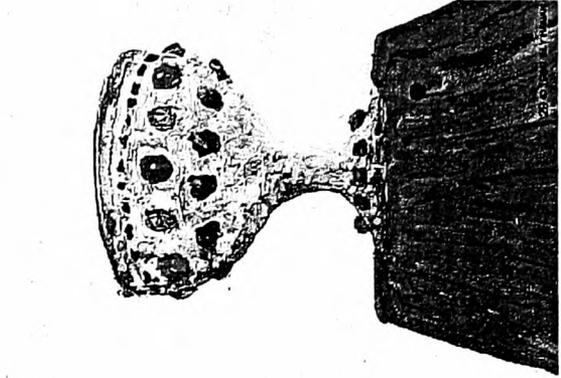
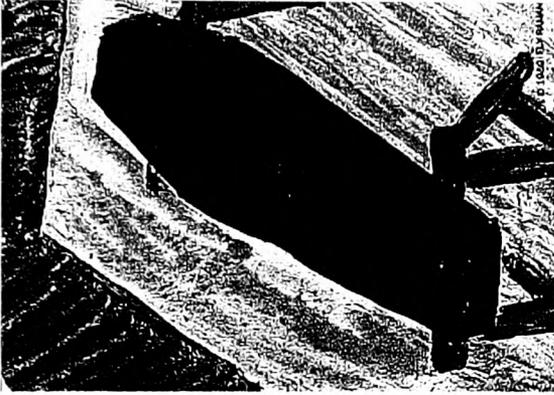
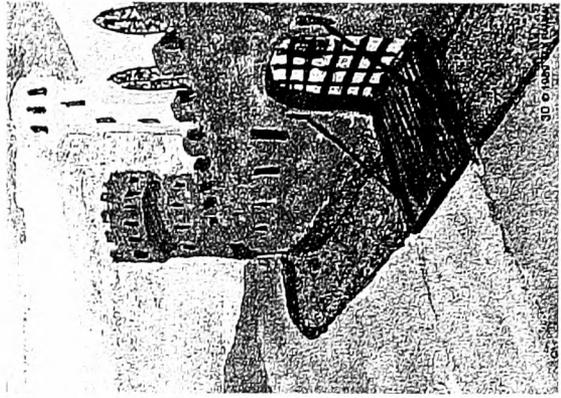
1.3 Summary

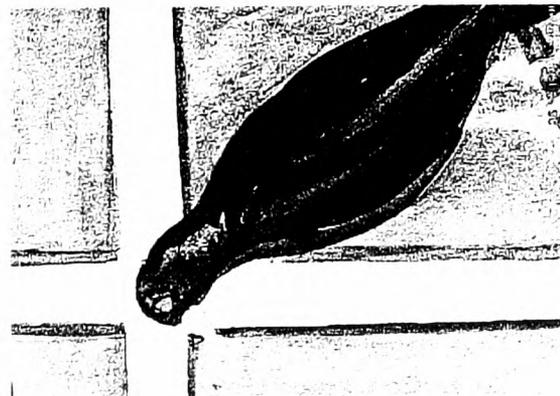
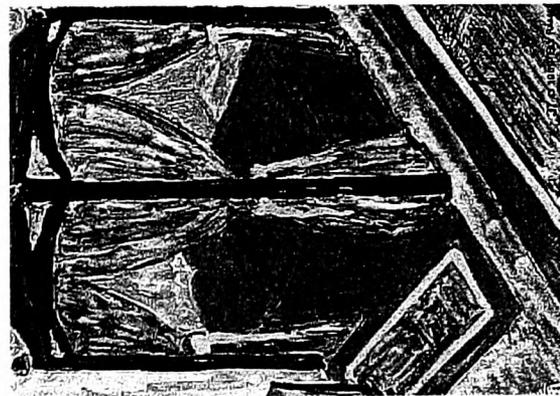
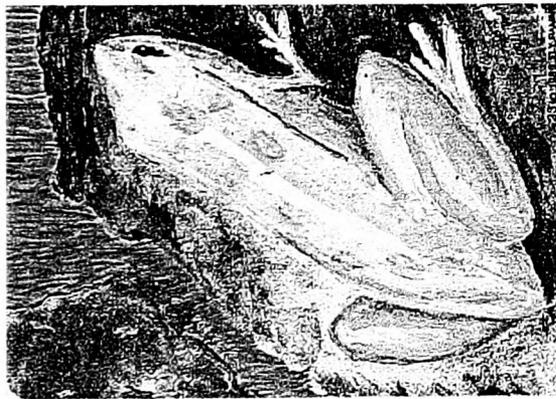
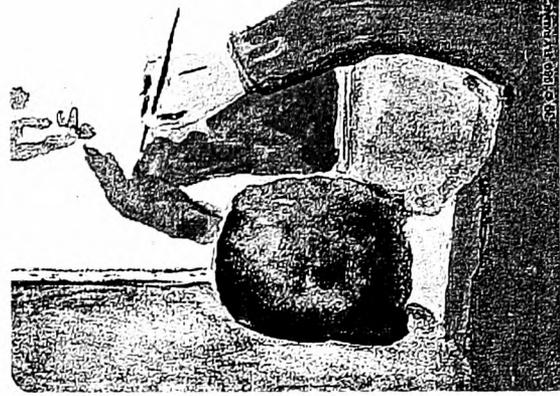
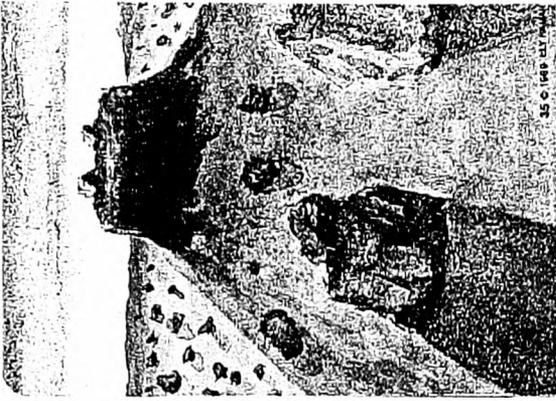
Metaphor makes the abstract visible, a single metaphor can sum up a whole person or situation (Wells, 1924). It can be argued that metaphor has been most obviously valuable in the service of our social and political purposes, explaining why the social and the political world is metaphor's favorite domain (Ankersmit, 1994). The use of metaphor enables us to come to terms with both our social and physical worlds. Metaphor has the capacity to make the unfamiliar familiar. Metaphor is an effective means of generating and organizing knowledge.

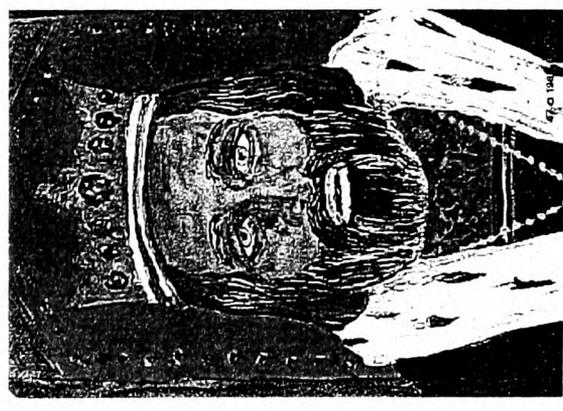
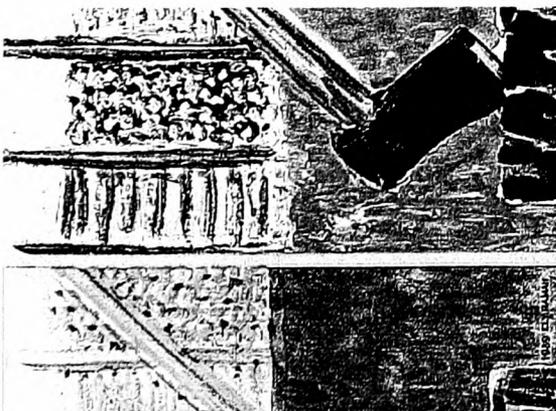
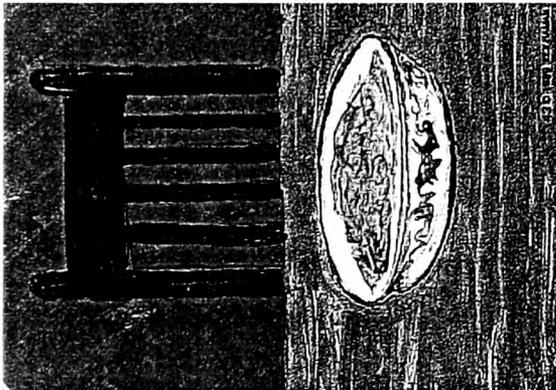
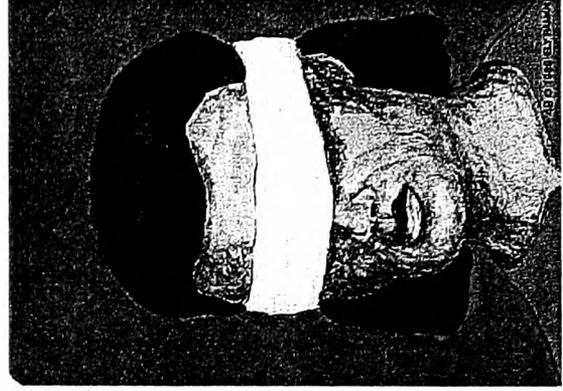
Appendix II – Saga Card Images

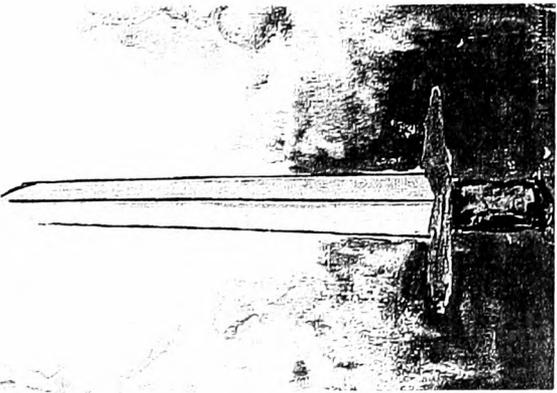
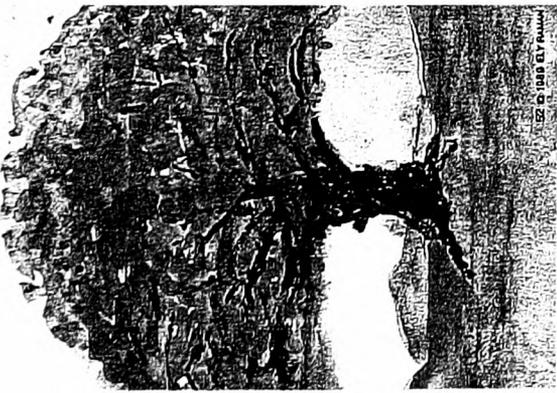
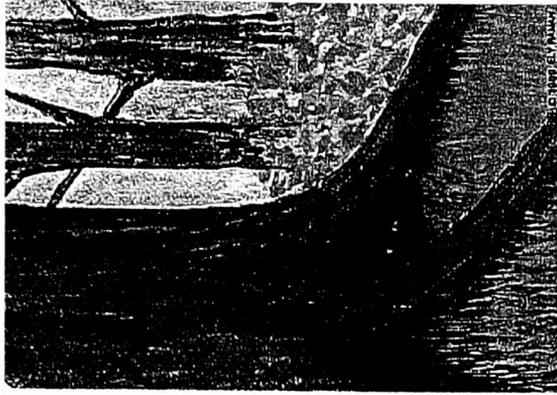












Appendix III – Metaphors generated by Saga Cards, Inner City School

Table Categorizing Pupils' Metaphors – C04			
Theme	Positive image	Positive/Negative image	Negative image
Education style	<ul style="list-style-type: none"> 50 <i>Jester</i> – funny and good, learn things, sometimes teachers help make it funny (DL/9/M) 	<ul style="list-style-type: none"> 39 <i>Painting a picture</i> – come in young, leave an adult, sometimes its painted for you and 'sticks' (DL/11/F) 55 <i>Forrest with something hiding under tree</i> – if you take time to look you can find new things 'looking for opportunities' (DL/11/M) 4 <i>Maze</i> – went round and round, didn't do anything, it's a dead end (DL/8/F) 4 <i>Maze</i> – school is like a maze, you turn corners in your work and don't know where you're going (DL/8/F) 16 <i>Darkness</i> – in the dark, then get a light, then back into the dark (DL/8/F) 46 <i>Lamp</i> – in the dark, then get a light, then back into the dark (DL/8/F) 	<ul style="list-style-type: none"> 4 <i>Maze</i> – don't know which way you're going, get pushed down a particular route, by teachers and sometimes other kids (DL/11/F) 50 <i>Jester</i> – it's fun, bigger, more lessons, vending machines, clubs, new friends, teachers are friendlier (DL/7/M) 50 <i>Jester</i> – it's fun, bigger, more lessons, vending machines, clubs, new friends, teachers are friendlier (DL/7/M)
Relationships with adults	<ul style="list-style-type: none"> 3 <i>People joined together</i> – everyone works together and helps each other, children help children, teachers help children (DL/9/M) 	<ul style="list-style-type: none"> 30 <i>Castle</i> – Camelot on the inside, ugly on the outside, people and place (DL/11/M) 3 <i>Two people joined together</i> – have to work together, despite different backgrounds, you can't do it alone (DL/11/F) 	<ul style="list-style-type: none"> 49 <i>Blindfold</i> – sometimes you get ignored (DL/11/F) 28 <i>Prison</i> – like a prison, teachers not very nice, rules, toilets disgusting (DL/8/M) 50 <i>Jester</i> – Kids mucking about, teachers don't do anything about it (DL/10/M) 45 <i>Queen</i> - People who think they're above everyone else (DL/10/F)
Organizational environment/Rules	<ul style="list-style-type: none"> 23 <i>Soldier</i> – wearing uniform is good (DL/7/F) 	<ul style="list-style-type: none"> 41 <i>Spider and web</i> – like all the different years, find your way up, might be easy or hard (DL/7/F) 	<ul style="list-style-type: none"> 28 <i>Prison Cell</i> – locked in a prison, feel bored not allowed to leave class, or go outside gates during hours (DL/9/F) 43 <i>Food</i> – Dinner times are too short, need to be longer, not enough time to go home and eat (DL/8/M) 30 <i>Castle</i> – once you get in, you can't get out (DL/8/M) 20 <i>Door</i> (behind waterfall) – mysterious, confusing (DL/8/M) 30 <i>Castle</i> – Like a prison, restricted, can't do what you want (DL/10/M) 28 <i>Prison Cell</i> – Like a prison, restricted, can't do what you want (DL/10/F) 17 <i>Jewellery</i> – excessive make-up not allowed (DL/10/F)

Organizational Image	<ul style="list-style-type: none"> 18 <i>Rose Bush</i> – thorns in the way (kids, and teachers) but still the flowers are there (DL/11/F) 		
Physical environment	<ul style="list-style-type: none"> 30 <i>Castle</i> – Camelot on the inside, ugly on the outside, people and place (DL/11/M) 		<ul style="list-style-type: none"> 28 <i>Prison</i> – like a prison, teachers not very nice, rules, toilets disgusting (DL/8/M) 4 <i>Maze</i> – so big, didn't know where to go (DL/7/F) 4 <i>Maze</i> – so big, didn't know where to go (DL/7/F)
Personal orientation	<ul style="list-style-type: none"> 20 <i>Waterfall</i> – need time to relax (DL/11/M) 	<ul style="list-style-type: none"> 9 <i>Sunset</i> – rosy future, its there if you want it, no one can tell you otherwise (DL/11/F) 16 <i>Going out into the Light</i> – light at the end of a tunnel (DL/7/M) 	
Relationships with peers	<ul style="list-style-type: none"> 30 <i>Castle</i> – Camelot on the inside, ugly on the outside, people and place (DL/11/M) 3 <i>Two people joined together</i> – have to work together, despite different backgrounds, you can't do it alone (DL/11/F) 	<ul style="list-style-type: none"> 3 <i>People joined together</i> – everyone works together and helps each other, children help children, teachers help children (DL/9/M) 3 <i>Sticking Together</i> – friendship groups (DL/7/M) 47 <i>King</i> – other kids treat you like royalty (DL/7/F) 	<ul style="list-style-type: none"> 44 <i>Destruction</i> – some people go out of their way to spoil it (DL/11/M) 55 <i>A Wood</i> – children are like a wood, some people hide, bullies, number of people make it like a forest (DL/9/M) 45 <i>Queen</i> – People who think they're above everyone else (DL/10/F) 55 <i>Hiding</i> – Not knowing anyone, hiding in the bottom of a tree (DL/10/M) 35 <i>Hill with two people surrounded</i> – older years are on top looking down on us (DL/7/M)
School Facilities		<ul style="list-style-type: none"> 21 <i>Food</i> – food is healthy, good, more choice from what there is (DL/9/M) 21 <i>Apple</i> – food's good (DL/7/F) 	<ul style="list-style-type: none"> 43 <i>Food</i> – Junk food at school, nothing healthy (DL/11/F)
School Decision making			<ul style="list-style-type: none"> 16 <i>Looking into a dark room</i> – we are kept in the dark (VN/11/F)

Table Categorizing Adults' Metaphors – C04

Theme	Positive image	Positive/Negative image	Negative image
Management Style			<ul style="list-style-type: none"> • 26 <i>Shadow</i> – in the shadows (DL/NTS/F) • 11 <i>Money Bag</i> – Its all about the money (DL/NTS/F) • 47 <i>King</i> – The head thinks he's the king, we're the subjects, everybody (DL/NTS/F) • 50 <i>Jester</i> – The head thinks he's the king, we're the subjects, everybody but it's a joke (DL/NTS/F) • 3 <i>Two Heads</i> – The head has two heads, the business head gets in the way (DL/NTS/F) • 1 <i>Document</i> – the 'documents' are all in place, but the action is missing (DL/NTS/F)
Education style			<ul style="list-style-type: none"> • 40 <i>White Feather</i> – negative, lack of action (DL/NTS/M) • 49 <i>Blindfold</i> – turning a blind eye (DL/NTS/M) • 19 <i>Flame</i> – needs to be heated up (DL/NTS/M) • 38 <i>Boat</i> – left alone to our own devices (DL/NTS/F)
Organizational environment/Rules			<ul style="list-style-type: none"> • 35 <i>In the distance</i> – the schools 'what we want for our school' ideal is too far in the distance (DL/NTS/F) • 16 <i>Dark Tunnel</i> – in the dark but light at the end of the tunnel (DL/NTS/F) • 4 <i>Maze</i> – going round in circles (DL/NTS/F)
Organizational Image	<ul style="list-style-type: none"> • 8 <i>A vision</i> – The vision is there (DL/NTS/F) 		<ul style="list-style-type: none"> • 35 <i>In the distance</i> – the schools 'what we want for our school' ideal is too far in the distance (DL/NTS/F)
Physical environment			<ul style="list-style-type: none"> • 28 <i>Prison Cell</i> – a harsh physical and psychological environment (DL/NTS/F) • 23 <i>Guard</i> – its going to become a fortress with us as the guards (DL/NTS/F) • 30 <i>Fortress</i> – its going to become a fortress with us as the guards (DL/NTS/F)

Social/Leisure environment			<ul style="list-style-type: none"> • 28 <i>Prison Cell</i> – a harsh physical and psychological environment (DL/NTS/F)
School Decision making			<ul style="list-style-type: none"> • 5 <i>'Cut and Dry'</i> – already decided (DL/NTS/F) • 11 <i>Money Bag</i> – its all about the money (DL/NTS/F)

Appendix III – Metaphors generated by Saga Cards, Suburban School

Table Categorizing Pupils' Metaphors – S06			
Theme	Positive image	Positive/Negative image	Negative image
Education style	<ul style="list-style-type: none"> 29 Cup – school rewards people who do well (WN/10/F) 		<ul style="list-style-type: none"> 4 Maze – led in, left in the middle (particularly during study leave and after exams), more effort for the 'bottom of the pile' (WN/11/M) 16 Black hole – plunged into course work, options etc (WN/11/F) 39 Painter – Year 7 a blank canvass, filled in over the years, you can't go back and retouch the mistakes (WN/11/M) 42 Axe – need for a pressure release, pressure form school, homework, revision, course work, a big jump from Year 9 to 10 (WN/11/F) 41 Spiders Web – keep on working till you finish, only keeps on going, unlimited (WN/8/F) 16 Boring – like homework, we get to much (WN/9/F) 37 Bed – everyone would rather be back in bed (WN/12-13/F) 15 Woman – one particular teacher, too stern (WN/12-13/F)
Relationships with adults			<ul style="list-style-type: none"> 22 Dog about to jump off a cliff – being pushed over the edge by 'them' (Adults, teachers) (WN/11/F) 34 Teacher – pick on you, detention for no reason (WN/8) 45 Queen – (female) teachers think they are Queens, boss you about, PE teachers are worst (WN/9/F) 47 King – (male) teachers think they are Kings, boss you about, PE teachers are worst (WN/9/F) 14 Owl – teachers watching over you (WN/9/F) Teacher - Scary teacher wants to cut off your head when you are naughty. Just teachers are scary (WN/7/M) 42 Axe – if you don't do what you should you get 'axed' (WN/12-13/F) 23 Soldier – teachers on guard, authority (WN/12-13/F)

			<ul style="list-style-type: none"> • 3 <i>Two-Headed Person</i> – the kind of people you meet in school (friendly good), teachers are two faced (WN/12-13/F) • 57 <i>King</i> – Head of 6 form thinks he's the king, swings between friend and foe (VN/12-13/M) • 22 <i>Dog</i> – treated like a dog, no respect even though you are 17 (WN/12-13/M) • 13 <i>Teacher</i> – Feel that if you say what you think you'll get your head bitten off. 'They' make you feel that you should just be grateful (WN/10/M) • 45 <i>Queen</i> – 'they' think they're superior to you. 'They' look down on you (WN/10/M) • 3 <i>Man with two Heads</i> – like Mr Cooke, man with two heads and two faces, one side says going to do great things, another side that lets you down (WN/10/F) • 52 <i>Mature Tree</i> – grown up now, give teachers respect and they should give it to us (WN/10/F)
Organizational environment/Rules		<ul style="list-style-type: none"> • <i>Castle</i> – Can't do as many things as you could at last school, very strict (WN/7/F) 	<ul style="list-style-type: none"> • 28 <i>Prison</i> – too many rules, the Head is the Governor and the teachers are the warders (bodies) (WN/11/F) • 28 <i>Prison cell</i> – trapped in a classroom, not allowed to get up and go (physically) (WN/9/F) • 30 <i>Fortress</i> – Like going into prison, an open prison (WN/12-13/F) • 17 <i>Ring</i> – not allowed to wear jewellery, but 'they' wear loads (VN/10/F) • 10 <i>Musical Instrument</i> – you have to pay to learn, and get forced into joining orchestra (WN/10/F)
Organizational Image		<ul style="list-style-type: none"> • 30 <i>Castle</i> – Not much to look at on the outside, but a lot more on the inside. A secure environment (secure from the outside world) (VN/11/M) 	

Physical environment	<ul style="list-style-type: none"> 36 <i>Bird</i> – now (in Year 8) its easy to get around (WN/8/F) 48 <i>Environment</i> – Good, the trees and duck pond, good environment (WN/10/M) 4 <i>Maze</i> – so big, could get lost, exciting, interesting, gives you a thrill (WN/7/F) 49 <i>Blindfold</i> – completely lost as though blindfolded, didn't know a thing, didn't know anybody, didn't know where I was (WN/7/M) 		<ul style="list-style-type: none"> 30 <i>Castle</i> – Gloomy corridors, getting lost (WN/8) 4 <i>Maze</i> – difficult to make your way around (WN/9/M) 26 <i>Stranger</i> – big school, easy to get lost (physically) (WN/8) 28 <i>Prison Cell</i> – drag, plain, boring (WN/12-13/M)
Personal orientation	<ul style="list-style-type: none"> 42 <i>Axe</i> – working hard to get to the top (WN/8) 47 <i>King</i> – working hard to get to the top (WN/8) 18 <i>Flowers</i> – grow up during school life, blossom (WN/12-13/F) 	<ul style="list-style-type: none"> 49 <i>Blindfold</i> – don't know what is going to happen next, from one day to the next, scary, sometimes exciting (WN/9/F) 	<ul style="list-style-type: none"> 49 <i>Blindfold</i> – lost, when you first come to school (mentally/emotionally) (WN/8/M) 41 <i>Spiders Web</i> – entangled in a web of teachers, pupils, trapped (WN/12-13/F)
Relationships with peers	<ul style="list-style-type: none"> 3 <i>Siamese Twins</i> – friends joined at the hip (WN/9/F) 	<ul style="list-style-type: none"> 51 <i>Sword</i> – sometimes have fights, but this can be good (WN/9/M) 	<ul style="list-style-type: none"> 27 <i>Scary person</i> – sometimes scared of people giving you funny looks, are they tough? (WN/9/M) <i>Two Rocks</i> – stages of life, looking up at year 9, they're looking down at you (WN/7/M) 3 <i>Male/Female Giant</i> – Mixed gender school, giant school, old school very small. Very scary! (WN/7/F)
Social/Leisure environment	<ul style="list-style-type: none"> 33 <i>Frog</i> – (full of energy) lots of lunchtime sports to do, good (WN/9/M) 50 <i>Jester</i> – 6 form parties, good (WN/12-13/M) 		
School Facilities		<ul style="list-style-type: none"> 43 <i>Bowl of Pasta</i> – Food, alright sometimes (WN/12-13/M) 	<ul style="list-style-type: none"> 54 <i>Fish</i> – like the fish in the school pond, no one is really bothered about them (WN/12-13/M)
School Decision making			<ul style="list-style-type: none"> 49 <i>Blindfold</i> – often kept in the dark about what goes on, not told about things that affect us until too late (WN/10/F) 16 <i>In the dark</i> – kept in the dark about most things (WN/10/M)

Appendix IV – Ideas and themes, Inner City School

Year Seven

C047B

other points

- King - other kids treat you like royalty
- light at the end of tunnel
- hill with two people surrounded
- apple - foods good
- soldier - wearing uniform - good

How can it be made better?

- (A) Cards to vote on different things
- (B) Tell year rep. They will tell people at the committee
- (C) Open meetings so other children can learn as well
 - other children should be

C047C

able to speak as well

Things to be asked about

Outside rest areas

- who goes into our area
- what is it like
- teachers - reporting interviewing - } Environ-
onment
- size of classroom } learning
environment
 - ↳ space for seating
- extra bins
- ban chewing gum
- tuckshop in hall not yr 9

changes to school day

- length of lesson time
- number of lessons
- choice of subjects - languages
- amount of homework
- balance of lessons and homework
- toilets

full school

should have a say

C047D

Things we shouldn't be asked about

- subjects - phase in new subjects languages
- private life - but should be someone to talk to (tutor)
- other people need to have a say
 - ↳ parents/family
- times of other schools
- safety issues - but should be able to decide some things
 - ↳ hazards, fire, signs
- money - sometimes they should be able to say

C047E

WHAT SHOULD SCHOOL SYSTEM BE LIKE?

- (C) - So children can learn
 - get to know more
 - all know what they are doing
 - everyone gets to agree or disagree
- all year group meetings
- need information
- need a big meeting place
- make decisions just for year group
- meetings every month - not forced to go
- once a year, see what the whole year has done

Year Seven (cont.)

C047F

- head of year - should call meeting
- should keep order
- should listen & partly run meetings
- should make sure decisions are fair
- children should vote on what is to be talked about at meetings
 - tally marks
 - computer?
- recording changes - something should get done
- teachers should give advice -
 - but should listen to children's solutions
 - Children's views have priority in discussion
- should be based on trust

C047G

What was easy/did you like?

- pictures were easy and fun - feelings
- nobody could say we were wrong
- everyone got to say what they wanted

What was hard/didn't you like?

- not used to being asked about things
- making decisions
- teachers might stop it from happening
Say its too complicated

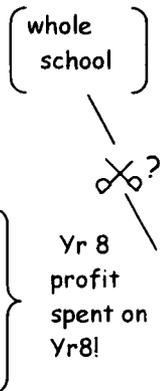
Things could work if they want it to

Year Eight

C048C

Things we should be asked about

- length of lessons
- cost of library passes
- length of breaks
- what the money is spent on
- what is in the year block
- toilets
- what children need - drinks, food
- prices in the vending machines
- How often vending are filled
- Homework
- They (SMT) should ask us before they decide
There should be nothing they don't ask us about



C048D

- we need to 'see' things happen
- we should not be asked to do anything 'they' wouldn't/don't do

Problems should get sorted out

- need contracts

C048E

What worked? Why?

- school / friends rep - unofficial
- on own behalf
- eventually
- negotiation

C048F

What was easy/did you enjoy?

- Cards - new
put a picture in a picture
 - Play - needed more time
- Easiest - acting
- talking

Year Nine

C049B

What should you be asked about?

- Talking in class
 - Detentions
 - Teachers - humorous ones, what they are like, how strict, respect you, 'care'
 - What lessons we do
 - Litter/ clearing up
 - Longer dinner breaks
 - Breaks between lessons
 - Make doors bigger, more doors, how school is set out, boilers
 - Toilets, no roles, no locks, procedure
 - Bullying
 - Who comes here
 - Facilities, tuckshops, vending machine prices, contents, where the money is used
 - some 'money' issues anything under £200
- Library Use
 - organisers
 - Times school should be open
 - Teachers should have rules, we should know what they are
 - Uniforms

C049C

What shouldn't we be asked about?!

- Personal things
- some 'money' issues anything over £200
- not asked for 'contributions' (money)
- no embarrassment or belittling

How we can be listened to?

Questionnaires



Presentations

Booklets
in person

- direct 1st
indirect 2nd

Discussion

- Meetings
- Telephone
- Email
- Tv
- Radio

need reply 1st
results 2nd

C049D

What should reps be like?

- calm
 - nice and gentle
 - treats pupils like his/her own kids caring, get to know them
 - people who care about other people and their things/work
 - not short-tempered, consistent
 - works well with other people
 - children and other teachers
 - friendly (enough)
 - sorts kid's problems out
 - enjoys school
 - likes children
 - humorous
 - trusting and trustworthy
 - responsible
 - keeps secrets
- imaginative
 - smart/clever

C049E

What did you enjoy/find easy?

- pictures
- talking about teachers, what we want
- identifying rep's qualities - saying what had been written down

What was difficult? What didn't you like

Thinking about picking a card - too many

- Things we should be asked about?

How can we be listened to?

Year Ten

C0410B

What should we be asked about?

What school dinners should be like

What subjects should you do?

- vote
- options

What space we should have, who is allowed in
what you can do there
↳ e.g. music

What the school interior is like

- flatter
- brighter

What uniform should be like - teachers should
wear one

Teachers - age?
- attitude?
- humorous
- know when to draw the line

Head teacher | what hours you should do, longer breaks

People who attend the school - get rid of the
'divvies'
test?

Rules - chewing in class
- silly, should be consistent
- should be decided with kids and teachers

C0410C

What shouldn't you be asked about?

Teachers

- detentions
- content of lessons
- who did something they shouldn't have done - not to grass
- what you do outside school
 - personal stuff

Some things to do with money

C0410D

How could you get listened to?

Surveys/questionnaires

- Voting system - ideas that people
had put forward

- Mass meeting
- leaflets, posters, etc.

- Tannoy

- Radio station

- Need incentives to go along

- Needs to be entertaining

- Strikes

C0410E

What should people be like who
speak for you or listen to you?

- should have to show why something can't be done
- People you can trust
- must act as well as talking, must deliver
- Someone who will get the message across

- People who will listen to others ideas
Familiar, most people know them

- Popular (not everyone agrees)
- must be good looking
- know their mind
- Be positive - someone with
courage

- Someone who won't back down at first

sign of competition/when being put down

- Should be able to discuss instead of stating
'that's how it is'

It could be anyone

Year Ten (cont.)

C0410F

What did you find easy/did you enjoy?

- Talking, not having to write
- Getting out of lessons
- Talking as equals
- What we should be asked - you listened

What was difficult/didn't you enjoy?

- Cards - thought others might laugh
- Being asked what you shouldn't be asked
 - should be consulted in all things

What could have been done differently

- Didn't need cards, could just ask directly
- Should & Shouldn't switch order

Year Eleven

C0411B

What should we be asked about?

How school buildings should be designed
 — School site —
 How resources are used
 What resources are bought
 Who uses what/+ when
 What the rules are
 Security, CCTV, security/guards officers
 The registration system, arrival and each lesson
 What subjects should be taught
 What level we should learn at (by subject)
 Who the teachers should be
 How we should be assessed
 Exam conditions
 Food provision
 School day timing, what day, when it starts/finishes
 breaks and dinner
 Homework Uniform - dress code
 Class sizes
 Classroom décor How things are taught
 Punishments (e.g. virtual school)
 Who the head should be
 Medical cover

personalised resources

C0411C

What the people should be like

Approachable
 Friendly
 Young (at heart)
 Experience/newness
 Reliable
 Adaptable
 Flexible
 Listeners
 Communicators (and 'advertisers')
 Sensible
 Organised
 Respectful
 Trustworthy
 Honest
 Open

counsellors
 teachers
 peers
 specialists

C0411D

How shouldn't we be asked about?

Exam questions
 'nothing'
 personal stuff
 Money (within certain limits)
How could we be asked
 Year councils - if they actually worked 'No
 excuses'
 Direct to the Head
 Gov's
 deo TV/film/vi
 In person voting Radio
 In writing smart cards Grapevine
 Petition
 Assembly
 Email - discussion groups
 Telephone
 Random sapling
 surveys

C0411E

How would we know we had been heard?

We could see the changes happening
 Results
 If we were given the job to carry through
 If we were given a 'reasoned' reply
 If we were given responsibility
 If we were not dictated to
 If 'they' responded
 'Equal' power in 'debate'
 What was easy/what we liked
 Being listened to the mixture of
 participants
 treated as individuals
 pictures
 listening to/seeing other peoples point of view
 What was hard/what we disliked
 what shouldn't be asked

Non-Teaching Staff

C04NTSB

How it should be.....I want

everyone should be involved:

Teachers	parents?
NTS	Gov's?
Kids	

turn it upside down....'kid power'

like 'summer school'

like an 'integrated learning community'

all 'decisions' should be reviewed/iterative process
e.g. return to behaviour group

no more 'half measures'

should be a 'life school'

forget the 'macro' + the 'micro' economics

don't rely on the lowest common denominator

C04NTSC

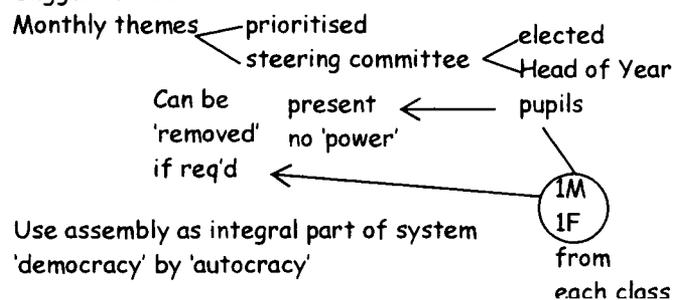
How it could be done!

Representative system

Organised discussions - timetabled

Mass meeting

Suggestion box



Use assembly as integral part of system
'democracy' by 'autocracy'

Individual system

Flyers

Questionnaires

Computer

Intranet/internet

School paper/Magazine

those of

TV Public Access TV

Radio

Video (demo/advertising)

'Town Crier'

'Voting'

Computer

(good for

lesser ability in
terms of vocabulary
confidence etc.)

C04NTSD

What they should decide....

Uniforms

Meal

School day

teachers (consultation only/having a say)

discipline rules / and some say in application

environment

What should they not get a say

No final say

level of work

```

    graph LR
      A[level of work] --> B[volume]
      A --> C[difficulty]
  
```

curriculum

Year Eight

W8B
 What should we be asked about?
Working Environment - Dress code

- upper + lower school teachers (separate)
- internet access

Classrooms - How Big, furniture, No of students, décor

toilets - when you go, how often condition

teacher - assessment

shortlist of 'head teachers'

equality of rules for pupils + Teachers

outside, maintenance - more bins

Lessons

Homework timetable - more even

detentions/fair hearing

- streaming by subject ability

what you do in the subject - choice of 'order'

order of the school day

timing

choose lessons

timetable

mixed sports M/F

Social Environment

'prefects/ monitors'

what clubs there are, how they are run

a quiet workroom (lunchtimes)

more space (Yr social areas)

lockers

CCTV

make up jewellery different uniform for seasons

liveliness enjoyment fairness fun learning

- somewhere between class + isolation

W8C
 What we should not be asked about?

teachers Pay

the budget

Expulsions/suspensions

How can we make sure we are heard?

Questionnaire Web site

Meetings

Group discussions (focused)

Vote

Petition

Posters

Tannoy

Newspaper

Videos

Adverts

Documentary

Presentation

W8D

Vote

- show of hands
- secret ballot
- Class averages
- Computer

access

training

- quick
- easy
- secret
- accurate
- modern
- cheap
- frequency

How we would know we were heard?!!

Results

Action not words

Personal contact

Feedback

Organisation

What the people should be like!

A mix of ability, background

believable

Honest

Respectful

fair

non-argumentative

good listeners

Should not be quick to judge, especially with regard to 'money'

W8E

What we found easy/liked!

say what you want, speak freely

no criticism

writing things up so we can add/go back

What we found hard!

What we should not be asked

pictures (at first)

the initial silence

Year Nine

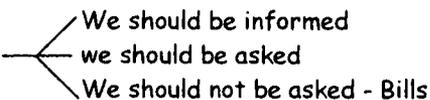
W9B

What should we be asked about?

- Time of council meetings
- What we want in it other than Classrooms But classrooms too
e.g. games rooms, sauna, Swimming pools, etc.
- Outside facilities
- How big the school should be - does it need to be bigger? Bigger rooms, Bigger dinner areas Games shed.
- Astro turf
- When is it open? When are facilities open?
Smoke alarms in toilets - maintenance
- Vending machines
- Where we can eat food
- Teachers, involved in interviews, staff not RE
- Children - what mix, boy/girl,
- What you want to be taught? Subjects & Content
- Who can give detentions/who can't, expulsions
- Who is in charge
- What uniforms should be like, (blue)
- We should get a vote on uniform
- Holidays, when & how long (re-dist. Existing time off)
- Disciplining other pupils and teachers
- Lockers
- Times you start and finish (e.g. flexitime)
- Teacher assessment

W9C

What shouldn't we be asked about?!

Money 

How can we be heard

rewards for being one?

- School reps - but they need to
Speak up for us, they could decide
by voting
- personal contact
tutor group - with feedback
- computer system - website
↳ teachers collect ideas
- suggestion box
- School-wide meetings
- Questionnaire, thru registration
- 'open' council meetings

W9D

What should reps be like?

- Strong - willed, willing to argue
their point (the groups), what
everyone wants
- Teachers should listen and don't
ram their own opinions down your
throat
- Not argumentative
- Teachers should not interfere and
try to change ideas
- Sensible (but not too swotty)
- Reliable - willing to go to every meeting
- Not necessarily intelligent
- Not 'Yes' women/men
- Shouldn't laugh at other people or
their ideas
- Respect
- should not interrupt

W9E

What was easy/did you enjoy?

- The cards
- putting your ideas forward
- designing the school
- drawing on the papers

What was difficult ?

- The cards
- Using your head

What could we have done differently

- Spend a whole day
- move around the school to get
Practical examples of what could be improved

Year Ten

W10B

What should we be asked about?

- What the buildings are like
- Building interiors
- Toilets - they're always locked!
- Uniform - more lenient
- The hours that you do
- Teachers - that you can relate to
must have some control

- What lessons you take
If you know what you want to do, you
Should be able to focus on that
If you don't, you should have a general
set of courses

- Dinners - choice in what to eat
- Homework - there is a time-table but they don't
keep to it

- Rules - e.g. chewing gum, make-up, jewellery,
no contradicting
inconsistency
- Good system for giving in suggestions

W10C

What shouldn't we be asked about?!

- Finance - but if we donate to things
we should have a say in how
it is spent
- Where it is spent - Litterbins
- books
- To grass on someone else

Direct - In writing

In person

Phone

E-mail

Fax

Video

Presentation

Assembly

W10D

How could you get listened to?
What system would work?

- Questionnaires
- Student council per year,
Upper & Lower School Councils
Volunteers don't work
- Strikes/Riots/Protest
- Mass meeting with T.V. reporting
closed circuit TV
- Tannoy system
- Radio
- Newspaper
- Have someone who sounds
convincing
- Need to see results-even being told
that nothing can be done would help

W10E

What characteristics should people
Have who should be listening to or
Speaking for you?

- Loud - to get message across
- Shouldn't be afraid of talking to
teachers
- Well-respected figure
- Not there to boost their own ego
- Enthusiastic, should want to do it
- Willing to accept and act on criticism

- Determined - Understanding
- Confident Tidy/Organised
- Ask others for input/suggestions

- Sensitive - Care about what others say
- Convincing - Honest

- Open-mind Intelligent

Year Ten (cont.)

W10F

What has been easy? What have you enjoyed? - Everything

- Having a say
- Being treated as equal
- Cards

What has been difficult? What haven't you enjoyed?

- Cards couldn't see anything in them

What could have been done differently?

- Nothing

Year Eleven

W11B

What should we be asked about?

- Class sizes - After school activities (fun + academic)
- Sets (by topic, subject) with a degree of flexibility
- teachers (accessible, fair, kind, quite strict, coordinated,)
- The Head
- Heads of year - The 'Rules' Same for everybody teacher/student
- Classrooms (more (but not to) comfortable design, décor, layout, how they are used/allocated
- food - (Mc's), what the food should be, choices
- How we should be 'treated' - times of the school day (start, breaks etc, finish)
- Lessons, (aimed towards real life) content
- Subject (what is compulsory/optional)
 - No double standards
- Who comes to our school (personality, academic, behaviour/attitude)
 - Uniform, (choices) For teachers
- Who gets rewarded and how
- Who gets punished and how
- What 'specialists' should be employed (counsellors/advisors)
- Resources (text books, equipment, exercise books)
- Facilities (lockers, toilets)
- What the money is spent on(
- The school environment (communal areas, social areas)
- When we should be asked

W11C

What shouldn't ask you?

Teacher/Staff wages
Finance

How should we ask you?

* all combined into lessons*

- Opinion Poll
- Internet - Best Practice site
- Phone in
- TV programme
- Radio
- Student groups 'like this' working on themes (inc. 'drongos')
- Computers, compile info
- Tutor groups

W11D

How would you know 'they' had listened?

an explanation
a neutral person
representatives

What would convince you?

action
witnesses
televised meetings/decisions

What witnesses/rep's/neutral people should be like

Un-biased
Honest
Open-minded
Trustworthy
'neutral' (involved/uninvolved e.g. student teacher, university)

W11E

What was easy/what we liked

Easy to talk
No 'disruption'
discussion
talked with not at
no arguing

What was difficult/ we disliked

'Getting going'
pictures exercise

What should we do different?

Ask about school directly first then do pictures
Make sure we know what it is about before

Year Twelve/Thirteen

W12.13B

What should we be asked about

The school working environment

The Social environment

class/timetable organisation

class sizes

teachers, fresh/experienced mix, strict when it matters, consistent

discipline procedures

the amount of work and how it is coordinated

the 'rules' about what behaviour is acceptable
'free' time

what subjects are compulsory in 6 form

what is acceptable behaviour from the teachers

what money is spent on

what resources are available

teacher assessment

'purchasing' tailored' education programme

W12.13C

What shouldn't we be asked about

Teachers Wages

How can we be asked

ask everybody *'living with the enemy'
programme

vote - on major issues Yes/No

tutor groups

survey

small group debate/discussion

person to person (Head of year, school)

E-mail

Internet voting

School web site

Chat - site/room

Neutral 'inspectors' at school who would involve
students

Teacher - student conferences

Formal meetings

W12.13D

What was easy/we liked

everything

What's been hard

Thinking 'directly' about school

How would you know?

Results, Action

Seeing is believing

Acknowledgement, feedback, evidence

Newsletter

Access to school financial info'/Budgets

Openness

Parents

WPB

What should we ask children?

What do you want from life?
What skills do you need/want?
e.g. social skills, life skills
What they want to learn?
How do you want to learn? (virtual school)
Who do you want to learn with? (kids)
Who the teachers should be?
What the teachers qualities should be?
To evaluate teachers/teaching?
What the rules should be?
Customer/student driven
When you would like to be taught?
How they should be assessed?
(exam, continuously) regular/multiple testing
How should we deal with 'discipline' issues, procedures
Punishment + reward
What other 'agencies' should be involved/available
in school?
What facilities they should have?
academic/non-academic
What food should be available?



WPC

How the day should be structured?
lunchtimes etc.

What we should not ask them!

the budget (no say, but get feedback)
- should have own budget

How:

speech'	'free
Suggestion box	Radio, TV
Referendum	documentary
weekly forum (debate)	Newspaper
questionnaire	phone 'in'
video box, diary	'voice mail'
E-mail	Internet

WPD

What was easy?

Pictures exercise

What was hard?

Working with an 'ideal' world