

THE UNIVERSITY OF HULL

A Critical Process for the Evaluation of Methodology

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by

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Without much assistance and advice, I could not have finished this thesis. Here, first of all, I have to thank my supervisor, Dr. Midgley, who has given me so much helpful advice and encouragement over the years. Without his help, I would have lost the momentum to carry out this study. Moreover, I would like to thank Ms. Spry for correcting my English language. In addition, thanks to all my friends and School staff who gave me their unhesitating support. Finally, it goes without saying that there are many thanks to my family for supporting me, both financially and in spirit.

Here, I would like to indicate in a few lines what I have learnt during the past five years in the U.K.. As I have always told my friends, when studying in a foreign country, the most important thing is to learn its language and culture. Knowledge does not always come from textbooks, but also from everyday life. It was a great experience to live and study in a foreign country, in particular England. I will never regret my decision to study here. Especially, I will always remember the experience of being a PhD student. There are seven stages in the process of carrying out PhD work, which I would like to share with anyone who may be interested. They are:

1. enthusiasm;
2. isolation;
3. increasing interest;
4. increasing independence;
5. boredom;
6. frustration;
7. a job to be finished. (Salmon, 1992, p.12)

ABSTRACT

This thesis uses Critical Systems Thinking (CST) as a basic philosophy to explore how to create a critical process for evaluating methodology. CST is different from the other two mainstreams of systems thinking (Hard Systems Thinking and Soft Systems Thinking) in terms of its emphasis on methodological pluralism, critical awareness and emancipation.

The study begins with an explanation of a widely used critical systems methodology, Total Systems Intervention (TSI). TSI offers a means for evaluating other methodologies, and the original aim of the thesis was to further develop this. However, the way the research progressed resulted in a break with the basic structure of TSI. Consequently, a new methodology was produced, which can either be used independently or within TSI. This is called Participative Methodology Evaluation (PME).

PME is founded on the idea that a person's understanding of a methodology is influenced by his/her social ideology. Thus, the basic concern of the evaluation of methodology needs to be how methodology-users and organisational/environmental stakeholders can examine their ideological differences through processes of critique in order to make more informed choices. In particular, three perspectives (and sub-perspectives) need to be explored: the ideology implicit in the methodology being evaluated; the ideological assumptions of the methodology-user (consultant, researcher or manager); and the various ideological assumptions made by organisational and environmental stakeholders.

PME embraces three stages: Surfacing, Triangulation and Recommendation. Surfacing aims to expose and explore the various assumptions about, and views on, the candidate

methodology and the organisational situation. Triangulation compares and contrasts the various perspectives, and if possible an accommodation of views is sought. Recommendation provides practical suggestions to stakeholders as to the likely effects of using the methodology being evaluated, and where appropriate highlights possible modifications and/or alternatives.

Finally, a practical case study is given of PME in action. PME was used to evaluate the advisability (or otherwise) of using the Viable System Model (VSM) to restructure Tainan City Council (in Taiwan). Reflections on the case study indicate that significant insights into the likely effects of using the VSM were generated through the PME process, resulting in a fundamental rethink about how the VSM should be applied. Early indications therefore suggest that PME could be a useful tool for organisations seeking to evaluate the likely effects of a methodology prior to application.

CONTENTS

Chapter One: Introduction

1.1. Introduction.	4
1.2. Critical Systems Thinking Requires Methodology-users to Reflect on Their Knowledge and Understanding of Methodology.	6
1.3. TSI(2) Provides Concepts for Methodology Evaluation.	8
1.4. The Aims of the Thesis.	11
1.5. The Structure of the Thesis.	11

Chapter Two: An Overview of the Development of Critical Systems Thinking

2.1. Introduction.	18
2.2. About Systems Thinking.	18
2.3. Hard Systems Thinking.	22
2.4. Systems Cybernetics.	24
2.5. Soft Systems Thinking.	27
2.6. Emancipatory Systems Thinking.	31
2.7. Critical Systems Thinking.	33
2.8. Conclusion.	48

Chapter Three: The Application of Critical Systems Thinking through Total Systems Intervention

3.1. Introduction.	51
3.2. The Nature of TSI.	52
3.3. Total Systems Intervention (version one).	54
3.4. Criticisms of TSI(1).	58
3.5. Total Systems Intervention (version two).	61
3.6. Comparison between TSI(1) and TSI(2).	70
3.7. Conclusion.	75

**Chapter Four: Recent Thinking on the Critical Review Mode
and the Critical Reflection Mode**

4.1. Introduction. 77

4.2. Flood’s Critical Review Mode. 77

4.3. Wilby’s Elaboration on TSI(2)’s Critical Review Mode. 82

4.4. Critical Reflection in TSI(2). 88

**4.5. In Summary, What can be Learnt from the Review
of Methodology in TSI(2).** 92

4.6. Conclusion. 94

Chapter Five: The Paradigm Problem

5.1. Introduction. 96

5.2. The Nature of Paradigm. 96

5.3. Communication between Paradigms. 102

**5.4. Gregory’s Discordant Pluralism and
Critical Appreciation Model.** 106

5.5. The Problem of Ideology. 109

5.6. Conclusion. 109

Chapter Six: The Need for Ideology Critique

6.1. Introduction. 112

6.2. The Concept of Ideology and Its Historical Development. 112

6.3. A Typology of Ideology. 115

6.4. The Need for Ideology Critique. 120

6.5. A Model for Ideology-Critique. 123

6.6. Conclusion. 126

Chapter Seven: The Stakeholders of Methodology Evaluation

7.1. Introduction. 128

7.2. The Nature of Participation. 128

7.3. Who should be the Stakeholders in the Methodology Evaluation Process? 132

7.4. The Role of Methodology-users in Methodology Evaluation. 134

7.5. The Role of Organisational and Environmental Stakeholders in Methodology Evaluation. 136

7.6. The Candidate Methodology as a Stakeholder. 139

7.7. Towards Critical Understanding of Methodologies. 141

7.8. Conclusion. 143

Chapter Eight: A Methodology for Methodology Evaluation

8.1. Introduction. 145

8.2. Participatory Methodology Evaluation (PME). 146

8.3. Principles of PME. 150

8.4. Three Phases of PME. 151

8.5. Conclusion. 156

Chapter Nine: Comparison between PME and TSI(2)

9.1. Introduction. 158

9.2. Where and When is PME Needed? 159

9.3. Beyond a System of Methods. 160

9.4. Dealing with Coercion and Ideological Conflicts. 161

9.5. Using PME as Part of TSI(2). 163

9.6. Conclusion. 163

Chapter Ten: Designing A Method for Implementation

10.1. Introduction. 166

10.2. Characteristics of the PME-Practitioner. 167

10.3. Surfacing. 168

**10.4. Triangulating Knowledge and Understanding in the Local
Context through Ideology-Critique (Dialectical Debate).** 182

10.5. Recommendations (suggestion and change proposals). 188

10.6. Conclusion. 191

**Chapter Eleven: Application in Tainan City Council
(a Pilot Case Study)**

11.1. Introduction. 193

11.2. Constraints. 194

11.3. TCC’s Background. 195

11.4. Implementing the PME Process in TCC. 201

11.5. PME-practitioner's Issues. 202

11.6. Workshop Creation. 203

11.7. Stakeholder Analysis. 205

**11.8. Surfacing Three Perspectives (and Sub-perspectives)
on TCC and the VSM.** 214

11.9. Triangulation. 247

11.10. Recommendations for TCC. 253

11.11. Conclusion. 259

Chapter Twelve: Reflections Emerging in the Application of PME

12.1. Introduction. 261

**12.2. Reflections from Organisational/Environmental
Stakeholders and the Methodology-user.** 262

12.3. Reflections from the PME-practitioner. 265

12.4. What can be Learnt from the Application of PME? 266

12.5. Conclusion. 267

Chapter Thirteen: Conclusions

13.1. Introduction. 269

13.2. Methodologies are Rooted in Ideology. 270

13.3. PME Enriches Understanding of a Candidate Methodology. 270

13.4. PME and TSI(2). 271

13.5. The Practical Application of PME. 272

13.6. Future Research Directions. 272

13.6. Final Thoughts. 274

Bibliography 275

LIST OF TABLES

**Table 3.1. The Main Structure of the Complementarist Framework
for the Choice Phase, and the Five Metaphors from
the Creativity Phase 68**

Table 3.2. Principles for Intervention Linked to Three Types of Method 69

Table 4.1. Validity Statements and Systems Methodologies 84

Table 4.2. Comparison of the Three TSI(2) Modes..... 93

**Table 10.1. The Critically Heuristic Boundary Questions, Concerned
with “Source of Motivation”, in the “Is” Mode..... 170**

**Table 10.2. The Critically Heuristic Boundary Questions, Concerned
with “Source of Control”, in the “Is” Mode 170**

**Table 10.3. The Critically Heuristic Boundary Questions, Concerned
with “Source of Expertise”, in the “Is” Mode 171**

**Table 10.4. The Critically Heuristic Boundary Questions, Concerned
with “Source of Witnesses”, in the “Is” Mode..... 172**

Table 11.1. Questions for the Interviewees..... 224

Table 11.2. Questions for the Central Government Official..... 225

Table 11.3. Questions for the Methodology-User 240

LIST OF FIGURES

Figure 1.1. Three Modes of Total Systems Intervention 8

**Figure 2.1. A Grouping of Systems Methodologies Based upon
the Assumptions They Make about Problem Contexts 39**

**Figure 2.2. Constituting the System of Systems Methodologies
through Dominant Metaphors 41**

Figure 3.1. The Process of Total Systems Intervention 57

Figure 3.2. Three Problem Solving Phases in TSI(2) 65

Figure 3.3. Three Modes in TSI(2) 65

Figure 3.4. Subphases of the Three Phases in the Problem Solving Mode 67

Figure 4.1. Three Phases in the Critical Review Mode 80

Figure 4.2. The Five Levels of Systemicity based on Flood, 1996a 90

**Figure 5.1. Paradigm, Metaphors, and Puzzle Solving:
Three Concepts for Understanding the Nature and
Organisation of Social Science 98**

Figure 5.2. Four Paradigms for the Analysis of Social Theory 100

Figure 5.3. The Critical Appreciation Model 108

Figure 6.1. Concepts of Ideology 117

Figure 7.1. Ladder of Citizen Participation 129

Figure 7.2. The Relationship between Three Kinds of Stakeholder 141

**Figure 7.3. The Relationship between Researcher and
Three Aspects of Knowledge 142**

**Figure 8.1 Three Types of Method to Understand Three Types
of Knowledge 146**

Figure 8.2. Methodology Evaluation through Ideology-critique 148

Figure 8.3. Three Phases in PME 152

**Figure 10.1. Methodology Evaluation and Learning through
Ideology-Critique 184**

Figure 10.2. An Assumption Rating Chart 186

Figure 11.1. Different Levels of the Taiwan Government Structure 196

Figure 11.2. The Organisation Chart of Tainan City Council 197

Figure 11.3. General Relation of Tainan City Council Environmental Bodies 200

Figure 11.4. Flow Chart for Implementing PME in TCC 201
Figure 11.5. Stakeholder Map of TCC 207
Figure 11.6. The Viable Systems Model 216
Figure 11. 7. Summary of TCC's Ideology Scenario..... 250

A Critical Process for the Evaluation of Methodology

We are surrounded by facts-the things about us that we can see, feel, hear, and smell. We believe in their reality, and often go further and feel that nothing else is real. But the common view of these as the inescapable basic data of existence overlooks the strong component of training and experience in the simplest perceptions.

Goldstein and Goldstein, 1978, p.12

Chapter One: Introduction

Chapter One: Introduction

1.1. Introduction.

Human beings follow a pattern of behaviour based on their knowledge. It is claimed that knowledge is necessarily derived from individual experience combined with social and cultural influences (e.g. Gregory, 1992), and this knowledge can be seen as a basis for the individual's value judgement. From Burrell and Morgan's (1979) point of view, individuals always hold a particular world view (a so-called 'paradigm'), according to which they perceive reality. This world view is derived from their learning experience and personal belief. Although an individual's world view might shift, he/she cannot hold two different world views at the same time. Thus, at a particular point in time, an individual can only interpret anything according to his/her current state of awareness. The question therefore arises, how can we escape from our own value assumptions (ideological traps) and socio-cultural judgements? Moreover, what can we do to deal with different social judgements and individuals' personal assumptions, in order to handle social conflict?

This thesis aims to discuss, from a critical systems perspective, how world views (which necessarily have ideological aspects to them) will influence methodology-users to choose particular methodologies for organisations. Here, I would like to stress the methodological level, rather than the level of method. As Checkland (1981) states, "a methodology is more precise than philosophy, but more theoretical than method or technique". Jackson (1991a) explains that methodology is used by a theorist in seeking to find out about social reality. Oliva (1996) indicates that there is a distinction between methodology and method in terms of their ontological foundation:

"A method emphasises that all objects in the universe are qualitatively of the same kind, whereas a methodology, as opposed to a method, is viewed as representing a higher order construct, a method of methods that examines systematically and logically the aptness of all research tools, varying from basic assumptions to special research techniques." (Olga, 1996, p.147)

Indeed, a methodology considers the basic values and assumptions of research procedure, whereas a method places more attention on research techniques and activities. This thesis is concerned primarily with the former.

The thesis also aims to create practical guidelines and a procedure which can help methodology-users (managers, problem solvers, etc.) to understand the value of a candidate methodology for a local circumstance. Through methodological understanding, self-reflection on the methodology-users' own assumptions, and dialectical debate about the organisational climate, we can find out why the candidate methodology might be (un)suitable for particular circumstances.

Commonly, the people affected by decision to use particular methodologies are not involved in the intervention process. Those who are affected are often unable to tell the methodology-users which methodology they think will be suitable. This means that we should not predetermine what methodology will be applied without first understanding the current situation, especially who is included and excluded from the methodology choice procedure. Many critical systems thinkers (e.g. Ulrich, 1983; Midgley, 1992a, 1997a) have already acknowledged this problem, as have the authors of Total Systems Intervention (Flood and Jackson, 1991a; Flood, 1995a). Total Systems Intervention (TSI) is a meta-methodology, based in Critical Systems Thinking, for guiding creativity, choice and implementation of other methodologies, and this will be used in this thesis as a basis from which my own ideas will be developed.

1.2. Critical Systems Thinking Requires Methodology-users to Reflect on Their Knowledge and Understanding of Methodology.

In the early development of systems thinking (e.g., Lotka, 1925; Whitehead, 1925; Cannon, 1929; von Bertalanffy, 1955, 1956), the concept of 'system' was used to integrate many natural science disciplines following a realisation that the world is too complex to understand using only one perspective. The next generation of systems thinkers (e.g., Churchman, 1957; Beer, 1959; Ackoff, 1960) expanded this concept to social and organisational study. Later developments of systems thinking in social study shifted to the interpretative sociological paradigm which appreciates individuals' values and assumptions (e.g., Ackoff, 1979; Checkland, 1981; Mason and Mitroff, 1981). In the 1980s, however, systems thinkers developed a new perspective called Critical Systems Thinking (CST). This, in turn, generated the practical meta-methodology, Total Systems Intervention (Flood and Jackson, 1991a; Flood, 1995a).

CST's commitments have been described and discussed by many systems thinkers (e.g., Oliga, 1989a; Jackson, 1991a,b; Schechter, 1991). Flood and Jackson (1991a) argue that CST claims three commitments: complementarism, critical awareness and emancipation.

Firstly, these authors argue that management systems methodologies should be used in a pluralist fashion in order to adequately address organisational complexity. Various methodologies have therefore been organised into a matrix model, the System of Systems Methodologies (SOSM, Jackson and Keys, 1984; Jackson, 1987a; Jackson, 1990). In this model, the assumptions made by a variety of methodologies in terms of the complexity of the problem situation and the nature of participation in problem solving are highlighted. Knowledge of these assumptions can be used to inform methodology choice. However, the SOSM has been criticised on a number of grounds which will not be explored further here (Gregory, 1992; Mingers, 1992; Tsoukas,

1993a,b; Dutt, 1994; Flood, 1995b,c; Midgley, 1990, 1995b,c). My own view is that it ignores the importance of the role of the methodology-user (problem solver) in methodology choice, focusing too much on the problem context and not enough on the methodology-users' interests and the limitations of the methodology-users' knowledge. In my view, methodology-users need to reflect on their own assumptions about various systems methodologies and their understanding of problem contexts as part of an intervention.

The second commitment, to critical awareness, is about revealing the assumptions underlying methodologies. A methodology might be considered suitable for a particular social circumstance if it embodies the same values or world view. Conversely, the methodology might be rejected in some social circumstances because it runs counter to the organisational culture, or people actually wish to change (rather than enhance) that culture.

Thirdly, human emancipation is particularly emphasised in CST. This can be achieved by means of challenging current power relations (Jackson, 1991a,b, building on the work of Habermas, 1972). Also, comprehensive communication and understanding in the organisation needs the meaningful involvement of different interest groups in the problem solving process, and power relations can jeopardise the abilities of these groups to express their views.

In this thesis, I have used CST to help create a methodology evaluation process. In particular, CST contributes the concept of 'critique' - which will be discussed later (following Gregory, 1992) in terms of self-reflection and ideology-critique.

1.3. TSI(2) Provides Concepts for Methodology Evaluation.

Flood (1995a) goes beyond the SOSM to introduce a meta-methodology called Total Systems Intervention. This will be referred to as TSI(2) in this thesis to differentiate it from an earlier version TSI(1) (Flood and Jackson, 1991a,c). TSI(2) explores how problem solvers should study systems methodologies and reflect on the consequences of their implementation. He argues that TSI(2) can be used in three modes, the Critical Review Mode, the Problem Solving Mode and the Critical Reflection Mode (see Figure 1.1).

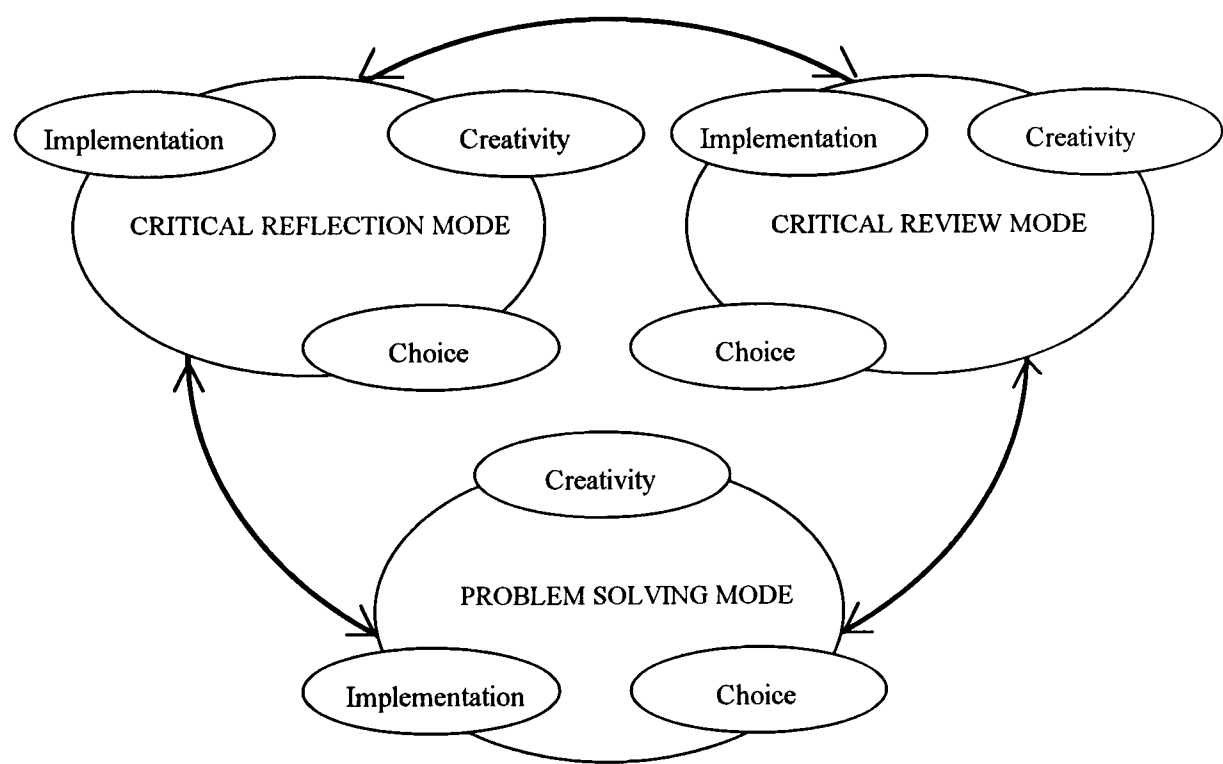


Figure 1.1. Three Modes of Total Systems Intervention
(source: Flood, 1995a)

Very often, management methodology-users will emphasise the problem solving mode, rather than the other two modes. However, it is important to note that a theoretical understanding of methodology can decrease unnecessary damage to the organisation when intervention begins (Jackson, 1987b; Flood, 1989a,b). Therefore, dynamic

methodology study needs to be conducted before the problem solving mode is exercised. While TSI(2) is represented in three modes, each mode also contains three phases: Creativity, Choice, and Implementation. TSI(2) is differentiated from other methodologies by this structure.

"The process of TSI guides the problem solving process by employing methods for creative thinking, choice of method(s) for implementation and the use of those method(s) to develop and implement innovative change proposals. To do this TSI must incorporate problem solving methods in its schema. It does this by critically reviewing methods bidding to be incorporated in the system of methods operated through the Problem Solving Mode, using to structure the critique the three phases of TSI and the four key dimensions of organisation." (Flood, 1995a, p.31)

The Critical Review Mode is a means of assessing the ways in which the methodology under review can be incorporated within, and be operated by, the process of TSI(2). It is obvious that any methodologies selected have to be critically reviewed and examined.

In TSI(2), the Critical Review Mode is designed to be a supplement to the Problem Solving Mode: "The Critical Review Mode is needed so that a system of methods is prepared, capable of tackling the complex and diverse problems that we are facing today." (Flood, 1995a, p.31). Here, the interesting issue arises of whether we can use the Critical Review Mode as a framework to examine and criticise problem solving methodologies, to give methodology-users greater understanding about what they are going to do with an organisation. Therefore, it might be useful to look at the Critical Review Mode in more detail and see how it can help methodology-users.

Flood (1995a) and Wilby (1996) emphasise that the Critical Review Mode should be implemented before the Problem Solving Mode. The Critical Review Mode involves undertaking theoretical research in order to understand various candidate

methodologies, with the emphasis on whether or how a candidate methodology can improve intervention in organisations. Moreover, the Critical Review Mode helps methodology-users create a database-like system of methods which enable methodology-users to choose (a) appropriate methodology(ies) to solve organisational problems.

This study began as a development of the Critical Review Mode but, during the course of my research, I realised that I had developed it in such a way that it amalgamated the Critical Review Mode with the creativity and choice phases of the Problem Solving Mode. As this breaks with the basic structure of TSI(2), I therefore decided to recast my ideas as a new methodology which can either be used instead of, or within, TSI(2). The basic concern of this new methodology is how methodology-users and organisational stakeholders can examine ideological issues in order to make more informed choices concerning candidate methodologies. The strengths and weaknesses of this, compared with TSI(2), will be explored as part of the thesis.

This work is concerned with the underlying assumptions made by methodology-users, candidate methodologies (expressed in the writing of their authors), and stakeholders in and beyond the organisation. It argues that methodologies should not be classified into fixed categories. Instead, a methodology should be interpreted according to the current organisational context and methodology-users' assumptions. The process of interpretation should be critical, in that assumptions should be subject to review and, as far as possible, be made transparent to, and open to change by, those who will be affected by intervention.

1.4. The Aims of the Thesis.

This thesis aims to:

1. argue that interpretations of methodologies are ideologically influenced by individuals' beliefs and social circumstances;
2. provide a new critical process for methodology-users to help them evaluate a given methodology prior to (possible) implementation;
3. compare and contrast this with TSI(2);
4. test this process by subjecting a methodology to critical review within the context of a local government organisation in Taiwan.

1.5. The Structure of the Thesis.

After this introductory chapter, the remainder of this thesis will be divided into the following chapters.

Chapter Two: An Overview of the Development of Critical Systems Thinking

This chapter will discuss various systems methodologies which are based in different paradigms. These will be criticised according to the strengths and weaknesses identified in the literature. Critical systems thinking will be introduced and it will be shown how this can enrich our understanding of social contexts and problem solving by providing a critical, theoretical basis for contextualising other systems ideas. In the end, CST's three themes will be introduced as the basis for the critical methodology evaluation process.

Chapter Three: The Application of Critical Systems Thinking through Total Systems Intervention

Since TSI is regarded as a practical face of CST, this meta-methodology will be discussed in more detail in order to understand its principles, process and utility. The first version of TSI (Flood and Jackson, 1991a,c) will be described. This employs critical systems ideas to design a framework for problem solvers to enhance their knowledge of, and choice of, systems problem solving methodologies. Flood (1995a) explores the first version and argues that TSI can be used in three modes. In his new version of TSI (TSI(2)), several criticisms of the earlier version have been addressed. Moreover, TSI is not only seen as a problem solving meta-methodology but also as a procedure for managers or management problem solvers to evaluate the strengths and weaknesses of systems methodologies and reflect on intervention. This chapter describes the philosophy, principles and process of the two versions of TSI. Comparison is made between them and it is shown how TSI(2) can enrich our understanding of organisational issues and systems methodologies.

Chapter Four: Recent Thinking on the Critical Review Mode and the Critical Reflection Mode

This chapter highlights significant improvements in TSI(2) in terms of the Critical Review Mode and the Critical Reflection Mode. Flood's and Wilby's contribution (Flood, 1995a; Wilby, 1996) to the development of the Critical Review Mode of TSI(2) is highlighted. They have developed clear concepts of how problem solvers can review and choose an appropriate methodology for an organisation. Wilby (1996) has created a detailed procedure for using the Critical Review Mode, presented in six steps which are operated within the three phases. TSI(2) also provides a valuable framework for critical reflection in addressing the issue of whose interests have been served. The Critical Reflection Mode also sheds light on how organisational learning can be achieved through such a reflection process. It is clear from this work that methodology

review and reflection should be regarded as important aspects of the intervention process.

Chapter Five: The Paradigm Problem

In Chapter Five, the nature of 'paradigms' will be illustrated, and the issue of how they influence individuals' choice of methodology will be considered. Furthermore, the argument between paradigm 'communication' and 'incommensurability' will be discussed. In particular, in terms of inter-paradigm communication, Gregory's (1992) theory of the Critical Appreciation Model will be highlighted. Moreover, in relation to paradigm communication, the argument will be advanced that individual assumptions and interpretations of a methodology will be influenced by social ideology. Indeed, the ideological assumptions of the methodology users, organisational/environmental stakeholders, and the ideology underlying the production of the methodology can all influence each other. These are therefore the three key aspects to focus upon when evaluating the potential for using a candidate methodology in a given circumstance.

Chapter Six: The Need for Ideology Critique

This chapter reveals the relationship between 'paradigm' and 'ideology'. It argues that our beliefs and assumptions are not naturally inherent, but are the results of interfaces between individuals and the surrounding society. Paradigmatic beliefs and assumptions can be viewed as 'ideological' when they are seen as influencing political behaviour (political in the widest sense, meaning behaviour in the perceived interests of a particular cause or group of people). In particular, ideology is important in the choice of methodology. Thus, to be critical, methodology-users should not rely only on their personal knowledge and understanding (their own ideology); rather, they should be open to wider perspectives. Indeed, there are many different ideologies in our society. It is important to respect them, rather than reject them out of hand, and the process of ideology critique (dialectical discussion of the various ideological driving forces of

different groups of stakeholders) will enrich methodology-users' understanding and knowledge. Most importantly, ideology-critique has to be a critical learning process; individuals can learn from others' perspectives.

Chapter Seven: The Stakeholders of Methodology Evaluation

This chapter aims to answer the question, who should be considered as the stakeholders of a methodology evaluation process? I argue that methodology evaluation should not be done only by considering the methodology-users' personal understandings and preferences. Instead, methodology evaluation should be viewed locally in terms of three aspects; methodology-users, the methodology itself, and both organisational and environmental stakeholders. This thesis argues that all three will have ideological perspectives. Thus, to judge the possible result of applying a methodology in an organisation, one needs to understand whether there is ideological harmony or friction between the various perspectives.

Chapter Eight: A Methodology for Methodology Evaluation

This chapter aims to introduce the substance of the new methodology, called 'Participative Methodology Evaluation' (PME). The methodology helps organisational stakeholders and methodology-users gain an improved understanding of the different assumptions made within an organisation, by the methodology, and by the methodology-user him or herself. Thus, methodology-users and/or stakeholders can consider how they will deal with such differences. This evaluation process is in fact concerned with ideology-critique of the beliefs and assumptions which lie behind each of the three perspectives (sub-perspectives). Following the evaluation, there are a number of scenarios for action that can be suggested for the organisation. More details and practical methods will be introduced in Chapter 10.

Chapter Nine: Comparison between PME and TSI(2)

This chapter aims to elucidate where and when PME may be useful, and to compare it with TSI(2). It will be argued that PME can help methodology-users and organisational/environmental stakeholders to explore their assumptions about the candidate methodology. It will be concluded that PME is best used when a candidate methodology has already been chosen, while TSI(2) is best used when a "mess" is perceived and there is a lack of clarity about which methodology might be most suitable. Thus, PME can be used either independently or within TSI(2) to enhance the choice phase if a double-check is needed.

Chapter Ten: Designing A Method for Implementation

This chapter will show what should be done in the PME evaluation process, and how the evaluation process can be conducted. Chapter 8 will have presented the general methodology. Here, three main stages will be designed to implement the evaluation. This chapter firstly indicates how PME-practitioners can surface and understand the three aspects of the interpretation of methodology: from the perspective of the literature on the methodology (expert knowledge), from the perspective of the methodology-user, and from the perspectives of organisational and environmental stakeholders. Most importantly, the ideological assumptions behind each interpretation are revealed. Secondly, the evaluation process employs dialectical means to enrich each understanding of the candidate methodology. Thirdly, some suggestions are provided for the organisation in the form of recommendations. Through this evaluation method, stakeholders and methodology-users can exchange their ideas on the organisational situation and learn from each other.

Chapter Eleven: Application in Tainan City Council (a Pilot Case Study)

In order to see how PME might be able to help stakeholders and methodology-users decide if a candidate methodology is (un)suitable for an organisation, a pilot case study is presented. Tainan City Council (Taiwan) offered me an opportunity to evaluate the Viable Systems Model (VSM) by means of PME. Reflections on the case study indicate that significant insights into the likely effects of using the VSM were generated. While this suggests that PME could be a useful methodology for organisations.

Chapter Twelve: Reflections Emerging in the Application of PME

A final reflection was carried out by giving presentations to the stakeholders of TCC and the methodology-user separately. This chapter aims to reveal the impacts on TCC and participants how organisational/environmental stakeholders assumptions have been affected by the application. Some difficulties of implementation it will also be revealed and discussed, giving rise to proposed suggestions for future research.

Chapter Thirteen: Conclusions

The final chapter will demonstrate that the aims of the thesis have been met.

Chapter Two: An Overview of the Development of Critical Systems Thinking

Chapter Two: An Overview of the Development of Critical Systems Thinking

2.1. Introduction.

This chapter aims to review the emergence of Critical Systems Thinking. It begins by introducing the wider concept of 'systems thinking'. It is important to see how systems ideas can enrich our understanding of both 'reality' and 'organisational issues'. Then four main streams of systems thinking development will be discussed and criticised in terms of their strengths and weaknesses. They are: hard systems thinking (e.g. traditional Operational Research, Systems Engineering, Systems Analysis); systems cybernetics; soft systems thinking (e.g. Social Systems Design, Soft Systems Methodology); and emancipatory systems thinking (Critical Systems Heuristics). Finally, an important new direction in systems thinking (Critical Systems Thinking) will be presented. This thesis argues that Critical Systems Thinking embraces three themes: methodological pluralism, critical awareness and emancipation (Flood and Jackson, 1991a), that enrich systems thinkers' understanding of social complexity and improve their ability to deal with human affairs.

2.2. About Systems Thinking.

The concept of 'system' is a familiar word nowadays. In modern organisations, the idea of 'system' has been used to guide people to solve their problems in an organised manner. In this section, first of all, there is a need to understand the meaning of 'system' and its usage in a general sense. Secondly, we will see how 'systems thinking' has been applied in the organisational and management sciences. It is also necessary to

reveal how systems thinking is able to help organisations to manage their thinking and improve their abilities to deal with organisational complexities.

2.2.1. The concept of 'system'.

Ackoff (1960) broadly defines a system as "any entity, conceptual or physical, which consists of interdependent parts." (p.4). Thus, it can be widely used to describe entities such as transport networks, computers, bodies, organisations, firms, societies, etc., as well as idea structures like human activity systems and methodologies. Jordan (1969) argues that the definition of any specific system depends on its characteristics; the only thing that is common to all systems is that they contain identifiable entities and identifiable connections between them. Thus, a system is a recognisable whole that consists of a number of parts (called components or elements) that are connected in an organised way (the system's structure), and the components interact (Kramer and Smit, 1977; Waring, 1989). A system will lose its character if it is taken apart. Moreover, a physical system cannot live without its environment with which it needs to exchange inputs and outputs. The system has a boundary identifying where it ends and the environment begins. Without a boundary, a system and its environment cannot be identified (Churchman, 1979a).

2.2.2. The emergence of systems thinking and its use in organisational management.

It is usual to cite von Bertalanffy as the originator of systems thinking, although there were a number of earlier thinkers pointing to very similar ideas (e.g. Bogdanov, 1913, 1917; Angyal, 1941). However, von Bertalanffy is certainly a good starting point because he popularised the systems concept. Von Bertalanffy (1950, 1956) uses the notion of 'system' as a means of cutting through the substantive differences which exist

between different academic disciplines. The subject matter of chemistry, physics, biology, etc., are linked in his view by the fact that they study "complexes of elements standing in interaction" (von Bertalanffy, 1950, p.21), that is, 'systems'. The task of his General Systems Theory is to discover the principles of organisation which underlie such systems. One of its general aims is to achieve a "unity of science" based upon "the isomorphies of laws in different fields." (von Bertalanffy, 1956, p.76). Indeed, according to von Bertalanffy, systems thinking should incorporate various disciplines that can provide different knowledges to enhance our understanding.

Recently systems theory has been widely applied in various disciplines: for example, in sociology, psychology, anthropology, archaeology, linguistics, organisation theory and industrial relations. In these and many other social science subjects, "systems theory has become established as an important analytic approach." (Burrell and Morgan, 1979, p.57). Nevertheless, the focus of this thesis is the management sciences. Emery (1969) poses the question, "How is systems thinking relevant to the thinking required for organisational management?". He believes that it has been shown that living systems, whether individuals or populations, have to be analysed as "open systems" which cannot be isolated from their environment. His view is that human organisations are also living systems and should be analysed in a similar manner (p.8). According to Kast and Rosenzweig (1981), systems thinking within the domain of organisational problem solving is an analogy for the analysis and design of organisations, and its major implication is the necessity to revise or broaden our view of what constitutes 'science'. Systems thinking can be regarded as a holistic concept pointing to the need to gain comprehensive knowledge. Kramer and Smit (1977) argue that systems thinking can play an important role in the development of theories of organisation and management because organisations are so complex; in order to understand them and gain fruitful results, many relevant monodisciplines must be integrated to add their share of knowledge regarding the many different aspects we have to deal with.

Churchman (1979b) suggests that, at the broadest level, the systems approach belongs to a whole class of approaches to managing and planning our human affairs that promote the idea that we, as a living species, should conduct ourselves properly in this world. It is important to note that systems thinking is a vital vehicle to organise different disciplines in order to solve complex problems. Consequently, systems thinkers realise that organisational problems or circumstances cannot be simply understood by means of traditional scientific concepts alone. Checkland (1981) concludes:

"Systems thinking is an attempt, within the broad sweep of science, to retain much of that tradition but to supplement it by tackling the problem of irreducible complexity via a form of thinking based on wholes and their properties which complements scientific reductionism." (p.74)

Ackoff (1981) indicates that 'machine age thinking' is reductionist. Reductionism holds that, in order to understand something, that thing has to be taken apart conceptually or physically. In contrast, in the 'systems age', increased understanding is believed to be obtainable by looking at whole systems, not by reducing them to their elements.

"Systems thinking is a framework of thought that helps us to deal with complex things in a holistic way. Giving an explicit definition and conventional form to this thinking is what we have termed 'Systems Theory'." (Flood and Carson, 1993, p.4)

Different versions of systems thinking have emerged and given rise to several different systems methodologies. In the next few sections, an attempt is made to focus on the application of various types of system thinking in problem solving. I will look at the strengths and weaknesses (as they have been discussed in the literature) of 'Hard Systems Thinking' (e.g. traditional systems approaches), 'Systems Cybernetics' (such as the Viable Systems Model), 'Soft Systems Thinking' (i.e., interpretive systems

approaches) and 'Emancipatory Systems Thinking'. Finally a new direction, Critical Systems Thinking, will be discussed.

2.3. Hard Systems Thinking.

The hard systems concept implies machine-like systems which are designed as means to achieve pre-determined ends. These systems concepts are derived from mechanical or biological analogies. They emphasise organisational efficiency and effectiveness (Ackoff, 1979; Churchman, 1979a; Checkland, 1978,1981; Jackson and Keys, 1984; Jackson, 1985a). Waring (1989) indicates that hard systems have clear structures and well-defined processes that are readily measurable. Such quantifiable attributes enable a system's behaviour to be predicted, monitored and controlled. Flood and Carson (1988) describe hard contexts as being easily and non-controversially structured, and so relatively easy to measure and quantify, behaving according to known laws, and having a high degree of predictability.

Hard systems thinkers assume that natural science-based systems concepts can equally be employed to intervene in human beings' affairs, such as dealing with organisational problems. They also believe that quantitative models can be used to pursue optimal solutions. In this case, hard systems methodologies are characterised by the pursuit of pre-defined goals in well-structured problem solving procedures. As an example, Systems Engineering (Hall, 1962) exhibits the basic characteristics of hard systems thinking. Checkland (1981) argues that systems engineering comprises the set of activities which together lead to the creation of a complex man-made entity and/or the procedures and information flows associated with its operation.

Obviously, the key assumption underpinning the approach to problem solving adopted by hard systems methodologies is "the ability to construct and manipulate a model of a

situation under study." (Keys, 1991, p.178). Reviewing several existing management approaches, Jackson (1991a) classifies systems engineering, systems analysis, operational research, decision science, and management cybernetics as belonging to the overall category of hard systems thinking.

Undoubtedly, hard systems methodologies have made a real contribution in helping people deal with situations in which there are clear and well-structured objectives. Hard systems methodologies can be used as effective tools for problems solving if the problem can be clearly defined and easily agreed (Jackson, 1991a). However, hard systems methodologies have been criticised for simplifying objectives and ignoring value issues in some circumstances (Checkland, 1981).

2.3.1. Difficulties in hard systems thinking.

Ackoff (1981) associates goal-directed, hard systems methodologies with "outdated" machine age thinking:

"The current methodology of management is predominantly based on Machine-Age thinking. When managers are confronted with large complex problems or tasks, they almost always break them down into solvable or manageable parts; they "cut them down to size." Then they arrange to have each part solved or performed as well as possible. The outputs of these separate efforts are then assembled into "solutions" of the whole. Yet we can be sure that the sum of the best solutions obtained from the parts taken separately is not the best solution to the whole." (Ackoff, 1981, p.18)

Hard systems thinkers have simply applied the idea of system as a functional tool to solve problems. In some circumstances this can be appreciated. For instance, hard systems methodologies might be helpful for solving an organisation's technical problems such as making its organisational processes more efficient (Flood, 1995a). Nevertheless, they cannot address all the problems that occur between human beings.

As mentioned earlier, social phenomena cannot be understood simply by observing them or taking them apart. They are sometimes messy and ill-structured (Checkland, 1981). Moreover, the premise of the success of hard systems methodologies is that there is agreement in organisations, which is not always the case (Jackson and Keys, 1984). Moreover, powerful groups may pursue their purposes in terms of their own interests, creating a pseudo consensus by means of their power (Jackson, 1987b). This kind of autocratic decision making process can cause serious damage in the long term, as the pre-set goal taken for granted by hard systems methodologies might not be in the interests of all. Therefore, the question arises: when do we need a different methodology, which is based on a distinct paradigm, to assist systems thinkers to solve more complex social problems?

2.4. Systems Cybernetics.

One alternative to hard systems thinking comes in the form of systems cybernetics. Beer (1959, 1979, 1981, 1985) indicates that cybernetics is the science of effective organisation. He also quotes from Wiener (1948) that cybernetics is the science of communication and control in the animal and the machine. Systems cybernetics seeks to deal with extremely complex problem contexts, which hard systems thinking cannot handle. As Jackson (1991a) argues, a cybernetic system can cope with a situation which was not predicted when the system was designed. Systems cybernetics is based on Ashby's 'law of requisite variety': only variety can destroy variety (Ashby, 1956, 1960). This means that, in order to control a system and deal with unanticipated changes, an organisation needs to have as much variety (complexity) available to it as is exhibited in its environment. Clearly, systems cybernetics is different from traditional systems thinking in terms of its emphasis on communication and control, which improve understanding, co-ordination and effectiveness in organisations.

Jackson (1991a) identifies two types of systems cybernetics; management cybernetics and organisational cybernetics.

- Management cybernetics employs analogies of machines or organisms, and emphasises an input-transformation-output schema. It emphasises that an organisation is disturbed and affected by its environment; thus, managers need to be equipped in order to deal with such disturbances. The concepts of feedback and regulation are vital in management cybernetics.
- Organisational cybernetics is, in Jackson's (1991a) view, more advanced than management cybernetics. Organisational variety is the key factor. A system's present goals will not necessarily be determined by its environment or higher level recursions; the system can change its present goals according to both internal and external changes. Therefore, in organisational cybernetics a system is, in fact, an autonomous entity which can deal with internal and external changes which were not foreseen when the system was designed.

Beer (1985) has made a great contribution in enhancing the organisational cybernetics concept. Beer's Viable System Model (VSM) exhibits two cybernetic building blocks: negative feedback and variety engineering. The VSM addresses the importance of various communication channels which are connected within the system and the environment. The VSM amplifies a system's variety and communication function in order to deal with environmental complexity.

To sum up, organisational cybernetics provides a means of dealing with environmental complexity. It is different from the traditional management sciences, in that the latter require predetermined goals which can be reduced into smaller sub-goals. In contrast,

cybernetic approaches assume that organisations can be structured so that they can set their own goals that are appropriate to the environment they interact with.

2.4.1. Criticisms of systems cybernetics.

Although organisational cybernetics is described as a new perspective in systems management, particularly because it creates proper communication and control channels to enhance organisational effectiveness and efficiency, it nevertheless neglects some important factors in organisations. Ulrich (1983) argues that cybernetics could be misused as a tool to create an autocratic mechanism in government or organisations. Indeed, the first premise of success in implementing cybernetics is the existence of a common consensus within an organisation (Jackson and Keys, 1984). Thus, in order to achieve efficiency, an overarching goal might be predetermined by a powerful group(s). An example is the pursuit of profit. An illusion can be created of the organisation setting its own goals as it interacts with its environment, but each of these goals takes the necessity of pursuing profit for granted. In this sense, the criticism of cybernetics is that cybernetics is not critical enough to leave the functionalist paradigm (Jackson, 1991a,b); human beings in the organisation are still seen as mechanical components, and the whole organisation is treated as if it were a large machine.

Flood and Jackson (1991a) argue that organisational cybernetics stresses structure, communication and the control process, but neglects qualities brought by the human actors who make up organisations. It encourages organisations to achieve prediction and control in the social domain but lacks self-reflectiveness about the social uses to which it may be put. Romm (1995) also indicates the danger of Beer's approach: its appeal to the "science of effective organisation" is that it requires "participants" (as Beer calls them) to accept the cybernetic vision of "what really is a viable system".

Already by "seeing" the laws of viability and using this as a basis for diagnosing the "real" faults in particular systems, solutions to problems are constrained. (p.157)

Obviously, the contention remains that goal-oriented and functionalist systems thinking (including cybernetics) cannot solve ill-structured problem situations. In the next section, a different form of systems thinking, which is derived from a different social paradigm, will be presented.

2.5. Soft Systems Thinking.

Levison (1974) argues that observations of the social structure of an alien society will be of little value unless they are accompanied by an understanding of the structure from the point of view of the members of that society, rather than from the cultural standpoint of the scientific observer. Thus, we must take account of the inner, subjective or inter-subjective views of the persons or societies under study. Many systems thinkers (e.g., Churchman 1971; Ackoff 1974a,b; Checkland 1981) have realised that the positivist, functionalist paradigm is insufficient to explain our society, let alone support problem solving. Indeed, as Mingers (1984) indicates,

"The physical world consists of entities and structures which are independent of the observer's concepts but the social world consists only of individuals' concepts, structures and intentions. There are no separable social objects or structures." (p.85)

In contrast to hard contexts, soft contexts are difficult to capture through one perspective, difficult to quantify, and usually have a number of conflicting theories associated with them. "Soft systems explicitly concern behaviour in human activity systems and especially tangled webs of conflict, unease, misunderstandings and uncertainty that are difficult to unravel, let alone 'solve' by conventional means." (Waring, 1989, p.215). Thus, hard systems approaches are attacked as being unable to

cope with complex, ill-structured problems (Checkland, 1981; Flood and Carson, 1993). If we assume that defining a problem is itself a problematic issue, how can we find agreed objectives? Obviously, people have different perspectives from which to see problem contexts. Checkland (1981) uses the term *Weltanschauung* (W) to imply that human beings' activities are dominated by particular mental frameworks that inform their perspectives. As mentioned earlier, hard systems approaches assume that the objectives can be predetermined. That is to say,

“Hard systems methodology is concerned only with a single W: a need is defined or an objective is stated, and an efficient means of meeting the need or reaching the objective is needed.” (Checkland, 1981, p.219)

However, those objectives/goals might have been decided by a limited group of people with limited perspectives, who use hard systems approaches as the means to achieve their interests. In contrast, soft systems approaches tend to respect various individual and group perceptions and bring these into the problem solving procedure. Soft systems thinking is based on inter-subjectivism (Checkland, 1975): it deals with people and their perceptions, values and interests. It is argued that, as systems thinkers, we should not avoid subjectivity, but should include it in any definition of objectivity. As Churchman (1979b) says, "every world view is terribly restricted", so there is a need to "sweep in" as many as possible (p.21). This idea is very important when we are applying systems concepts to deal with organisational problems, as it implies the need to trace individual world views and relate them together. Soft systems methodologies emphasise individuals' Ws, but they also seek to build accommodation among stakeholders. In Checkland's (1981) view, they are also concerned with sets of human activities linked together so that the whole constitutes some purposeful action. Checkland (1987) calls such systems 'human activity systems'.

Jackson (1991a) also indicates that "Checkland's methodology seeks to work with different perceptions of the situation, setting in motion a systemic process of learning in which different viewpoints are discussed and examined in a manner that should lead to purposeful action in pursuit of improvement." (p.158). The job of SSM therefore never reaches an absolute conclusion: it provides an on-going learning *process* (Checkland, 1981).

In the soft systems thinking field, there are several main strands, such as Churchman's (1979a) Social Systems Design, Checkland's (1981) methodology (Soft Systems Methodology), Ackoff's (1981) Interactive Planning (IP), and Mason and Mitroff's (1981) Strategic Assumption Surfacing and Testing (SAST). They emphasise individuals' participation rather than being goal-directed. The main differences between hard and soft systems thinking are that soft systems thinking reflects interpretive rather than positivist theory; it focuses on qualitative rather than quantitative analysis; and aims to manage messes adequately rather than to solve problems correctly (Checkland, 1981; Ackoff, 1981; Flood and Jackson, 1991c).

Soft systems methodologies present an appropriate framework that can operate effectively in situations where hard systems approaches run into difficulties (Jackson and Keys, 1984; Keys, 1991). They have

“... been developed for use in ill-structured or messy problem context where there is no clear view on what ‘constitutes the problem’, or what action should be taken to overcome the difficulties being experienced.” (Flood and Jackson, 1991a, p.168)

However, in practice, soft systems methodologies encounter a major difficulty: the power relations implicit in consensus creation. How can organisational stakeholders participate in decision making processes as though they are without any constraints? In the next section, I will elaborate on this issue.

2.5.1. The Dilemma in soft systems thinking.

Soft systems thinking has considered the limitations of hard systems thinking. Yet it still ignores the power existing in organisations and society. Jackson (1982) argues that none of the soft systems methodologies are capable of removing the existing biases due to power, and a suggestion is made that a means of negating the biasing effects of power should be used prior to the use of any of these methodologies. "The exercise of power in the social process can prevent the open and free discussion necessary for the success of work and interaction." (Jackson, 1991a, p.12). Soft systems thinking assumes the existence of free, open and democratic debate among all stakeholders (Schechter, 1991). It may be questioned how stakeholders can express their values and interests precisely, or at all, if powerful groups abuse the democratic situation. Flood and Jackson (1991a,c) argue that Soft Systems Methodology (Checkland, 1981) is best suited to situations where there is a coalition of organisational stakeholders and the need is to create, temporarily at least, a shared appreciation among these stakeholders of what is the best way forward from a given problem situation. However, Soft Systems Methodology should be avoided in coercive situations because it lends its support to already powerful decision makers (Flood and Jackson, 1991a). The fundamental basis of all soft systems methodologies is inter-subjectivism and the achievement of participation; they seem to lack sufficient approaches to deal with the effects of unequal status and influence in an organisation, or within the wider society. Therefore, in the next section, emancipatory systems thinking, which addresses this issue, is brought into the discussion.

2.6. Emancipatory Systems Thinking.

Systems thinkers' realisation that soft systems methodologies still cannot cope with all complex social affairs, especially in coercive situations where power relations exist, led to the emergence of emancipatory systems thinking, which (in my view) is among the most significant developments in the systems thinking field. Mingers (1980) argues that, to avoid distortions created by society and our own psychological development, a 'critical' approach is needed. Mingers (1980) cites Habermas's critical theory (1972, 1974), which aims to enlighten individuals', and says we should explore the distortions in our understanding at a personal and social level through psychoanalysis and critical social theory. Jackson (1982) also criticises soft systems methodologies as not being critical enough to deal with real world conflicts. The view of the social world that soft methodologies encourage is essentially regulative and accepts existing social inequalities, which should not necessarily be tolerated.

While Mingers and Jackson were the first critics of soft systems thinking (Mingers, 1980, 1984; Jackson, 1982), Ulrich (1983) was the first to advance a well worked out alternative. Ulrich's (1983) Critical Systems Heuristics is derived from the dialectical and whole systems approach of Churchman, but incorporates critical ideas from Kant (1787) and Habermas (1972). He argues that Critical Systems Heuristics is a new approach to both systems thinking and practical philosophy that aims to help the applied scientist engage in critical planning activities (Ulrich, 1987). In his theory, he criticises social design in which an 'expert' simply sets goals to be achieved and means to be followed. He considers Habermas's theory (1972) that legitimate social planning can only be achieved by subjecting plans to debate in an 'ideal speech situation' (a situation free from power constraints), but argues that Habermas's ideal speech situation is not practical enough to implement in the real world. This is because the ideal situation is supposed to produce rational argument which is based on the ability and will of all participants to argue cogently and to rely on nothing but the force of the

better argument. However, it does not take account of the "inevitability of argument break-offs" (Ulrich, 1987). He argues that a method is needed by which practical judgements can be constantly reflected upon and their partiality revealed by ordinary everyday accounts of the nature of social experience. Ulrich (1987) explains Critical Systems Heuristics (his methodology and method) thus:

"Critical Systems Heuristics is a new approach to both systems thinking and practical philosophy, an approach that aims to help the applied scientist in respect to this task. It does not seek to prove theoretically why and how practical reason is possible (as do all presently known "schools" of practical philosophy) but rather concentrates on providing planners as well as affected citizens with the heuristic support they need to practice practical reason; i.e. to lay open, and reflect on, the normative implications of systems designs, problem definitions, or evaluations of social programs." (p.105)

Critical Systems Heuristics has two uses (Midgley, 1997a). The first is concerned with helping planners "make transparent to themselves and others the presuppositions that inevitably enter into social system design." (Ulrich, 1983, p.40). The second offers "a practical tool which ordinary citizens can use to engage planners in rational discourse about the partiality of their plans." (p.47). Planners should not only self-reflect about their own designs, but should also debate their design with 'witnesses' - representatives of those affected but not involved. The originality and significance of Critical Systems Heuristics lies in its provision of a methodology for generating critical awareness. Ulrich (1983) insists that the systems rationality of planners should always be tested against the social rationality of the affected.

Nevertheless, Jackson (1985b, 1991a) criticises Critical Systems Heuristics because it only addresses organisational issues in terms of the emancipatory interest. He argues that it would be wrong to see Ulrich's approach as advancing critical systems goals because, first, it is not committed to the complementary and informed use of varieties of systems thinking at the theoretical and methodological levels (which Jackson says a

critical systems approach should be); and second, it is only partially 'socially aware'. By this, Jackson means that it only recognises coercion in the form of insincere communication or exclusion from participation in planning. It does not recognise the possibility of coercion rooted in the very structure of society, where some people have a power advantage over others that is granted by their ownership of the means of production. In this sense, according to Jackson, Ulrich neglects the insights of Marx.

2.7. Critical Systems Thinking.

Some systems thinkers have realised that there are problems with all the systems approaches mentioned so far. Critical Systems Thinking (CST) was therefore developed to reflect upon and enhance the use of systems thinking (see e.g. Flood and Jackson, 1991a,c; Flood and Romm, 1996a,b for seminal works). CST was created partly because of the limitations of hard and soft systems thinking, and partly because of the perceived need to focus on human emancipation and power relationships. Initial work in CST drew upon Habermas's theory of Knowledge of Constitutive Interests (1972, 1974). Habermas identifies three interests - the technical interest in the control and manipulation of the physical and social world; the practical interest in communicating with, and understanding other people; and the emancipatory interest in freeing ourselves from false ideas. He emphasises the need for debate in an ideal speech situation, which can only be achieved by allowing the open questioning of any assumptions made by participants. Otherwise, any endeavours to achieve common consensus will become distorted.

In Habermas's view, empirical analysis has provided a successful way to conduct the natural sciences, but it has come to dominate the production of knowledge in such a way as to ensure that the only focus is the technical interest. If Habermas is right, historical-hermeneutics is needed to pursue the practical interest, as well as self-

reflection and ideology-critique to pursue the emancipatory interest. These provide a necessary complement to the empirical-analytic pursuit of the technical interest. They should be treated equally.

"All human beings have technical, practical, and emancipatory interests in the functioning of organisations and society. So a systems perspective that can support all these various interests has an important role to play in human well-being and emancipation; and this is exactly what critical systems thinking wants to achieve."
(Jackson, 1991a, p.186)

CST is a holistic concept, which seeks to enhance all three means of achieving knowledge. Flood and Jackson (1991a) put it thus:

"It is clear that hard and cybernetic systems approaches can support the technical interest, soft methodologies the practical interest, and critical systems heuristics can aid the emancipatory interest." (p.49)

To summarise, CST aims to

1. deal flexibly and responsively with complexities;
2. learn from the strengths and weaknesses of various strands of systems thinking;
3. emphasise the importance of human beings' freedom from social constraints.

In so doing, Jackson (1991a) claims five commitments; complementarity at the methodological level, complementarity at the theoretical level, critical awareness, social awareness, and human emancipation. Flood and Jackson (1991a) state more briefly that critical systems thinking stands on three commitments: complementarism, sociological awareness and the promotion of human well-being and emancipation. Other authors use different terms to describe CST. Gregory (1992) argues that methodological and theoretical complementarism can be treated under one heading. In

addition, critical and sociological awareness are both concerned with the issue of the strengths and weaknesses of various systems methodologies and their consequences in practical application. Midgley (1995a) claims three themes (rather than commitments): improvement, critical awareness and methodological pluralism.

Although different authors use different terms to describe CST, they all argue that it is a broad critical science employed with a systems perspective. This chapter will discuss CST in terms of three themes: methodological pluralism, critical awareness, and emancipation. These have been chosen because, in my view, they represent the main concerns of critical systems thinkers in the most succinct manner, without losing any vital richness in the ideas.

2.7.1. Methodological pluralism.

The development of a variety of management sciences has given rise to different views on solving complex problems. Questions therefore arise such as, can organisational problems be solved by means of a single methodology? If not, how can management scientists relate different management methodologies together? CST argues that hard and soft systems methodologists are imperialist, seeing only one methodological position as valid (Jackson, 1987a; Flood, 1989a,b). Those systems methodologies lack sufficient breadth of view to look at whole problem situations. However, CST is different in that it admits that different systems methodologies are most appropriately applied in different situations. Jackson (1987a) expands Reed's (1985) account of possible "re-directions in organisational analysis", and says that CST advocates methodological pluralism, which is contrasted with pragmatism, isolationism and imperialism.

- "The pragmatist strategy is to develop management science by bringing together the best elements of what may appear to be opposing strands on the criterion of what 'works' in practice." (Jackson, 1987a, p. 462). Pragmatism seeks the way to get work done. However, it ignores how to learn from practice by theory building. Flood (1989b) argues that pragmatists use parts and techniques in a heuristic fashion. This is dangerous because, without theoretical understanding, learning about methodology can only be by trial and error, making it difficult to avoid unanticipated consequences of implementation. Theoretical understanding enables methodology-users to reduce costly mistakes. Theories can also be seen as forms of knowledge which bridge the gaps between different methodology-users (Jackson, 1987a).
- Isolationists focus only on their favoured approach, whether hard, soft, cybernetic or emancipatory. As Jackson (1987a) puts it:

"The isolationist strategy pictures the different strands of management science as continuing to go their own way, developing independently on the basis of their own presuppositions and with minimal contact between the strands." (p.460)

The isolationist management strategies regard their own methodologies as sufficient to deal with all organisational issues. Moreover, since the variety of management strands are based on different presuppositions that guide the activities of practitioners, isolationists insist that paradigm incommensurability cannot be solved. Some isolationists have one preferred theory and one preferred methodology. Others have a single theoretical position, but accept commensurability at the methodological level (Flood, 1989a,b). Thus, a range of methodologies may be used according to problem context, but as defined from one theoretical world viewpoint.

- Imperialism insists on upholding a certain core methodology; other methodologies are explained and used only within the framework and perspective of this. In this situation, imperialism might ignore some theoretical issues.

"The imperialist strategy assumes that one or other of the strands of management science is fundamentally superior and can provide suitable premise for the development of the discipline, but is willing to incorporate aspects of other strands if they seem to be useful and to add strength in terms of the favoured approach." (Jackson, 1987a, p.461)

Flood (1989a,b) indicates that imperialists either add bits of other methodologies (by annexation) or adopt a methodology (by subsumption) as a sub-methodology in order to deal with outstanding anomalies and "special cases".

- Pluralism suggests that theoretical and practical developments will be mutually informing. It recognises that different approaches address different aspects of the management task. A meta-theory can be developed which can guide theoretical endeavour and can be of use to analysts confronted with different problem situations to help them decide which approach is most suitable (Jackson, 1987a). Pluralism does not fully accept paradigm incommensurability (only at the methodological level, according to Flood, 1989b). Thus, although it might be difficult to manifest in practice, a constructive dialogue between practitioners operating in different paradigms should be possible if it is recognised that the different approaches address different aspects of the management task (Jackson, 1987a).

CST advocates pluralism, as distinct from pragmatism, isolationism, and imperialism. CST's endeavour takes further heart from the fact that each of the newer tendencies (Soft Systems Thinking, Cybernetics) has strengths in the areas which are the key weaknesses of the traditional approach (Jackson, 1989). Jackson (1991a) indicates that

each form of systems thinking addresses different issues in organisational problem solving. He says:

"...hard systems methodologies (i.e. Systems Engineering, Systems Analysis, Operational Research) are appropriate to deal with the engineering type problems for which they are originally designed, and they are suitable for application to social systems in only a very restricted range of circumstances; however, soft systems methodologies (i.e. Social systems Design, Strategic Assumption Surfacing and Testing, Social Systems Sciences, Soft Systems Methodology) are adapted to many of the special features of social systems and express what any social systems approach must have as its aim - the desire to increase the area of social life where rational peoples' intentions become realised in history." (Jackson; 1991a, p.135)

There is, of course, a danger that pluralism can be misinterpreted as a sort of super tool kit which comprises several systems methodologies, from which systems methodology-users can pick up any tool by means of trial and error. However, pluralism is different from methodological pragmatism (the tool kit). Pluralism takes theoretical issues into account.

Here, the System of Systems Methodologies (SOSM, Jackson and Keys, 1984; Jackson 1987b, 1990) will be given as an example to discuss pluralism. SOSM was created in the early 1980s. Jackson and Keys (1984) firstly indicate that systems methodologies can be categorised according to two dimensions: organisational complexity and organisational participation.

The 'complexity' dimension refers to the perceived complexity of the organisational problem situation. Jackson and Keys draw on Ackoff's (1974b) terminology of 'machine age' and 'systems age' to refer to two types of system. Vemuri (1978) also says that complex systems are difficult to observe and predict; they pose constant evaluation and behavioural problems. According to Jackson and Keys (1984), simple systems are observable, have less interaction with the environment, are predictable and

less subject to behavioural (such as cultural, political, ethical etc.) influences. In contrast, complex systems are difficult to observe, open to their environment and subject to more behavioural influences.

The 'participation' dimension refers to the relationships that are perceived to exist between individuals or groups. Jackson and Keys (1984) say,

"The criterion to be used in classifying decision makers in particular problem contexts is whether they are a unitary or a pluralist set in respect of their objectives." (p.475)

Jackson (1987b, 1990) expands the SOSM to include 'coercive' problem contexts. Individuals can easily pursue their goals in a unitary situation; in a pluralist situation, common and agreed goals can be agreed only through mutual understanding among various points of view; however, in coercive situations, decision making is dominated by powerful groups or individuals that suppress others.

	UNITARY	PLURALIST	COERCIVE
SIMPLE	<u>S-U</u> - Operational Research - System Analysis - Systems Engineering - System Dynamics	<u>S-P</u> - Social Systems Design - Strategic Assumption Surfacing and Testing	<u>S-C</u> - Critical Systems Heuristics
	<u>C-U</u> - Viable System Diagosis - General System Theory - Socio-technical System Thinking - Contingency Theory	<u>C-P</u> - Interactive Planning - Soft Systems Methodology	<u>C-C</u> ?

Figure 2.1. A Grouping of Systems Methodologies Based upon the Assumptions They Make About Problem Contexts
 (source: Flood and Jackson, 1991a, p.42)

These two dimensions of classifications constitute the framework of System of Systems Methodologies (SOSM), which is a six-cell matrix (Figure 2.1). For each problem context, it is necessary to find suitable systems methodology(ies) to deal with it. According to Jackson and Keys (1984) and Jackson (1987b, 1990), hard systems methodologies (such as traditional Operational Research, Systems Analysis etc.) are aligned with simple-unitary problem contexts; systems cybernetic methodologies can be used to solve complex-unitary problems; Social Systems Design can solve simple-pluralist problems; for complex-pluralist problem contexts, Interactive Planning and Soft Systems Methodology can be applied; and emancipatory methodologies (Critical Systems Heuristics) can be used in simple-coercive problem situations. However, it is difficult to find suitable methodologies for complex-coercive problem contexts.

From Jackson and Keys's (1984) point of view, to choose a suitable methodology(ies) for an organisation, problem solvers firstly need to understand the problem situation. The concept of metaphor provides appropriate means to study and understand organisational situations. Morgan (1986) indicates that metaphors can be used to study and reflect organisational characteristics and highlight certain interpretations, tending to force others into a background role. He also argues that many of our taken for granted ideas about organisations are metaphorical. Flood and Jackson (1991a) identify five different metaphors (see Figure 2.2) which reflect many organisational problem situations. These are the machine, organism, neuro-cybernetic, coalition, culture and prison metaphors, and they can be mapped onto the SOSM (see Figure 2.2). Figure 2.2 shows that problem contexts are in fact overlapping and sometimes cannot be clearly defined. There is therefore significant room for interpretation in diagnosing organisational context.

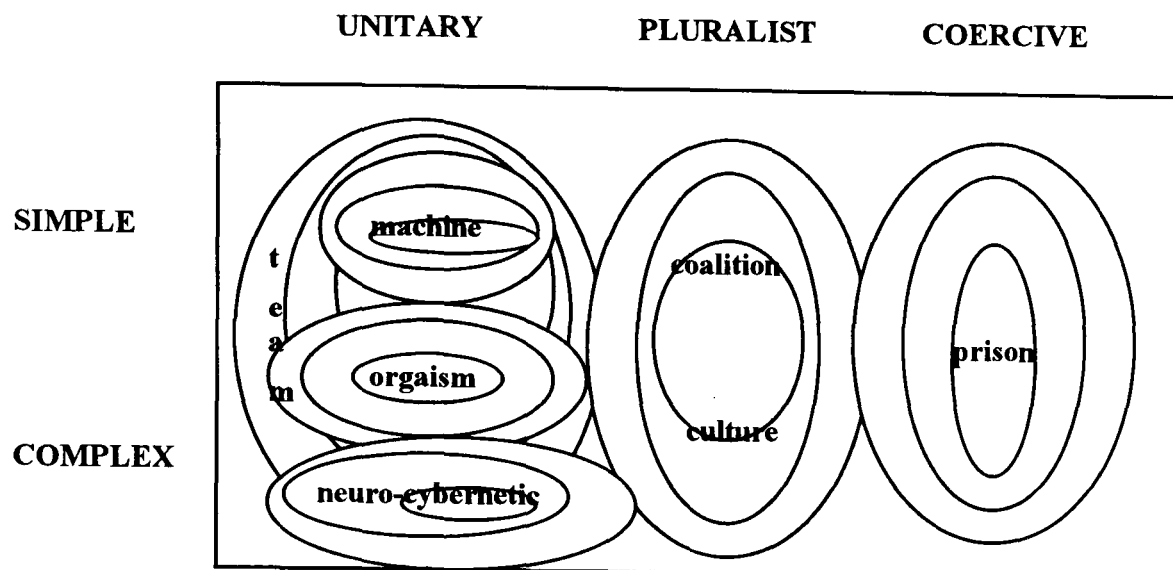


Figure 2.2. Constituting the System of Systems Methodologies through Dominant Metaphors
(source: Flood and Jackson, 1991a, p.42)

Midgley (1992c) argues that Jackson and Keys (1984) and Jackson (1987a) work towards the development of a pluralist meta-theory by classifying systems methodologies according to the assumptions they make about social reality.

"...working methods drawn from the various paradigms are appropriate for different perceived situations but, while this might mean that they have to be separately defined at the methodological level, at a 'higher' theoretical level they can be seen as complementary." (Midgley, 1992c, p.150)

Furthermore, Midgley (1995a) indicates that CST embodies its own unique assumptions, meaning that it is trying to establish the foundations for a new paradigm. In Jackson's work, these assumptions are embodied in his use of Habermas's (1972) theory of Knowledge Constitutive Interests (KCI).

Midgley (1992b) also uses Habermas's theory, but slightly differently. He focuses on Habermas's (1984a,b) view of good rational argumentation: "it is possible to make, and challenge, truth statements (about the objective, external world), rightness statements (about our normative, social world) and statements about subjective positions." (p.23).

Midgley then suggests that all existing systems methods prioritise one of these types of statement.

"'Hard' and cybernetic methods primarily pursue truth statements - they attempt to model reality. They might deal with issues of rightness and subjectivity along the way, but these are subordinate concerns. In contrast, 'soft' systems methods primarily pursue rightness statements. They attempt to manage debate so that a group of people can figure out the right way forward. While issues of truth and subjectivity will often be explored too, these are once again subordinate concerns. There are also a set of methods that are primarily oriented toward statements about subjective positions (e.g., personal construct theory and cognitive mapping, both of which seek to build a picture of a single individual's unique perspective.) Again, truth and rightness issues may have a bearing on the use of these methods, but they are inevitably treated as subordinate concerns." (Midgley, 1997b, p.13)

Another view of methodological pluralism is Gregory's (1992, 1996) 'discordant pluralism'. She (1996) uses the constellation metaphor to describe the understanding of methodologies.

"...if we were to ask an individual to describe the night sky on two separate occasions, perhaps a few months apart, from precisely the same location, the descriptions could potentially be enormously different, with weather, comet cycles, satellite paths, and so on, all playing a part in ensuring that the configuration of the constellation under observation will change." (p.618)

She therefore says, "discordant pluralism is a position which represents a 'shifting nodal point' in which different, competing and conflicting perspectives may interact in a tension which lasts only a critical moment." (p.441). Thus, methodologies can be viewed differently by different practitioners and researchers, based on their knowledge and social circumstances. Discordant pluralism involves appreciating and recognising the differences and similarities between various methodologies, rather than reducing them to only one perspective. Thus, Gregory argues that theories and methodologies

should be seen as "supplementing one another, rather than competing with one another" (1992, p.441). Gregory (1996) expands on this in the following manner:

"This view of supplementary theoretical perspectives allows for incompatibility at a theoretical level, thereby avoiding the danger of sliding into imperialism by subsumption. Since it focuses on the differences, the aversions, as much as the similarities or attractions between oppositional stances, it is able to set up a tension which repels other constellations." (p.619)

Gregory (1996) also argues that pluralism seeks to "facilitate a transformation process through understanding of self and others." (p.622). This is to say, discordant pluralism enhances the abilities of practitioners to understand different methodologies by encouraging self-reflection and social ideology-critique. Methodologies can be interpreted critically and used in a pluralist fashion according to the practitioners' knowledge and local circumstances at a given point in time.

In a similar manner to Gregory (1992, 1996), Flood and Romm (1995b) argue that "complementarism is an attempt to preserve diversity in theory and methodology. Preservation maintains diversity enhancing chances of effectively dealing with great complexity in organisational issues." (p.471). However, they also suggest that practical situations may be encountered where political dynamics prevent the implementation of a chosen methodology. Flood and Romm (1995a,b; 1996b) therefore argue for the "oblique" use of methods: "The idea of an oblique use of a method is to achieve some purpose other than its immediate and given one." (Flood and Romm, 1995a, p.390). They acknowledge that "the idea of using a method obliquely is hardly different in practice with what practitioners do anyway - namely, combining methods to tackle the issues that they face." (p.399). However, they also argue that so-called combinations have to be carefully thought through in order to avoid particular principles and purposes becoming dominant by default. Uncritical practitioners may use the logic of a particular method without considering other possible ways of addressing the situation.

This means that "a serious confrontation with competing possibilities for addressing issues faced may be occluded." (p.399)

We see that there are a variety of views of methodological pluralism, but it is still possible to summarise some core assumptions that characterise them all. CST considers that problems or situations need to be considered from wider points of view than other approaches have done, and it is not the case that there is one best or right approach which should always predominate. CST holds that, in principle, no methodology should be ignored, but should be respected and adopted where appropriate. It seems reasonable that different methodologies should be used, depending on the problem situation being faced. However, while pluralist frameworks are part of the answer, they must (in the view of critical systems thinkers) be operated critically. Hence their focus on "critical awareness".

2.7.2. Critical awareness.

Critical awareness, in Jackson's (1991a) terms, means examining systems design proposals in terms of their "underpinning values and assumptions". It also means "understanding the strengths and weaknesses of methodologies" (Jackson, 1991a, p.185). The aim is to elucidate the relations between social circumstances and the theoretical assumptions underlying various methodologies. Here, critical awareness is concerned with the application of systems methodologies and the impact of intervention on the organisation. Critical awareness is to "examine and re-examine taken-for-granted assumptions, along with the conditions which give rise to them" (Midgley, 1995a, p.2). This is to say, social circumstances (i.e. cultural influence, political power, social ideology, etc.) will affect the success with which management methodologies can be applied, while conversely, systems intervention will also affect social circumstances. Therefore, critical awareness needs to consider two dimensions:

the consequences of methodology intervention and the suitability of methodologies in given social contexts.

- **The consequences of intervention.**

It is necessary to take the 'whole' social situation into account when systems methodology-users are dealing with social problems. The 'whole' situation, in this context, means the views of people who are involved, as well as those not involved but affected (Churchman, 1979b; Ulrich, 1983). Churchman (1979b) argues that it is important for systems thinkers to consider the widest possible set of affected people, instead of only direct participants. Thus, he raises the issue of where the 'system boundary' should be placed. Ulrich (1983) indicates that without considering boundaries critically (the critical idea), social design/planning can become trapped by a single point of view; yet critical thinking also needs to be bounded (the systems idea) in order to be practical. Ulrich (1983) indicates that the systems idea, as we understand it, does not presuppose that we can know 'the whole system', but only that we can undertake a critical effort to reflect on the inevitable lack of comprehensiveness in our understanding of, and design for, (social) systems.

Midgley (1995a) also discusses the concept of critical awareness. Inevitably, any change will affect different interest groups in different ways. Therefore, we have to understand the scope of the improvement that is proposed, and who should participate in its generation:

"Critical awareness is immanently practical in the sense that it is the only means we have to minimise the domination of interventions by understandings of improvement that are later found to have terrible, unanticipated side-effects, and therefore cease to be viewed as 'improvements' at all." (Midgley, 1995a, p.12)

- **Critical awareness of methodologies.**

As discussed earlier, many authors have argued that systems methodologies should be used in the problem situations for which they are most suitable (e.g., Jackson and Keys, 1984; Jackson, 1987b, 1990). This is partly because of their theoretical underpinnings, which predispose them to certain uses, and partly because of the social and cultural influences which create the contexts in which they are used. Indeed, CST recognises that social pressures will affect whether a methodology can be implemented properly, and that certain methodologies may be unsuitable when dealing with organisations' problems in certain cultures or ideological circumstances (Flood and Jackson, 1991a; Oliga, 1988, 1990, 1996; Brocklesby, 1995). Bearing this in mind, the use of existing methodologies should be considered in relation to the culture surrounding the organisation. Once again the possibility of the oblique use of methods becomes relevant here (Flood and Romm, 1995a).

2.7.3. Emancipation.

Critical systems thinkers argue that soft systems thinkers do not effectively deal with power relations in organisations (Jackson, 1985a, 1987b). In contrast, Jackson (1991a) suggests that:

"...critical systems thinking is dedicated to human emancipation and seeks to achieve for all individuals the maximum, development of their potential. This is to be achieved by raising the quality of work and life in the organisations and societies in which they participate." (p.185)

CST tries to enhance existing systems thinking by emphasising the importance of the human emancipatory interest. Flood and Jackson (1991b) indicate:

"CST aims at emancipation to develop systems thinking and practice beyond its present conservative limitations and, in particular, to formulate new methodologies to tackle problem situations where the operation of power prevents the proper use of the newer soft systems approaches." (p. 2)

Habermas (1972) emphasises that fulfilment of the emancipatory interest will prevent the technical and practical interests being abused by powerful groups. He also indicates that the emancipatory interest can be achieved by means of critical sciences, which aim to release human beings from the constraints imposed by our society.

According to Jackson (1987b) and Flood and Jackson (1991a), Ulrich's Critical Systems Heuristics (Ulrich, 1983) is an example of a critical methodology dealing with the emancipatory interest. Ulrich formulated two sets of 12 questions that ask 'What is?' and 'What ought to be?'. These questions should enable any existing social system to be examined with a view to discovering the norms, values etc. that went into its design. They should also enable any potential systems design to be interrogated as to its presuppositions. Jackson (1987b) classifies Critical Systems Heuristics as an emancipatory systems methodology because, in his view, it not only sets out an appropriate philosophy for an emancipatory systems approach, but also offers a method which can be used by planners and concerned citizens alike to reveal the "normative content" of actual and proposed systems designs.

The emancipatory commitment involves facilitating people's participation in social design, and this participation should ideally be based on genuine dialogue. However, when this is not forthcoming, the researcher may support the powerless in embarrassing planners through public argument (Ulrich, 1983), facilitate consciousness raising (Midgley, 1997a), or even support direct political action to stimulate change (Midgley, 1992b, 1997a).

Midgley (1995a) claims that the word 'improvement' actually represents human beings' needs more accurately than 'emancipation'. In his view, the term 'human emancipation' encourages people to review social issues as separate from environmental concerns. "Improvement" is a more general term, which Midgley discusses in the following manner:

"The notion of improvement is important for critical systems thinkers because actors are restricted in the number of interventions they can undertake, and must therefore make acts of judgement about what they should do. The extent to which various interventions look like they may or may not bring about improvement, or may bring about improvements that have greater or lesser priority, is a useful criterion for making these judgements." (Midgley, 1995a, p.12)

We can in fact say that emancipation is *about* improvement - not only of material well-being, but also of knowledge and understanding. This latter form of improvement necessitates that individuals reflect on their assumptions (Gregory, 1992). Individuals need the ability to examine and judge the surrounding ideologies that provide the context for their personal beliefs. In this sense, as Gregory (1992) argues, emancipation is an emergent property of the constant pursuit of empirical-analytic inquiry (supporting the technical interest), historical-hermeneutic understanding (the practical interest), critical self-reflection and ideology-critique (the emancipatory interest).

2.8. Conclusion.

This chapter has reviewed the development of management systems methodologies up to, and including, the emergence of CST. CST argues that it is important to consider the strengths and weaknesses of the great variety of methodologies, promote critical awareness about the contexts of interventions (and possible candidate methodologies), and pursue emancipation.

For CST's application, Flood and Jackson (1991 a,c) and Flood (1995a) offer a meta-methodology which embodies CST's three themes to aid management practitioners in addressing complex organisational problems. This meta-methodology, which they call Total Systems Intervention, will be discussed in the next chapter.

Chapter Three: The Application of Critical Systems Thinking through Total Systems Intervention

Chapter Three: The Application of Critical Systems Thinking through Total Systems Intervention

3.1. Introduction.

This chapter aims to explain and discuss one meta-methodology that has emerged out of CST, Total Systems Intervention (TSI). TSI was initially created by Flood and Jackson in 1991. Here, this first version will be called TSI(1). TSI(1) is claimed to be a meta-methodology for creative thinking about problem situations and systematic choice among systems methodologies to deal with problem situations (Flood and Jackson, 1991a). However, a recent development of TSI(1) extends its original utilisation (which focused solely on problem solving) to other applications: the critical review of other methodologies and critical reflections upon completed interventions. This new version of TSI (Flood, 1995a) will be named TSI(2), and it involves three "modes": the Critical Review Mode (reviewing methodologies), the Problem Solving Mode (during intervention) and the Critical Reflection Mode (post-intervention).

Just as TSI(1) was accused of lacking sufficient awareness of the importance of the problem solver's knowledge and his or her relation with the social situation (Mingers, 1992), the criticism may still be made of TSI(2) that it does not take sufficient account of the assumptions made by problem solvers (Flood, 1995b). It is this observation that led to my intention to expand the concept of TSI(2), in particular the Critical Review Mode. My aim was to develop the Critical Review Mode, focusing in particular on the concepts of self-reflection and ideology-critique (as used by Gregory, 1992). For reasons to be explained in Chapter 6, I eventually departed from the framework of TSI. However, TSI remains an important reference point for this thesis (in Chapter 9, I

compare my own methodology with it), and therefore it needs to be explained in some detail.

In order to illustrate comprehensively the way TSI is built upon CST, firstly introductions to both TSI(1) and TSI(2) will be presented. Secondly, I will show the philosophy and principles underpinning each version. Several criticisms of TSI(1) will be detailed and comparisons between TSI(1) and TSI(2) will be made to show what has been changed and improved in TSI(2).

3.2. The Nature of TSI.

Modern organisations are said to be facing more complex and interrelated problems than ever before (e.g. Ackoff, 1981). It is necessary to realise that no single methodology can adequately cope with the multiple problem situations we now increasingly face. As Flood and Jackson (1991a) argue:

"We are faced with 'messes', sets of interacting problems, which range from the technical and the organisational to the social and political, and embrace concerns about the environment, the framework of society, the role of corporations and the motivation of individuals." (p.xi)

CST has argued that we need a comprehensive approach to dealing with problem situations (as far as this can be attained) and complementary use of various systems methodologies. The question therefore arises, how can systems problem solvers achieve this aim? TSI(1) and TSI(2) both provide some answers. They do not invent their own problem solving methodologies, but apply methodological pluralism to engage various systems methodologies to deal with different problems according to their strengths and weaknesses.

"The variety of existing methodologies can be seen as a strength rather than as a weakness of the systems movement; each methodology is put to work only on the kinds of issues or 'problems' for which it is most suitable." (Flood and Jackson, 1991a, p.48)

As described in Chapter 2, the System of Systems Methodologies (SOSM) (Jackson and Keys, 1984; Jackson, 1987b; Jackson, 1990) was the first attempt to show how methodological pluralism might be practised. Problem solvers have to learn the strengths and weaknesses (suitability for different social circumstances) of different methodologies. The SOSM can be seen as providing guidelines for problem solvers (Jackson, 1993). Although offering more than the SOSM, it has been argued that TSI(1) is still primarily based on this methodological guidance to facilitate systems problem solvers' choice of suitable methodology(ies) to deal with complex organisational problems (Elstob, 1992).

In contrast, while TSI(2) also claims methodological pluralism, it abandons the concerted classification of the SOSM. Instead, TSI(2) tries to understand organisations by means of four main dimensions: organisational process, organisational design, organisational culture and organisational politics. These four dimensions of organisation are argued to be more familiar to non-academic managers than the categories of the SOSM (Flood, 1995b). In accordance with the four dimensions, TSI(2) seeks four different types of method to tackle various problems taking place within organisations. Methodology choice and implementation will depend on the problem solvers' and participants' views of the organisational problem context. Moreover, Flood and Romm (1995a) argue that a method need not only be used for its "given and immediate purpose", but could be used in an oblique fashion - for other purposes which the problem solver wishes to pursue. This signals a more flexible way to use methodologies, since social and environmental constraints might not allow some methodologies to be practised, yet it is possible to imbue other more "acceptable" methodologies with their principles.

Clearly, TSI(1) and TSI(2) both practice methodological pluralism, yet TSI(1)'s version is derived from Habermas's (1972) "theory of knowledge-constitutive interests" (Flood and Jackson, 1991a). As indicated in the last chapter, hard systems methodologies aim to serve the technical interest, soft methodologies serve the practical interest, and emancipatory systems methodologies address the emancipatory interest. In contrast, Midgley (1995c) interprets the basis of TSI(2) as Flood's (1990b) "liberate and critique", which claims that:

"Some forms of knowledge dominate others. Hence, there is a need to liberate suppressed knowledges (through creative exploration) before critiquing those knowledges in order to move towards the choice and implementation of appropriate methods." (Midgley, 1995c, p.30)

TSI(2) is concerned to use methods creatively and flexibly. It is differentiated in this respect from TSI(1), which puts various methodologies into a grid. Moreover, TSI(2) allows for methods to be used obliquely.

In the next few sections, each version of TSI will be discussed in terms of their philosophies and processes, and the critiques that have been undertaken of them.

3.3. Total Systems Intervention (version one).

3.3.1. The Philosophy of TSI(1).

TSI(1) is based on CST's three commitments: complementarism, critical awareness and human emancipation (Flood and Jackson, 1991a). As mentioned earlier, TSI(1) is an application of methodological pluralism; therefore, it needs to show that various methodologies are necessary to support different needs.

TSI(1) uses metaphors to study organisational problem contexts and find suitable systems methodology(ies) to deal with them.

"Total Systems Intervention combines creative thinking about the nature of problem situations, using the systems metaphors, with informed choice of systems methodology, based upon knowledge of the strengths and weaknesses of different methodologies gained from the "system of systems methodologies." (Flood and Jackson, 1991a, p.43)

When the strengths and weaknesses of a methodology are understood, it is possible to decide if it can be appropriately used in a particular social circumstance. Because of social circumstances, a methodology must be studied with regard to its ideological assumptions (Olga, 1988). TSI(1) talks about the relation between organisational situation and choice of an appropriate methodology in terms of ideology. For example, Soft Systems Methodology is said to be unsuitable in a Stalinist social system (Flood and Jackson, 1991a). Here, we see CST's emphasis on critical awareness flowing into TSI(1).

Moreover, TSI(1) in particular emphasises human emancipation. Flood and Jackson (1991a) indicate that TSI(1) "seeks to achieve for all individuals, working through organisations and in society, the maximum development of their potential." (p49). This claim encourages systems problem solvers to realise that the exercise of power can lead to pseudo-dialogue and prevent genuine participation, and that this needs to be dealt with during intervention. In this respect, it is very different from other systems methodologies such as Checkland's (1981) Soft Systems Methodology which presumes meaningful communication will automatically happen, and thereby ignores power issues (Jackson, 1991a).

3.3.2. Principles of TSI(1).

There are seven principles embedded in the three phases of TSI(1) (Flood and Jackson, 1991a, p.50). These are that:

- organisations are too complicated to understand using one management 'model' and their problems too complex to tackle with the 'quick fix';
- organisations, their strategies and the difficulties they face should be investigated using a range of systems metaphors;
- systems metaphors, which seem appropriate for highlighting organisational strategies and problems, can be linked to appropriate systems methodologies to guide intervention;
- different systems metaphors and methodologies can be used in a complementary way to address different aspects of organisations and the difficulties they confront;
- it is possible to appreciate the strengths and weaknesses of different systems methodologies and relate each to organisational and business concerns;
- TSI(1) sets out a systemic cycle of enquiry with iteration back and forth between the three phases;
- facilitators, clients and others are engaged at all stages of the TSI(1) process.

The principles of TSI(1) provide useful guidelines to understand an organisation's situation and ways to tackle its problems. For example, an organisation can be seen from different points of view, which gives us increased understanding of problem situations. The different metaphors link to relevant methodologies that are needed to tackle problems. Since the problems of organisations are occurring constantly, they cannot be solved at the same time. Thus, it is necessary to practise TSI(1) over time. In particular, TSI(1) is concerned with the involvement of all relevant parties in problem solving to enhance emancipatory achievement.

3.3.3. The Three Phases of TSI(1).

TSI(1) comprises three phases: creativity, choice and implementation (see Figure 3.1).

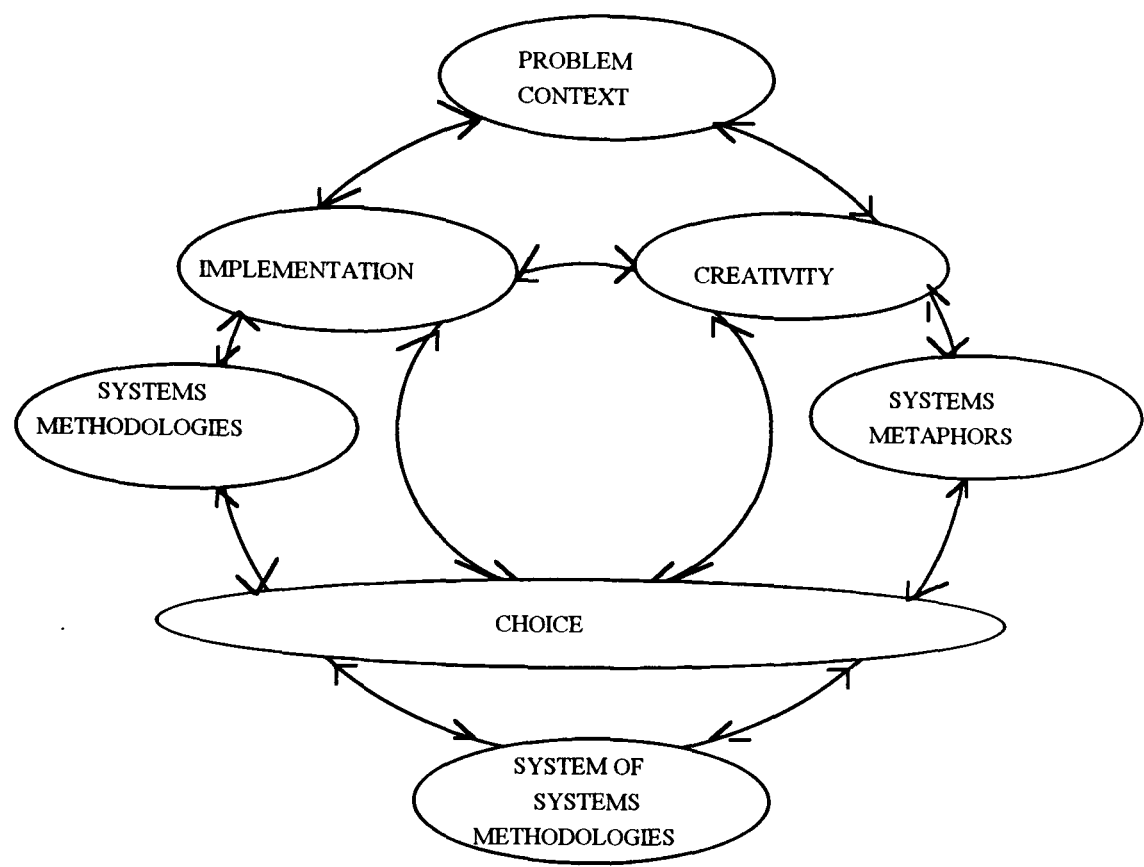


Figure 3.1 The Process of Total Systems Intervention
(source: Flood and Jackson, 1991a, p.55)

They are operated in a circular rather than a linear fashion. This is because problem solving is a never-ending process. The circular movement enables problem solvers to continue practising and start at whatever stage is appropriate to their needs. Each phase will receive a message from previous phases and generates outcomes for the next phase. The creativity phase involves the creative understanding of organisations by means of a set of systems metaphors. After the main issue (and sub-issues) have been surfaced, the information will be passed to the next phase, the choice phase (although, if the surfacing is not sufficient, the creativity phase will be practised again). Here, the choice phase entails selection of a dominant methodology (and possibly a set

of dependent methodologies) to tackle current problems. The purpose of this phase is to select the most appropriate methodology(ies). This can be done by means of studying the matrix of systems methodologies (SOSM) which provides classifications of organisational problem contexts. The final phase in TSI(1) is the comprehensive application of various systems methodologies, if necessary. These will generate change proposals which can be implemented.

Flood and Jackson (1991a) stress that TSI(1) is a systemic and iterative methodology that asks for continual reference to be made, back and forth, during each phase. Moreover, since organisational problem situations are constantly changing, and new issues and problems might be generated after TSI(1)'s first implementation, subsequent rounds of TSI(1) might need to be practised.

3.4. Criticisms of TSI(1).

After being practised for several years, TSI(1) has been accused of lacking sufficient practical methods to address real problem situations (Flood, 1989a; Payne, 1992; Tsoukas, 1993a,b; Dutt, 1994). Payne (1992) questions, "...what strategies or tactics should the consultant personally use when confronting resistance from top managers or other powerful organisational representatives opposed to the initial inclusion of CST's possibilities or to the possible selection of these methods?" (p.246).

Moreover, TSI(1) is accused of the inappropriate classification of organisational problem situations, and doubts have been cast on the argument of methodological complementarism and choice of methodologies based on metaphor study (Mingers, 1992; Tsoukas, 1993a). Mingers (1992) questions the use of only two dimensions for the classification of various methodologies, and suggests that there is a need to consider other issues such as the knowledge brought in by problem solvers, the task,

and the nature of the methodology. Mingers also suggests that if there is agreement on definitions of problem context, it should not matter which methodology is chosen. Dutt (1994) argues that organisational problem contexts are in fact dynamic and complex, and that they shift among unitary, pluralist and coercive. If the problem situation is shifting, how can a consultant decide which single methodology should be used in such a situation?

In my view, one of the most important criticisms of TSI(1) is that it does not take sufficient account of the inevitable biases built into the knowledge base of the problem solver. Although Flood and Jackson (1991a) argue that problem solvers need to be aware of the different paradigms in social science, and be prepared to view the organisational situation from many different perspectives, nevertheless the question asked by Brocklesby (1994, 1995) is, how can problem solvers view the same situation from different paradigms without involving personal preferences and cultural influences? As will be apparent later, this focus on the role of the problem solver is particularly relevant for the subject matter of this thesis.

Brocklesby (1994) questions the sufficiency of TSI(1)'s guidance for choosing methodologies that are affected by local contexts (culture) and systems practitioners' personal interests. For a systems practitioner, socially constructed taken-for-granted assumptions about problem situations, and the practitioner's personal characteristics and specific competences are all contextual influences on systems research (Brocklesby, 1994). Brocklesby (1995) therefore argues that cultural influence can be an important issue. He also indicates that

“the rationale for portraying systems practice as the enactment of culture is based upon the belief that the way systems research is carried out depends as much upon the 'deeper meanings' that the researcher brings to the problem arena as it does the tools and techniques that are usually the most visible manifestation of 'what is going on'." (p.1286)

Brocklesby (1995) explains that the individual's cultural bearing intrudes upon his or her research in terms of methodology choice and the manner in which the methodology is used. This will also be related to where an individual looks for problems, and how these are seen. He also indicates that

"the choice we have available to us now depends upon what has happened in the past. Instead of approaching important decisions with a clean slate, we are all contextually and historically situated actors and our autonomy and freedom is culturally bounded. That we rarely acknowledge this merely reflects the unwitting manner in which cultural forces permeate and structure our daily lives." (p.1287)

To avoid such 'traps', Brocklesby (1994) argues that systems researchers need to have "the onus to reflect critically upon some of their consciously held beliefs about their research and consulting activities." (p.85).

One way to open these preferences and influences to critique is to sweep in a variety of perspectives that are based on different interests in an organisation (Schechter, 1993). Another is to enhance the processes of methodology review and critical reflection (Flood, 1995 a, b).

Flood (1995b) has also conducted an in-depth critical review of TSI(1) and suggests that there are significant problems with all three phases:

1. Creativity phase:

- having only five metaphors is constraining and limiting;
- not enough explanation has been given as to why the five metaphors have been chosen;
- no method has been given to help people to use the metaphors.

2. Choice phase:

- the framework (SOSM) is not suitable for practical work;
- methods are difficult to categorise;
- systems methods included in the SOSM are too limited in their scope.

3. The criticism in the implementation phase is that the range of methods that we employ is far more limited than we realise. (p.188)

3.5. Total Systems Intervention (version two).

TSI(2) does not only focus on problem solving, but also emphasises the critical review of other methodologies and critical reflection. Each "mode" (Problem Solving, Critical Review and Critical Reflection) can be used separately or sequentially. Unlike TSI(1), which relies on the SOSM, TSI(2) attempts to understand various systems methodologies by means of critical review, looking in particular at how they deal with Flood's (1995a) four key dimensions of organisation (process, design, culture and politics). Moreover, TSI(2) gives more detailed attention to intervention, and considers how intervention will affect, and be influenced by, organisational circumstances.

TSI(2) seeks to be more practical for managers with a non-academic background. It employs every-day language to interpret critical systems concepts. In fact, TSI(2) aims to provide managers with an academic-based hand-book, in non-academic language, which not only helps them to tackle their current problems effectively, but also encourages them to think about more than just problem solving.

3.5.1. Philosophy of TSI(2).

Flood (1995a) does not talk explicitly about philosophy. However, it could be argued that the main philosophical idea of TSI(2) is expressed in the following quotation:

"We think about the places in which we work as whole human organisations. It is only when a good understanding of the whole organisation is grasped, by taking into account the viewpoints of all concerned, that effective management can be achieved." (p.19)

In particular, Flood explores the concept of organisation and defines organisation(s) as human relationships, rather than as separate organic social entities. Flood (1995a) argues that an organisation should be studied in terms of four key dimensions; namely,

- organisational process - flows, and controls over flows,
- organisational design - functions, their organisation, co-ordination and control,
- organisational culture - mediation of behaviour in terms of people's relationship to social rules and practices.
- organisational politics - power and potency to influence the flow of events. (p.3)

Flood (1995a) suggests that managers should not take for granted that they know with absolute certainty what the organisation's problems are. They therefore should start by treating the situation as a "mess" that needs to be defined (see also Ackoff, 1981). Therefore, it is important that creative thinking is used to enable managers to understand their organisations from different angles. Flood indicates that the trick of creative thinking is to learn to use your mind to think in different ways and then employ unexpected insights that you value.

Unlike TSI(1), TSI(2) does not clearly specify its relationship with CST. Nevertheless, it is clear that TSI(2) is also based on CST, and embodies the three themes in its three modes and four principles. TSI(2) is pluralist. However, it argues that organisational

problems cannot be simply and precisely defined as simple-unitary, complex-coercive, etc.. Problems are multifaceted and shifting. In TSI(2), four key organisational dimensions are considered simultaneously, each of which suggests the use of different methodologies. Moreover, the Critical Review Mode is employed to create a system of methods which is based on creatively thinking about candidate methodologies in terms of "what" they are, and "how" and "why" they should be used. This enriches the problem solvers' knowledge and understanding of different methodologies. TSI(2) also demonstrates critical awareness: in the Problem Solving Mode, the problem solvers' system of methods needs to be reviewed according to local circumstances. Organisational culture, politics and ethics should be taken into account before choosing a suitable methodology(ies). In addition, in the Critical Reflection Mode, the consequence of methodology intervention will be reviewed and evaluated to see if the chosen methodology(ies) has been used to serve only particular interests. Finally, TSI(2) aims to achieve human emancipation, rephrased for a management audience as "human freedom". Flood (1995a) puts it like this:

"The benefits arise from research into whose interests are being served, linking organisational power structures to biases in society (e.g. sex, race or class), or by identifying experts and their position in the power structure, or identifying other forms of the operation of power... Reflection of these sorts all adds up to disimprisoning." (p.54)

3.5.2. Principles of TSI(2).

TSI(2) advocates four principles: being systemic, achieving meaningful participation, being reflective, and the goal of enhancing human freedom. These four principles can be seen as interrelated and should be pursued all the time. Systemic understanding means, as far as possible, grasping a whole picture of organisations. An organisation should be viewed from the four perspectives; namely, organisational design, organisational process, organisational culture and organisational politics. To do this

adequately, TSI(2) needs to seek meaningful participation, to sweep in various perspectives and points of view. Moreover, according to Flood (1995a), problem solvers, managers and researchers should consider it a professional obligation to pursue human freedom in all its various guises, and to reflect on the results of interventions to ensure that systems practice to enhance freedom is subject to constant improvement.

3.5.3. Process of TSI(2).

TSI(2) follows the framework of TSI(1) in that it uses three phases in practice: creativity, choice and implementation (see Figure 3.2). The creativity phase is to surface interacting organisational issues; the choice phase is to choose suitable methods to manage the issues; and in the implementation phase, a proposal(s) will be made to deal with organisational issues. One proceeds clockwise in the Critical Review Mode and the Problem Solving Mode (creativity to choice to implementation). In the Critical Reflection Mode, however, one proceeds anti-clockwise. Therefore, "each phase passes its outcome to the next phase in a clockwise direction and receives critical reflections about the outcome from the next phase in an anticlockwise direction" (Flood, 1995a, p179).

TSI(2) also introduces a recursive element to the process. Within each phase, all three phases are represented at a lower level of recursion. For example, in practicing creativity, the problem solver must think creatively about the creative task; choose appropriate creativity - enhancing methods; and implement them. See Flood (1995a) for more details.

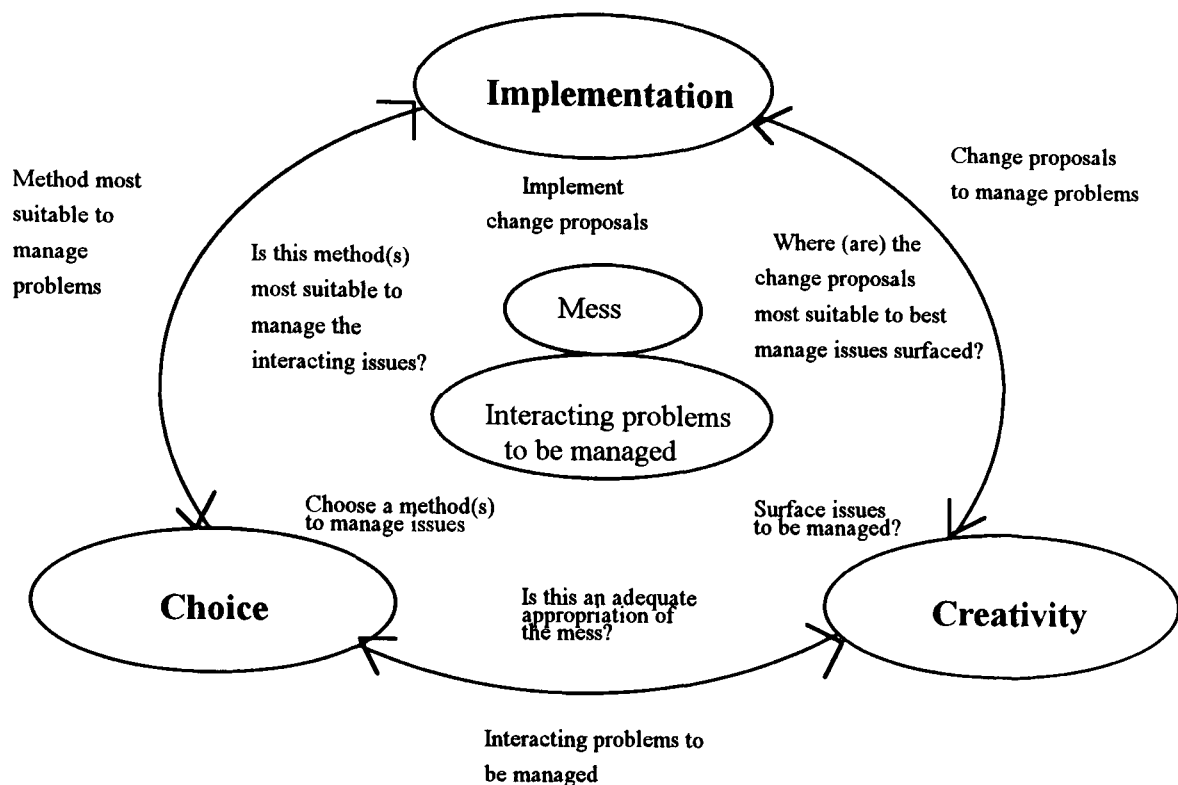


Figure 3.2. Three Problem Solving Phases in TSI(2)
(source: Flood, 1995a, p.10)

3.5.4. The Three Modes of TSI(2).

As mentioned earlier, Flood claims that TSI(2) can be used in different modes: the Critical Review Mode, the Problem Solving Mode and the Critical Reflection Mode (see Figure 3.3).

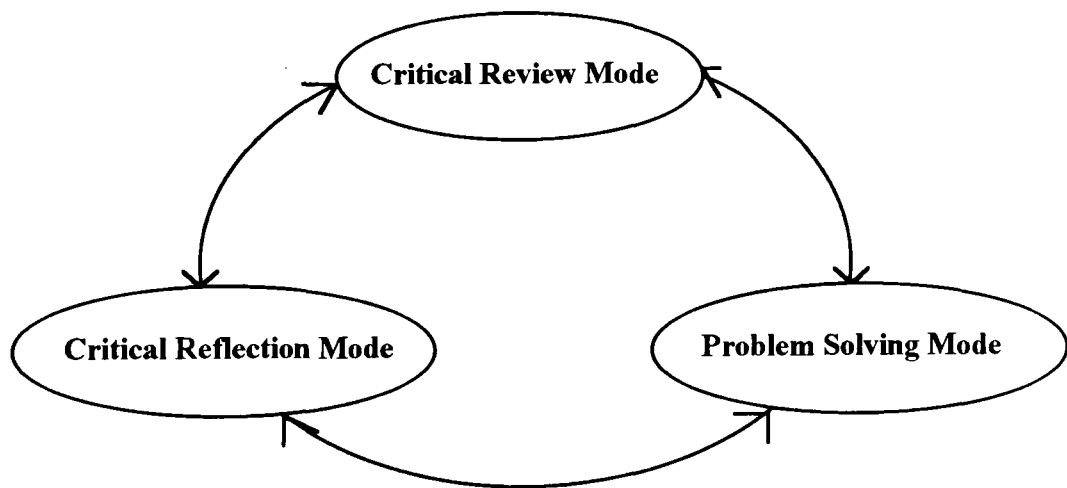


Figure 3.3. Three Modes in TSI(2)
(source from: Flood, 1995a)

Each mode can be operated independently or as part of a sequence. The three modes will be described briefly as below (more details are provided in Chapter 4).

- **The Critical Review Mode.**

In its Critical Review Mode, TSI(2) allows practitioners to examine and re-examine methodologies bidding for incorporation in the Problem Solving Mode. It is therefore necessary to reveal the strengths and weaknesses of each methodology and to understand how organisational circumstances affect the methodologies chosen. Generally, traditional management approaches (including soft systems approaches) fail to consider why a methodology is chosen: systems practitioners simply take and use them (Jackson, 1987a). In contrast, TSI(2) is "alive": it assesses candidate methodologies and tells systems practitioners why they might want to choose and use them. As Flood (1995a) puts it,

"The Critical Review Mode is needed so that a system of methods is prepared, capable of tackling the complex and diverse problems that we face today. It is not possible to problem solve in a satisfactory way with TSI unless an adequate base of methods has been reviewed and incorporated in the system of methods." (p.4)

- **The Problem Solving Mode.**

Each phase of the Problem Solving Mode also involves three sub-phases (see Figure 3.4).

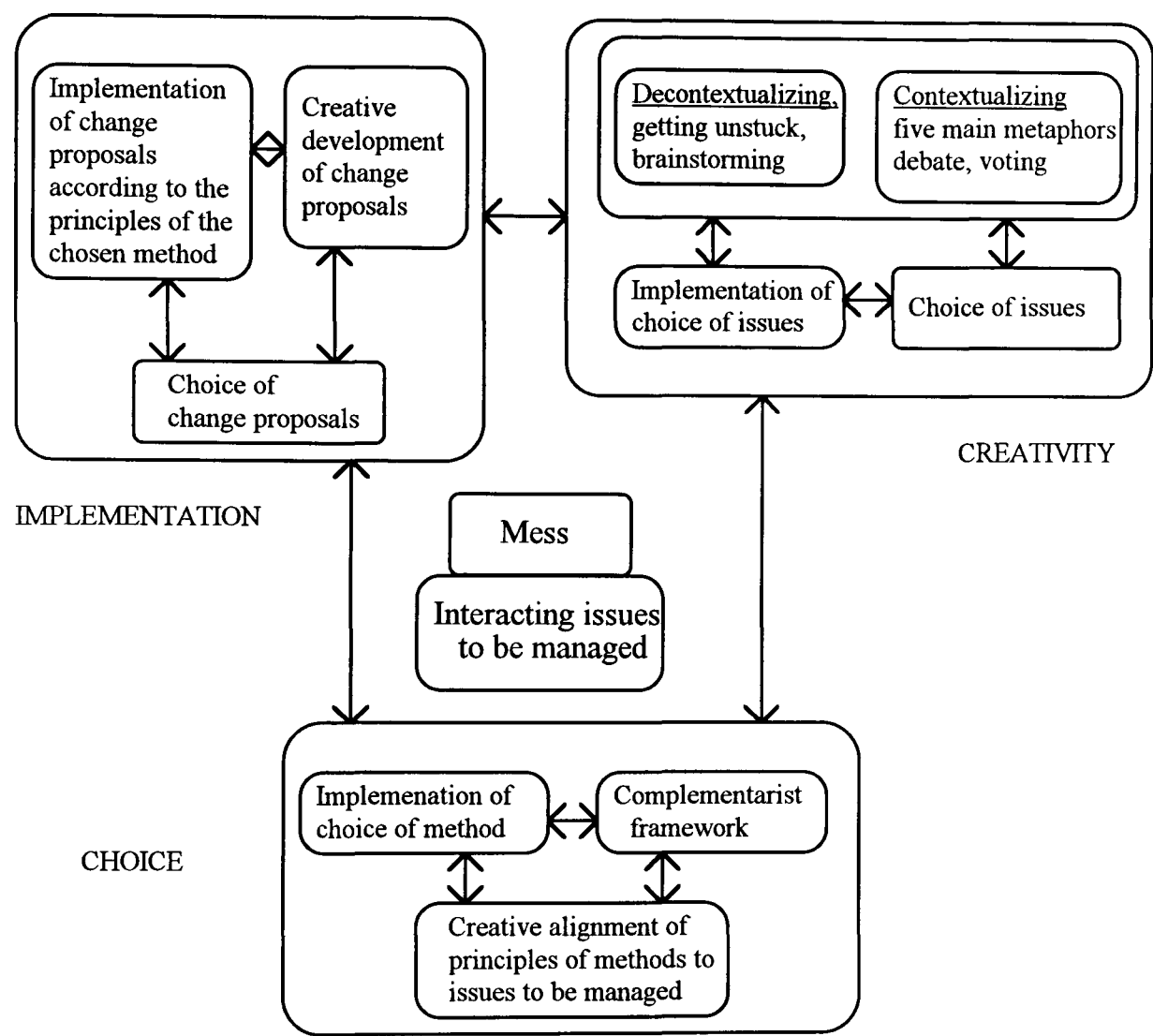


Figure 3.4. Subphases of the Three Phases in the Problem Solving Mode (source: Flood, 1995b, p.180)

In the Creativity phase, TSI(2) no longer relies solely on systems metaphors to clarify the organisation's mess. Two types of surfacing concept are introduced: decontextualisation and contextualisation. Decontextualisation provides the creative input necessary to surface a wide range of issues to be managed (methods associated with this include brainstorming, Nominal Group Technique, lateral thinking, etc.).

Contextualisation helps to make choices about which issues should be managed. Finally, a synthesis is arrived at to concretise the issues which need to be managed.

In the Choice phase, a complementarist framework (Flood, 1993b, 1995b) is prepared for problem solvers to increase their knowledge to solve interrelated organisational problems. This is presented in Table 3.1.

Designing	Debating	Disemprisoning
Machine		
Organic	Socio-cultural	Socio-political
Neuro-cybernetic		

Table 3.1. The Main Structure of the Complementarist Framework for the Choice Phase, and the Five Metaphors from the Creativity Phase (source: Flood, 1995b, p.183)

As Table 3.1 shows, various metaphors can be aligned with three categories of action: designing, debating and disemprisoning. As in TSI(1), metaphors provide the link between creativity and choice. However, instead of simply categorising methods under the three headings, it is the *principles* underlying various methods that are categorised. Flood argues that "principles propose kinds of action that should be taken when a particular method is chosen." (p.183) Table 3.2 shows that the three different categories of action are underpinned by different principles which enable managers or problem solvers to deal with various organisational issues. Choice of actual method(s) is then made by identifying the principles for intervention, listed under the categories of

designing, debating and disimprisoning. As long as the chosen method(s) embrace all the relevant principles, they should be adequate to the task of intervention.

	Type of method		
	Designing	Debating	Disemprisoning
Common principles	Communication Control Efficiency Effectiveness Emphasis on location and climation of cause of error	Participation Learning Understanding	Identifying whose interest is served Linking organisational power structures to biases in society (e.g. sex, race, class) Identifying how biases are mobilised in the organisation Identifying experts and their position in the power structure
Distinguishing principles	Emphasis on design control Emphasis on process control Environmental analysis Structure is prime Emergence Hierarchy	Diversifying Attenuating Consensual debate Adversarial debate Group formation crucial	Identifying sources of motivation Identifying sources of control Identifying sources of expertise Identifyiing sources of legitimation
Unique principle	Recursion Variety filtering		

Table 3.2 Principles for Intervention Linked to Three Types of Method
(source: Flood, 1995b, p.185)

In summary, there are two stages of choice:

"Choice of type of method(s) is made by determining the main purpose for intervention: designing, debating or disemprisoning. However, choice of actual method(s) is then made by identifying the principles for intervention, listed under the type of method chosen, most likely to tackle the issues carried forward from the creativity phase. Those are then aligned to principles of methods." (Flood, 1995b, p.183)

Finally, the Implementation phase is about making a change proposal(s) which emerge(s) from the use of the chosen methods' principles.

- **The Critical Reflection Mode.**

TSI(2) can also be used in another mode, the Critical Reflection Mode. In my view, the introduction of this mode provides the most significant advance over TSI(1). It operates in an anti-clockwise direction (considering implementation first, then choice, then creativity), raising questions about the outcomes of previous work. It does this by asking the following questions:

- Is/are the method(s) used the most suitable one(s)?
- Is/are the output(s) of the method(s) appropriate? (Flood, 1995a, p.50)

Flood (1995c) concludes that TSI(2) is more acceptable than TSI(1) because it does not force people to see methods as mere tools. Moreover, everybody is expected to post-operatively review the methods that they use in problem solving, making TSI(2) a system for practitioner learning. This is the essence of the Critical Reflection Mode. However, a detailed development of it which has been proposed by Brown and Wilby (1996), and will be described in Chapter 4.

3.6. Comparison between TSI(1) and TSI(2).

TSI(1) and TSI(2) both aim to apply different methods to reveal and tackle problem situations, and both of them are obviously based on CST. However, as we have seen earlier, TSI(1) has been criticised from many angles. Focusing on these criticisms, the improvements made by Flood make TSI(2) more acceptable and user-friendly (Flood, 1995 a,b,c). In this section, I will focus on the specific differences between TSI(1) and TSI(2).

- **Decontextualisation and contextualisation in generating creative understanding of organisational issues.**

In TSI(1), systems metaphors are used to understand organisational issues. Problem solvers select a dominant metaphor (and possibly relevant dependant metaphors) which helps them to choose the most suitable methodologies to solve the organisational problems. However, TSI(2) does not use metaphor study as the sole or even main means to understand organisational issues. TSI(2) emphasises more practical, systemic and participatory vehicles to surface organisational issues. TSI(2) argues that an organisation is better understood from many angles and from the different perspectives of participants. Diverse thinking enables problem solvers to create multiple pictures of organisational problem contexts. However, there is also a need to converge on a coherent understanding of the main problems to ensure an effective problem solving focus.

In my view, using TSI(1), problem solvers can easily work with an inadequate view of problem situations because of their personal preferences which are not opened to sufficient critique. In contrast, in TSI(2), the procedure of studying organisations has become a more open process which includes communication between different interest groups and individuals. TSI(2) also clearly introduces many practical techniques to help individuals and problem solvers practise contextualisation and decontextualisation of organisational issues. Thus, TSI(2) has improved the process of understanding organisational issues and made the process more practical and acceptable.

- **Enhancing methodological principles to improve application.**

TSI(1) and TSI(2) both embody the principles of CST and provide a practical framework for researchers and problem solvers. In my view, the key lesson which we can learn from both versions is to use systems methodologies in a pluralist fashion. TSI(1) and TSI(2) both argue that a meta-methodology is needed in order to address interrelated organisational problems. The SOSM (in TSI(1)) is based on a given understanding of the nature of different systems methodologies. In TSI(2), an organisation can be understood through four key dimensions (process, design, culture and politics) and three organisational actions, which are designing, debating and disemprisoning. Unlike TSI(1), TSI(2) is specifically concerned with the principles of systems methodologies and argues that three types of principle exist in each methodology (see Table 3.2). Therefore, each methodology can contribute something to address a certain type of organisational problem. Methodologies can also be used to deal with problem situations which they were not initially designed to tackle. Furthermore, in TSI(2), the Critical Review Mode is used to review creatively, and create knowledge of, methodologies. Therefore, a more dynamic system of methods can be created.

- **Human freedom achieved through methodological diversity.**

Human freedom is also considered as one of the main issues in both TSI(1) and TSI(2). TSI(1) anticipates that there will be a methodology(ies) that can serve the human emancipatory interest, and simply tries to find one (Ulrich's Critical Systems Heuristics). However, Flood (1993a) argues that the achievement of human freedom does not rely upon one interest, but requires the pursuit of all three. From Flood's point of view, human freedom should be achieved through efficient organisational design, open and meaningful debate, and disemprisoning from coercive structures (Flood, 1993a,b). Work on organisational processes and design prevents human

organisations from being dragged down by their own inefficiency and ineffectiveness; open and meaningful debate on organisational activities enables individuals to escape from mind-traps such as preconceptions, biases, and the inability to appreciate things due to a lack of relevant understanding of alternative viewpoints; disimprisoning empowers individuals to learn about, understand and challenge the forces of power behind designs and decisions. All three perspectives need to be taken into account to achieve human freedom in organisations.

- **The Critical Review Mode and the Critical Reflection Mode enrich social awareness and therefore the application of TSI(2).**

Finally, both TSI(1) and TSI(2) are concerned with ensuring that methods and methodologies are chosen to reflect organisational needs. Methodologies need to be studied critically before implementation. TSI(1) links creative metaphorical study and the SOSM to identify suitable methodologies for use. In contrast, TSI(2) includes two modes, the Critical Review Mode and the Critical Reflection Mode, to study various methodologies and learn about their strengths and weaknesses. Flood realises and acknowledges the principle of reflection. He criticises isolationist problem solvers on the grounds that they normally use a limited number of methods with restricted problem solving capability.

"Each method is limited, however, in the kinds of problem that it is best employed to tackle. A full range of approaches is required, sufficient to tackle all sorts of technical and human problems in the four key dimensions of organisation. This can be achieved through critical reflection on the strengths and weakness of each method, thus bringing these matters to the fore and so linking methods to the sort of problem they are best directed at." (Flood, 1995a, p.3)

Wilby (1996), exploring TSI(2) in its Critical Review Mode, argues that,

"The critical review mode can and should be applied to the meta-methodology of TSI. This would provide further enhancement and understanding of TSI at all levels, and provide an evaluation of the utility of the meta-methodology and its system of methods in the management of complex situations. Such an evaluation would provide an internal validation of the TSI model and its principles for further critique by other researchers and critical self-reflection on the part of TSI participation." (p.26)

It is understandable that using a particular methodology might benefit some groups, but might also be a danger to others. The Critical Reflection Mode can be employed to check whether the chosen methodologies have been misused to profit a particular group(s) at the expense of others, and to see if the problem situation has improved.

- **General reflection.**

I have shown some key differences between TSI(1) and TSI(2). However, we may learn important lessons from both. It is necessary to recognise that our minds might be tied into one particular pattern. We therefore have to extend our thoughts and take different points of view into account. In other words, we need to be critical. It is also necessary to draw upon the full range of systems methodologies to make our interventions as flexible and responsive as possible. These are two vital insights embodied in both versions of TSI, and provide important principles for the future development of systems methodology.

Furthermore, Flood (1995b) emphasises the role and impact of participants in the TSI(2) process. He asks, what is the central role served by TSI(2)? Who decides the outcome of TSI(2)? and How sensitive is the outcome to key players in the TSI(2) process? These questions encourage me to highlight the role of the methodology-user (who may be a manager, researcher, consultant etc.) in the evaluation of methodology.

In particular, it is hoped that this thesis can provide some insights into how the methodology-user's personal knowledge and preferences influence the process of evaluation, and how this process can be made more critical to create local knowledge of different methodologies.

3.7. Conclusion.

This chapter has shown that TSI(1) and TSI(2) have both provided important insights to enhance systems practitioners' abilities to deal with messy problem situations. They embody the three CST themes: methodological pluralism, critical awareness and emancipation. The aims of both versions are firstly, to create systemic knowledge that can help methodology-users understand the nature of various methodologies; secondly, to use methodologies to solve the problems to which they are best suited; and finally, to generate change proposals for the organisation. TSI(2) in particular is not only used in a problem solving mode, but can also be used for critically reviewing other methodologies and for critical reflection upon completed interventions. It is these uses which, more than anything else, differentiate TSI(2) from other systems methodologies, as well as TSI(1). In the next chapter, I will discuss TSI(2)'s Critical Review Mode and Critical Reflection Mode in more detail.

Chapter Four: Recent Thinking on the Critical Review Mode and the Critical Reflection Mode

Chapter Four: Recent Thinking on the Critical Review Mode and the Critical Reflection Mode

4.1. Introduction.

In line with the focus of this thesis on the critical review of methodologies for use in practice, this chapter aims to further explain the Critical Review Mode and the Critical Reflection Mode of TSI(2). These two modes provide a framework for the practitioners' preview of candidate methodologies and post-intervention reflection on implementation. In the next few sections, firstly I would like to briefly describe Flood's (1995a) Critical Review Mode and its expansion by Wilby (1996). Secondly, the Critical Reflection Mode will be discussed. This provides a means to reflect critically on methodology, both before and after implementation in organisations, and has been explored in detail by Brown and Wilby (1996). Finally, the chapter will conclude with a discussion about what can be learnt from both modes.

4.2. Flood's Critical Review Mode.

In the previous chapter, it was indicated that TSI(2)'s three modes can be used in a sequential manner, but that each mode can also be used in an independent fashion. This is to say that TSI(2) is not only a meta-methodology for problem solving, but also a vehicle to encourage methodology-users to understand and learn about the weaknesses and strengths of each methodology. Looking back for a moment to TSI(1), Flood (1995c) offers three criticisms of the SOSM (Jackson and Keys, 1984; Jackson, 1990; Flood and Jackson, 1991a) contained within it:

1. the framework (SOSM) is not suitable for practical work;
2. methods are difficult to categorise;
3. systems methods included in the SOSM are too limited in their scope. (p.188)

Flood (1995b) also argues that:

"The key to TSI's meta-methodological process is to get problem solvers to choose the 'best' methods to deal with problems taking circumstances into account. Any method can be judged right or wrong depending on circumstances." (p.329)

Flood (1995a) particularly indicates that the Critical Review Mode is needed so that a system of methods can be prepared, capable of tackling the complex and diverse problems that we face today. Indeed, he argues (in line with the commitment of CST to methodological pluralism) that no methodology should be picked and used in an arbitrary fashion. Possible candidate methodologies need to be reviewed and evaluated before intervention. In the previous chapter, TSI(1) was criticised for ignoring the issue of the methodology-users' own assumptions about methodology which inevitably influence intervention. TSI(1) simply aligns different methodologies with boxes in a grid. Ideally, methodologies should be reflected upon in the light of the methodology-users' knowledge and abilities as well as the social circumstances in which methodology-users find themselves. TSI(2)'s Critical Review Mode gives the opportunity, not only for managers to understand various methodologies, but also for researchers and methodology-users to enhance their own knowledge about the relationship between methodologies and social circumstances.

4.2.1. The Principles of the Critical Review Mode.

Some critical systems thinkers argue that a methodology is designed to deal with a particular kind of situation, and should only be used to deal with this situation (Jackson and Keys, 1984). If we accept this point of view, then it would seem that different methodologies, embodying different assumptions about our society, should not be able to cope easily with problem situations which were not predicted at the time of their creation. Yet most systems thinkers would not agree that this is the case and would claim that their methodologies can be applied in any circumstance (Checkland, 1987). This is because the methodologies were created and designed in line with the designers' paradigm, and most paradigms pretend to be all inclusive. For methodology-users, therefore, it is important that methodologies are examined and evaluated before they are implemented in a problem situation so that the limitations of the designer's paradigm can be revealed. Furthermore, through evaluating various candidate methodologies, methodology-users can also increase their knowledge of the general nature of methodology.

Flood sets out three principles for work in the Critical Review Mode:

- Assume to start with that each method under review advocates forms of creativity, choice and implementation;
- Assume to start with that each method under review tackles TSI(2)'s four key dimensions of organisation;
- Always assume that TSI(2) can learn from the methods reviewed in terms of its own philosophy, principles, process and its own method used to operate the three modes. (1995a, p.84)

4.2.2. The review process of the Critical Review Mode.

In practice, the Critical Review Mode undertakes TSI's three phases to examine and evaluate various candidate methodologies. The three phases are: creativity, choice and implementation, and these have been described in the previous chapter. Originally, TSI(1) was designed to be operated only in a problem solving mode, but in the Critical Review Mode of TSI(2), we have to reinterpret these three phases in accordance with different requirements. Figure 4.1 shows the three phases which are concerned with surfacing and evaluating candidate methodologies bidding to be incorporated in the Problem Solving Mode.

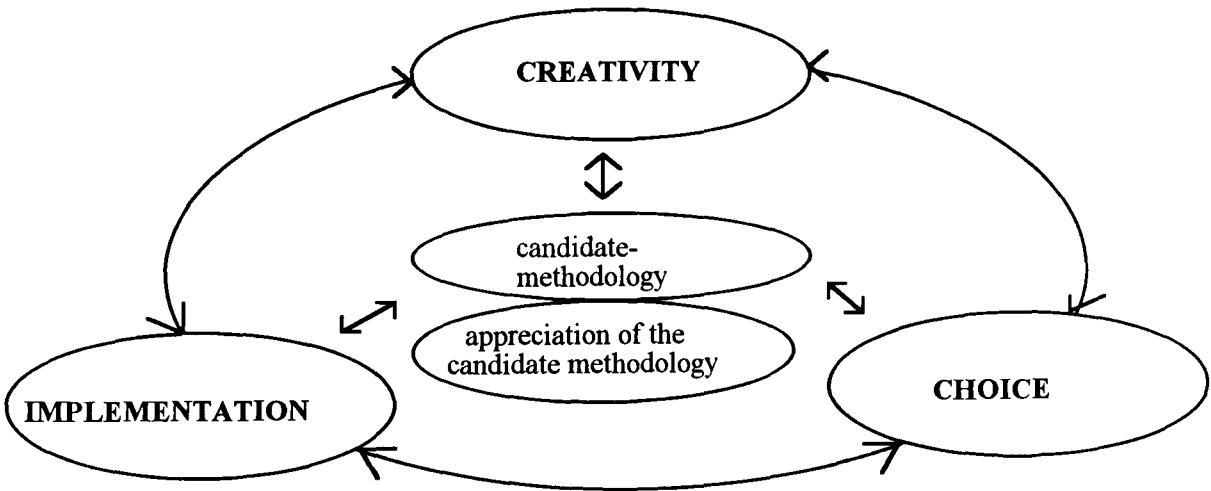


Figure 4.1 Three Phases in the Critical Review Mode
(source: Wilby, 1996, p.5)

Flood (1995a, p.84) indicates the following stages for the review process:

1. Creativity: Methods are initially categorised according to the three phases of TSI(2). Categorisation is attained by asking first of all whether the method under review contributes to one or more of TSI's three phases. Methods under review in this stage are asked if they can be categorised in terms of the three phases. Methods might contribute to more than one phase. More specifically, methods are asked, how they can contribute to (the phases) in question.

2. Choice: The second step in the review process is to focus analysis on the constituents of the method under review that are categorised within the implementation phase. In this stage, the four key dimensions will be used to analyse each method. It is argued that methods might be able to deal with particular types of organisational problems. It should be asked whether the method under review can:
 - replace the methods which have already been incorporated, if the method under review is more likely to achieve the given purposes in all circumstances;
 - be incorporated with other methods, if the method under review is needed to achieve complementarity;
 - be discarded, if there is a method which can better achieve the given purpose of the phase in all circumstances.
3. Implementation: The review process is to build up a knowledge about methods under review in terms of TSI(2)'s philosophy, principles, process and methods. This is a crucial achievement in CRM (Critical Review Mode), since TSI is assumed to learn something from the method reviewed.

Like the TSI(1) cycle, the Critical Review Mode can also be used in two directions, clockwise or anti-clockwise. The clockwise direction is as just described. In contrast, the anti-clockwise direction is used to examine whether the Critical Review Mode has been practised properly and whether the expected outcome has been gained. If not, practitioners have to reflect on what has been missed in the whole procedure and act accordingly. If we use the Critical Review Mode separately from the other two modes, the Critical Review process will help practitioners to understand various candidate methodologies. In this sense, the Critical Review Mode is used, not to surface and define organisational problem situations, but to clarify the main issues inherent in candidate methodologies and their potential uses.

As we have seen, Flood's Critical Review Mode seeks to categorise methods by means of TSI(2)'s structure and the four key dimensions of organisation. Nevertheless, if problem solving is a dynamic learning process, then a categorised and fixed system of methods will not be appropriate. Since local organisational problems are constantly

emerging and changing, the Critical Review Mode is a never-ending process that needs constantly to review more methods. The Critical Review Mode is not only applied in evaluating methods for dealing with organisational problems, it is also assumed to assist practitioners in exploring the relationship between practice and research. While practitioners practise a methodology, the information gained through methodology implementation can be fed back into a research procedure. Methodologies are never perfect; they need to be polished and improved.

4.3. Wilby's Elaboration of TSI(2)'s Critical Review Mode.

Flood's initial work on the Critical Review Mode has been substantially developed by Wilby (1996). Wilby suggests that the Critical Review Mode is best used to review candidate methodologies independently, without carrying out the other two modes. She points out that the Critical Review Mode is time-intensive, so:

"Such a process of critique is most realistically performed by those people, perhaps researchers, who are more likely to have the time and opportunity to invest in the exploration of a methodology's theory and practice, prior to the use of those methodologies in problem solving interventions." (Wilby, 1996, p.119)

Wilby's exploration of the Critical Review Mode also traces TSI(2)'s three phases: Creativity, Choice and Implementation. In the Creativity phase, Wilby indicates,

"The Creativity phase attempts to generate the possibilities, assumptions, and core issues which are inherent in the internal operation of the principles or the external practice of the candidate methodology." (Wilby, 1996, p.122)

The creativity phase is designed to creatively understand the candidate methodology. This phase:

"details the candidate methodology's philosophy, principles, methodological practice, and process; and critiques the candidate methodology in terms of how its theory, methodology, utility and ideology address the technical, practical and emancipatory knowledge-constitutive interests (Habermas, 1972) of the situation and its participants." (p.126)

In this phase, the questions "How?", "What?" and "Why?" need be answered concerning the candidate methodology. This is to find out which organisational dimension the candidate methodology best addresses.

For Wilby (1996), the Choice phase is linked with the three commitments of CST (critical awareness, emancipation, and methodological pluralism) and Habermas's (1976, 1984a) theory of communication (which proposes three validity claims: truth, rightness and subjective understanding). For Habermas (1984a), there is a need to combat systematically distorted communication (ideology). This can be done by setting up an "ideal speech situation". Ideal communication between speakers and listeners is through comprehensive language use, which involves making and challenging three types of validity claim, as well as the basic claim of comprehensibility.

"...when one person says something to another, that person implicitly (sometimes explicitly) makes the following claims: 1) that what is said is intelligible; 2) that the propositional content of whatever is said is true; 3) that the speaker is justified in saying whatever is said; 4) that the speaker is sincere in whatever is said." (Giddens, 1990, p.128)

Any argument may therefore be challenged as unintelligible, untrue, unjustifiable or insincere. The potential for all these types of challenge must be present for ideal speech to exist.

Both CST's commitments and the validity statements are integrated by means of a "CST-Thread". The CST-Thread is used in the choice phase and helps practitioners to

categorise and compare the various outputs from the creativity phase. Wilby (1996) identifies four operations in the choice phase: categorisation, comparison, evaluation and critical reflection:

- 1. Categorisation of the information generated in the creativity phase.
- 2. Comparison of that information both against the candidate methodology's own stated internal principles and with the knowledge accumulated in the system of methods.
- 3. Evaluation of that comparison in terms of its enhancement of the candidate methodology, TSI(2), the system of methods, and how the candidate methodology fits into and adds to TSI(2)'s systems methods.
- 4. Critical reflection on the choice process just undertaken before the information from the choice phase moves into the implementation phase. (p. 129-131)

In carrying out these operations, it is necessary to bear in mind the validity claims (see Table 4.1) which are based on Habermas's theory of communicative competence. Practitioners should acknowledge which claim each methodology is best at investigating.

Habermas (1972)	Habermas (1984)	Flood and Jackson (1991a)	Flood (1993a)
Technical interest	Truth	Hard systems methodologies	Design methodologies
Practical interest	Rightness	Soft systems methodologies	Debating methodologies
Emancipatory interest	Truthfulness	Critical systems methodologies	Disemprisoning methodologies

Table 4.1. Validity Statements and Systems Methodolgies
(source: based on Wilby, 1996, p.128)

The final phase, Implementation, is to accumulate information from the previous two phases and ask how the practitioners' knowledge of the candidate methodology can be enhanced and enriched. A system of methods can be created through a critical review process and passed to the Problem Solving Mode.

Wilby (1996) develops the critical review process in 6 steps:

1. Understanding/creativity (steps 1 and 2) is to surface the basic understanding of the candidate methodology being critiqued. (Wilby, 1996, p.126)

In these two steps - involving understanding and creativity - the candidate methodology is investigated in terms of its philosophy, principles, methodological practice and process. Moreover, how the candidate methodology relates to Habermas's (1972) Knowledge-Constitutive Interests (technical, practical and emancipatory interests) is addressed.

2. Categorising/choice (steps 3,4 and 5) is to use information from the first two steps to further review the candidate methodology in terms of its contribution to knowledge about methodologies and their purposes for the Problem Solving Mode. (Wilby, 1996, p.126)

In these steps of the Critical Review Mode - involving categorising and choice - Wilby (1996) indicates to which of TSI(2)'s three phases (Creativity, Choice and Implementation) the candidate methodology contributes. This is also concerned with how the candidate methodology tackles Flood's (1995a) four key organisational dimensions (design, control, culture and politics). Finally, what the candidate methodology does to address TSI(2)'s four principles (being systemic, being reflective, enhancing emancipation, and encouraging meaningful participation) is considered.

3. Analysis/implementation (step 6) is to sort, evaluate and implement the information gathered in the previous five steps of the Critical Review Mode. This phase reflects on the overall process and has the choice of either passing the information forward for use in the Problem Solving Mode, or cycling back into the Critical Review Mode at any point for further evaluation of the candidate methodology. (Wilby, 1996, p.126)

This final implementation involves gathering information from steps 1 to 5 to present a critique of the candidate methodology. The question is asked, how does the information enhance TSI(2) and the candidate methodology itself? The final implementation also involves criticising the system of methods and considering how it can be enhanced.

The six steps are allocated into the three different phases of TSI(2). According to the logic of TSI(2), the Critical Review Mode also runs in reverse direction; that is, it can become a process of critical reflection which questions and reviews the outputs of each of the individual phases. In other words, the Critical Review Mode can be used anti-clockwise to review the information that has been gathered.

Wilby concludes that the end result of using the Critical Review Mode is a body of knowledge that is more than a simple addition of all the information generated in the individual steps of the mode.

"The enlightenment from this review process comes from the complete review, and the quality and benefits of this enlightenment are a direct result of the quality of the critical review of a candidate methodology." (Wilby, 1996, p.137)

Furthermore, she hopes that "the output of the critique is not only a comprehensive review of the candidate methodology, but also a more comprehensive system of methods for use in the problem solving mode." (Wilby, 1996, p.137)

However, having said that the Critical Review Mode can be used to build a system of methods, it is important to acknowledge Wilby's realisation that different researcher(s) may make different interpretations, which will lead to different results from the review.

"...while the information surfaced in this mode may be agreed among researchers and participants, its precise interpretation is still a subjective task dependent both on the individual's biases and the context of the situation the individual is in at that time. The interpretation of any generated information is therefore open to both the internal limits of the individual in terms of skill, knowledge, and biases, and also to the external limitations of the influences of context and physical situation on the individuals."
(Wilby, 1996, p.119)

Indeed, this can be seen as unavoidable in any research or management intervention. Social circumstances and individuals' understandings change constantly. Any review result needs to be seen as a reference point for the next critique. Researchers and practitioners should realise that they have to view and practise a candidate methodology according to their shifting interpretations of current social circumstances, and constantly update the researchers' ability and knowledge. Thus, systems methodologies cannot be concretely fixed, but should be used dynamically according to the assumptions and knowledge among practitioners, organisational and environmental stakeholders, and the creators of the methodologies themselves. Later, when I present my own methodological developments, this will be a central issue.

4.4. Critical Reflection in TSI(2).

While the Critical Review Mode is pivotal to the aim of this thesis to develop the critical review of methodology, the Critical Reflection Mode is also relevant, especially the work of Brown and Wilby (1996). Flood (1995a) points out that the Critical Reflection Mode plays an important role in evaluating whether the method(s) chosen was/were most suitable in terms of being appropriate to the circumstances. Brown and Wilby (1996) look into the detail of the Critical Reflection Mode and argue that it can address both the reflection requirements within an on-going implementation to benefit current learning (formative evaluation), and it can also address the reflection requirements of evaluating a completed implementation where learning is applied to subsequent interventions (summative evaluation). The significant point in their paper is that, following Guba and Lincoln (1989), reflection should be seen as a learning process which enriches practitioners' understanding in dealing with organisational problems. Thus, the Critical Reflection Mode challenges the practitioner's tacit knowledge which directs his or her actions in practice.

Brown and Wilby (1996) enrich the Critical Reflection Mode in terms of the perspectives of three questions; "How?", "What?" and "Why?". This is elaborated below.

4.4.1. The "How" of Critical Reflection in TSI(2).

Brown and Wilby (1996) argue that the Critical Reflection Mode can be seen as an evaluation process and cite Guba and Lincoln's argument (1989) that "fourth generation evaluation" is based philosophically on hermeneutic dialectics. It emphasises participation in deciding criteria locally. From Brown and Wilby's point of view, there is a need to involve and empower participants in the evaluation process, which will increase their understanding of the evaluative possibilities. Therefore, the evaluation

process enhances participants' learning from the evaluation. Most importantly, the role of the evaluator moves from being expertly defined as a "measurer-describer-judge", to one of "collaborator, co-learner, and joint reality-shaper" (Brown and Wilby, 1996).

"...there is a collaborative participative process (meaningful participation), a learning process (reflective), and a focusing on reality definition and social action (emancipation)." (Brown and Wilby, 1996, p.15)

Moreover, Brown and Wilby (1996) agree with Schon (1983) that technical rationality (accepting ends as given and focusing purely on means) is unable to open to question the underlying understandings and assumptions (tacit knowledge) by which decisions on end objectives are reached. Thus, Schon (1983) argues that tacit-knowledge needs to be reflected upon and reviewed in order for us to improve our ability to learn and be effective. The process to critique our tacit knowledge is to be open to external views, theories, beliefs and assumptions.

"This process however assumes a willingness or ability to be open within a group process of inquiry. This openness requires our understanding of previous experiences or phenomena to come into contact with the unique aspects of the current situation, and the conflicting views and tacit understandings which are brought by different participants to the change process." (Brown and Wilby, 1996, p.19)

4.4.2. The "What" of Critical Reflection in TSI(2).

Brown and Wilby (1996), following Flood (1996a), identify five levels of systemicity relating to the Critical Reflection Mode. These are represented in Figure 4.2.

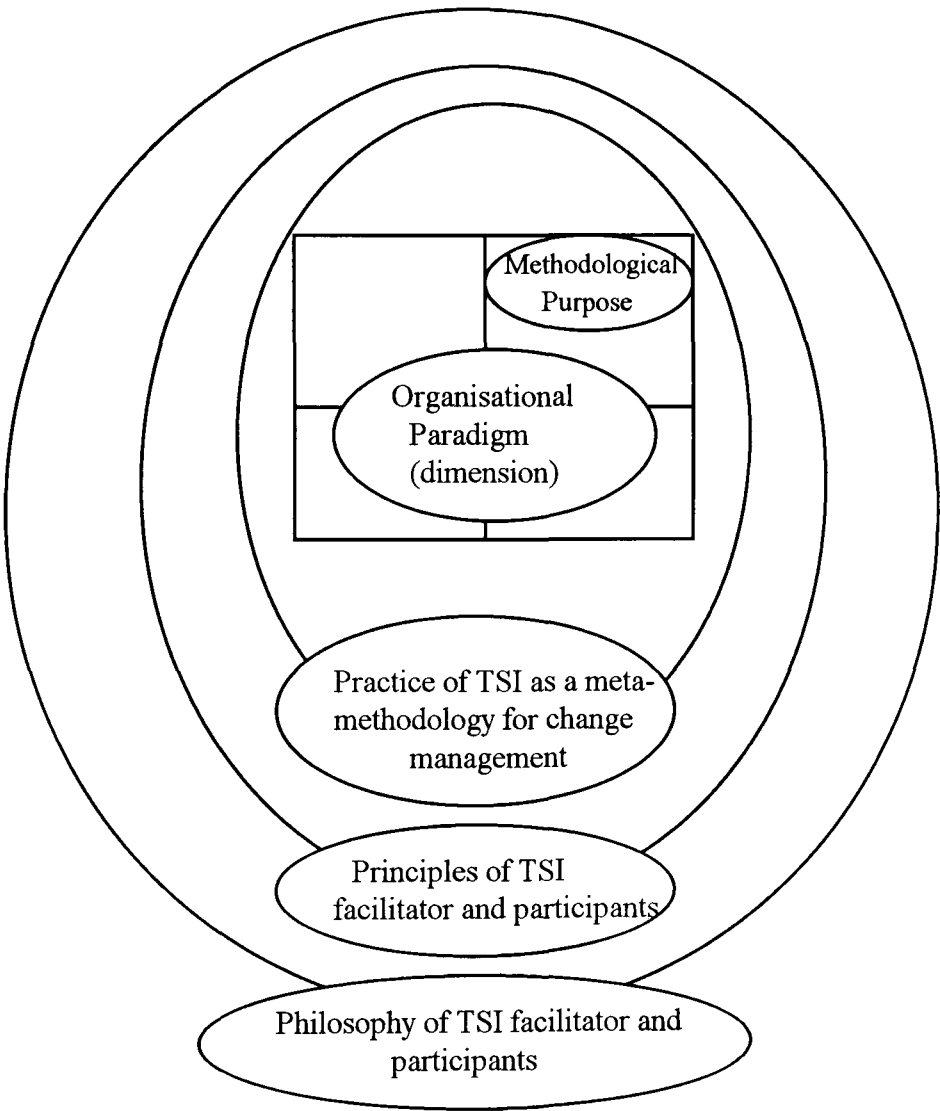


Figure 4.2. The Five Levels of Systemicity based on Flood, 1996a (source: Brown and Wilby, 1996, p.20)

This framework guides the focus of the reflective process. It widens it to encompass the whole of TSI(2) and any additional individual and group principles and philosophies that appear to be of relevance (Brown and Wilby, 1996).

4.4.3. The "Why" of Critical Reflection in TSI(2).

Brown and Wilby (1996) also point out two important issues that justify reflection: effectiveness in intervention, and the moral responsibility of the facilitator. To make interventions effective, facilitators need to be responsive to the participants and various definitions of their situation; to be willing with participants to adjust not only their actions, but also their underlying "tacit knowledge" or assumptions; and to maximise the learning potential of the situation. Brown and Wilby (1996) argue that facilitators may individually reflect on an intervention, but reflective potential is enhanced by also reflecting with the participant group, to open the facilitator to the challenge of their views and perspectives.

Moreover, facilitators have a moral responsibility, concerned with individual rights and social responsibilities:

"In practice, it may be that formative evaluations tend toward pragmatic issues of effectiveness, while summative evaluations consider the ethical aspects of principles and philosophy in more depth. In either case, if the reflection encompasses both states then the learning and personal challenges to our assumptions may occur both within the intervention and beyond, into new situations." (Brown and Wilby, 1996, p.25)

In essence, Brown and Wilby's exploration of the Critical Reflection Mode indicates that intervention does actually need to be reviewed. This is because of the social and individual biases that inevitably affect the intervention process. Assessment or evaluation is a learning process which enriches participants' (including the practitioner's) understanding through challenges to their underlying assumptions (tacit knowledge).

From Brown and Wilby's exploration of the Critical Reflection Mode, it is clear that the reflection process should involve both practitioners and local participants. Reflection is a learning process not only for the organisation but also for the

practitioner him/herself. However, Brown and Wilby do not clearly spell out how to challenge the practitioner's tacit-knowledge, other than saying that he or she should consider the validity of the assumptions underlying the views of other participants.

4.5. In Summary, What can be Learnt from the Review of Methodology in TSI(2)?

Flood (1995a) states that TSI(2) offers procedures to integrate all methods for problem solving in a process which ensures that they are employed to tackle only the issues they are best suited to. Flood (1995b) argues that:

"TSI(2) builds up a system of methods for creative thinking, choice of methods for implementation, and methods for implementation within a reflective process." (p. 393)

To create such a system of methods, first of all practitioners need to go through TSI(2)'s Critical Review Mode that provides systemic guidelines for practitioners to understand and organise various methodologies. The system of methods can then be used practically in local problem contexts as part of the Problem Solving Mode. Finally, in the Critical Reflection Mode, the adequacy of methodological understanding becomes the focus of learning.

The following points have been addressed in TSI(2):

- meaningful participation in organisations;
- respecting various perspectives;
- critically reviewing each perspective;
- understanding the assumptions and beliefs behind each perspective;
- focusing on social dynamic interactions between various perspectives;
- continuous learning process.

Clearly, each mode in TSI(2) enriches our understanding of systems methodologies and problem contexts (see Table 4.2).

	Critical Review Mode	Problem Solving Mode	Critical Reflection Mode
<u>Outputs</u>	System of methods	Change proposals	Knowledge of intervention
<u>Participants</u>	Researchers	Practitioners	Researchers/ Practitioners
<u>Process</u>	Classification	Intervention	Evaluation
<u>Where to practise</u>	Not specified	Organisations	Organisations
<u>When to practise</u>	Pre-intervention	During-intervention	During and post- intervention

Table 4.2 Comparson of the Three TSI(2) Modes.

TSI(2)'s three modes emphasise that methodologies should not simply be taken for granted; it is necessary to re-examine and understand various methods and problem situations on a continuing basis. A methodology can be seen as a product of certain assumptions about society. It also contains ontological and epistemological assumptions. Such assumptions can be influenced by individual, social and political circumstances. Practitioners need to take various perspectives into account and reveal the reason behind any assumptions that are made about organisational circumstances. A system of methods is built temporarily and within the limits of the researchers' understanding. However, in order to find the most suitable methodology for an organisation, Flood (1996b; 1997) argues that all three of TSI(2)'s modes need to involve stakeholders in meaningful, local participation. If the process of reviewing

methods can be transplanted into an organisation, it will become local knowledge and, most importantly, the organisation will have the capacity to learn.

4.6. Conclusion.

This chapter has shown that TSI(2) has been developed and used to review the nature of methodologies and their use in intervention. The Critical Review Mode provides a means for systems practitioners to understand the strengths and weaknesses of methodologies. The knowledge obtained from this leads practitioners to choose the most suitable methodologies to be incorporated into a system of methods for use in the Problem Solving Mode. The Critical Reflection Mode gives opportunities for practitioners to reflect on the results of intervention and decide whether the candidate methodology was indeed the most suitable for the organisation. TSI(2) shows that all three modes need to be operated participatively to provide critical understandings of organisational problem solving.

Chapter Five: The Paradigm Problem

Chapter Five: The Paradigm Problem

5.1. Introduction.

Understandably, human activities can be viewed in different ways which are determined by people's viewpoints, deriving from their "beliefs, background, interests and social circumstances." (Yolles, 1996). These structure our way of viewing problems and of finding ways of solving them. Before building on TSI(2) and discussing my own methodology, it must be acknowledged that a significant theoretical problem faces anyone who wishes to use one methodology to review another. This is the problem that different methodologies are born in different paradigms, so how can we really understand one paradigm from the perspective of another? In order to address this problem, I will firstly consider the meaning of the term "paradigm". Secondly, I will discuss some arguments concerning the possibility of paradigm communication. Thirdly, it will be shown that inter-paradigm communication is not only possible, it is also desirable. The Critical Appreciation Model (Gregory, 1992) will be introduced here. This shows how researchers can view and interpret an alien perspective by means of four types of method. Finally, this chapter will conclude that, because of ideological influences, we cannot produce an "objective" picture of a methodology under review. However, new insights into a methodology can still be generated.

5.2. The Nature of Paradigm.

Kuhn (1970a) argues that the history of science has repeatedly provided us with new ways of seeing that serve to change the fundamental concepts and understandings of reality. He calls these ways of seeing "paradigms". Individuals who have different

paradigmatic perspectives must be considered to be operating "in different worlds" (Kuhn, 1970a). Hassard (1993) explains it thus:

"When science changes, a new approach emerges based upon the fresh dictates of an alternative community structure, the new tradition, like the old, being what Kuhn terms a "paradigm." (p.77)

Masterman (1970) suggests that a "paradigm" is a scientific achievement that involves two characteristics; it is

1. sufficiently unprecedented to attract an enduring group of adherents always from competing modes of scientific activity,
2. sufficiently open-ended to leave all sorts of problems for the redefined group of practitioners to solve. (p.66)

Masterman (1970) also concludes that Kuhn's various definitions of paradigm (25 in all) fall into three groups: metaphysical paradigms (meta-paradigms); sociological paradigms; and artefact paradigms (construct paradigms). Morgan (1980) rephrases these three broad senses of paradigm as follows:

1. as a complete view of reality, or way of seeing;
2. as relating to the social organisation of science in terms of schools of thought, and
3. as relating to the concrete use of specific kinds of tools and texts for the process of scientific puzzle-solving. (p.607)

He then clarifies that, in his view, only complete views of reality should be called paradigms. These paradigms give rise to metaphors, which are the foundation stones for the different scientific schools of thought, which in turn give rise to different

problem solving activities (tools and texts). This terminology is represented visually in Figure 5.1.

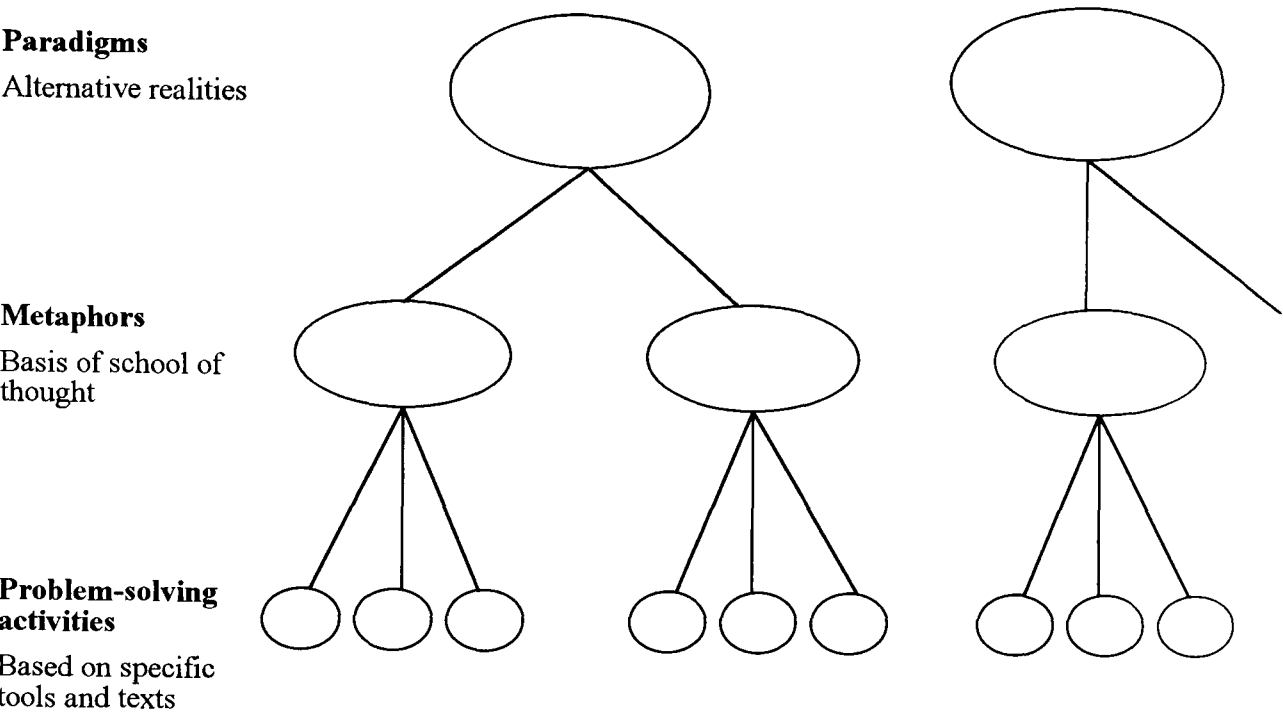


Figure 5.1. Paradigms, Metaphors, and Puzzle Solving: Three Concepts for Understanding the Nature and Organisation of Social Science.
(source: Morgan, 1980, p.606)

The question arises, how is a "paradigm" generated? Morgan (1980) uses Mannheim's example (1936) of the urbanisation of a peasant boy as a means of illustrating "how ways of thinking about the world are mediated by social milieu, and how the acquisition of new ways of thinking depends upon a departure from the old world view." (p.605). He argues that there are two possibilities for describing paradigmatic interpretations of reality. Firstly, it is possible to say that our view of reality is based on our understanding, which comes from learning experiences, and exists in our minds without our being aware of it; our paradigmatic status will affect our ways of thinking and our choice of tools for puzzle-solving. This is a relatively "neutral" view of paradigms compared with the second, described below. In the view of some authors, our paradigms, or ways of seeing reality, can be unconsciously affected by social forces

which systematically shape the dominant way of thinking. This view, which is derived from the work of Marx and Habermas on "ideology", treats paradigms as false consciousness. Individuals receive what is traditionally regarded as correct, without criticising it.

These two views need not, however, be treated as mutually exclusive. We can say that "paradigms" exist in individuals' minds and can be seen as frameworks, embodying fundamental concepts about reality, that guide individuals to choose a particular perspective from which to view local situations and to solve problems. The frameworks may be unconscious, and will be produced through individuals' previous experiences in socio-political situations. In my view there are many "paradigms" existing in our society because different individuals have different experiences and receive different influences from society.

In the next section, I will describe Burrell and Morgan's (1979) categorisation of different social theories based on ontological and epistemological assumptions and the nature of society. They suggest that there are basically four broad paradigms co-existing in society.

5.2.1. Burrell and Morgan's Four Social Paradigms.

Burrell and Morgan (1979) use the term "paradigm" in a broader sense than Kuhn. They do not follow Kuhn's view that a period of "normal science" is overtaken and superseded by a period of "revolutionary science", giving rise to a new paradigm. Instead, they argue that social theories can be conveniently understood in terms of the co-existence of four distinct and rival paradigms defined by very basic meta-theoretical assumptions relating to the philosophy of science and the nature of society (see Figure 5.2).

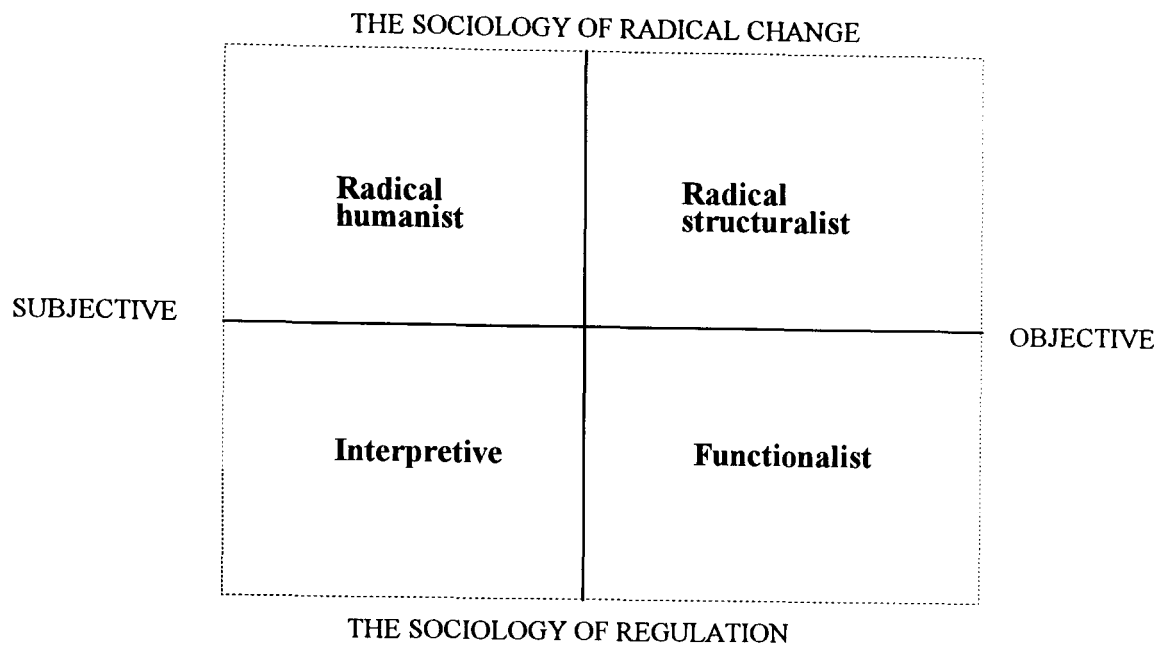


Figure 5.2 Four Paradigms for the Analysis of Social Theory
(source: Morgan and Burrell, 1979, p. 22)

Their model is based on an intersection between two dimensions, as follows (Burrell and Morgan, 1979):

- The subjective-objective dimension is based on ontology, epistemology and assumptions about human nature. Assumptions of an ontological kind concern the essence of the phenomena under investigation. Associated with ontological issues is a second set of assumptions of an epistemological nature. These are assumptions about the grounds of knowledge about how one might begin to understand the world and communicate this as knowledge to fellow human beings. The third assumption, concerning human nature, is about the relationship between human beings and their environment. The three sets of assumptions summarised above have direct implications of a methodological nature. Each has important consequences for the way in which one attempts to investigate and obtain knowledge about the social world. Different ontologies, epistemologies and models of human nature are likely to incline social scientists towards different methodologies.

- The radical-regulatory dimension is about the nature of society. The "sociology of regulation" refers to the writings of theorists who are primarily concerned to provide explanations of society in terms which emphasise its underlying unity and cohesiveness. In contrast, the "sociology of radical change" is concerned to find explanations for radical change, deep-seated structural conflict, modes of domination and structural contradiction which its theorists see as characterising modern society.

This model (Figure 5.2) clearly shows how different social theories can be located according to their meta-theoretical assumptions. Each paradigm represents a distinctive view of reality. Of course, significant criticisms have been raised against the model. Notably, Willmott (1993) argues that most social theories cannot be pigeon-holed so easily. However, the main point Burrell and Morgan (1979) make, which stands even if the model is discarded, is that there is no innately superior paradigm for problem solving, and paradigms exist in parallel, not following in sequence as Kuhn (1970a) claimed.

5.2.2. Some problems.

This discussion of paradigms raises some difficult problems. In particular, if paradigms are unconscious world views held by particular groups of social researchers, then researchers would not be able to choose among them (Goetz, 1990). And if researchers can learn about paradigms and make choices, can they be bound to a single tradition? Moreover, can people based in different paradigms communicate with each other, and if so, how? In the following section I will discuss the debate on paradigm commensurability and communication.

5.3. Communication between Paradigms.

From Kuhn's point of view, a new paradigm replaces an old one because the old paradigm cannot deal with the anomalies thrown up by scientific inquiries (Kuhn, 1970a). Thus, Kuhn argues that paradigm transformation and shift is possible. However, there are no objective criteria for comparison between paradigms. As Hassard (1993) says:

"Kuhn argues that a change of paradigm allegiance cannot be based on open debate as there are no logical arguments to demonstrate the superiority of one paradigm over another. As the new paradigm is incommensurate with the old, there is no recourse to an independent arbiter or mediating third party." (p.78)

However, Kuhn indicates that partial communication is possible. He refers to "shared everyday vocabularies" which serve to isolate "areas of difficulty in scientific communication." (1970b; 1977, p.134) He suggests that communication between paradigms is like language translation in which one must understand two languages.

In Burrell and Morgan's (1979) social paradigm model, they make clear their belief that it is not possible to embrace two paradigms at the same time:

"...the four paradigms are mutually exclusive. They offer alternative views of social reality, and to understand the nature of all four is to understand four different views of society. They offer different ways of seeing. A synthesis is not possible, since in their pure forms they are contradictory, being based on at least one set of opposing meta-theoretical assumptions." (Burrell and Morgan, 1979, p.25)

Although Burrell and Morgan's model clearly shows that people in different paradigms view organisations differently, according to their assumptions about the nature of reality, there are no a priori grounds for deciding which paradigm has the better problem solving ability and thus the right to supersede other paradigms (Jackson and Carter, 1991, p.117). Nevertheless, this is not to say that communication and dialogue

between people based in different paradigms is impossible. Hassard (1993) argues that Burrell and Morgan's references to inter-paradigm communication are confusing: they assert that paradigms are mutually exclusive, but imply that inter-paradigm understanding is nevertheless achievable. As Guba (1990) states:

"The dialogue is not to determine which paradigm is, finally, to win out. Rather it is to take us to another level at which all of these paradigms will be replaced by yet another paradigm whose outlines we can see now but dimly, if at all. That new paradigm will not be a closer approximation to truth; it will simply be more informed and sophisticated than those we are now entertaining." (p.27)

Paradigm communication provides opportunities for individuals to see reality through other patterns of thought, either leading to an elaboration of the original paradigm or the generation of a new one. Midgley (1992c) says:

"Not only does each individual have a unique position as a nexus for the meeting and critique of different discourses, but also we can say that we each have a unique relationship with the natural world. While this is informed, and our knowledge of it is defined, by socially learned meanings, it nevertheless shapes the individual perception of shared knowledge. Thus an individual's creativity, born out of his or her own unique position in the natural world, can, through communication, eventually transform the shared meanings themselves and thereby initiate action to change the social system." (p.152)

Firestone (1990) gives an alternative conception of paradigm communication which is to view it as cross cultural understanding. He indicates that people can agree on the existence of a paradigm without agreeing on its rationalised form. He says that it is very difficult for someone steeped in a culture to imagine doing things differently, but that, if paradigms are cultural constructs, each will have its own logic, but that logic is not necessarily ultimately compelling. Firestone (1990) believes that the culture analogy of paradigm can provide grounds for understanding paradigm dialogue and shift. The idea of culture implies both competition and change. He argues that

pluralistic research that combines practices from different paradigms (cultures) will be extremely common. Moreover, just as cultural diffusion leads to creativity, cross-paradigm research can be extremely fruitful. This has some similarity with the position advanced by Flood and Romm (1996b,c) who talk about "paradigm (in)commensurability", indicating that learning about other paradigms is possible, but only from a base position of an original paradigm.

Jackson and Carter (1991) argue that communication, while difficult, is still possible. However, that doesn't mean that it is always desirable:

"The recognition of paradigm incommensurability provides the best defence for radical perspectives against the encroachments of the orthodoxy, and offers the best conceivable stimulus to genuine agnostic debate." (Jackson and Carter, 1991, p.126)

In terms of language difficulties in paradigm communication, Gioia and Weaver (1994) indicate that if some linguistic commensurability is admitted, and incommensurability or contradiction is invoked in some non-linguistic fashion, it is difficult to see in what sense meaningful communication is impossible. For instance, cross-cultural communication may be difficult for both anthropologists and ordinary persons, but it is nonetheless the case that representatives of both groups manage to succeed tolerably well at it on a fairly regular basis.

Hassard (1993) argues that

"In Kuhn, the scientific community is largely bound by the pre-suppositions it holds, such premises in turn providing the rules discerning the perceptual limits of problems and solution. Language erects the boundary encircling what scientists think and therefore do." (p.82)

Hassard suggests that paradigms are like Wittgenstein's (1953) "language games":

"..the term 'language game' is meant to bring into prominence the fact that speaking of language is part of an activity, or of a form of life." (p.23)

Wittgenstein (1953) argues that there are two types of language game: "everyday" and "technical or special". "The everyday language-game is basic language that enables us to ask questions, speak....Whereas, special language games can be seen as discrete and bounded but for different purposes." (Hassard; 1993, p.84). While paradigms might speak different, special languages, those languages can be converted by using everyday language:

"As the rules and conventions of our 'meta-language in use' serve to explain each special language-game, then in turn the interpenetration of language-games such as theorising and testing can be used as the basis for the explanation and learning of other special languages. Practitioners in differing paradigms not only share ordinary language, they also experience the common overlap of intersecting technical language." (Hassard, 1993, p.86)

Hassard (1993) comments on those who argue that paradigms are exclusive, but nevertheless advocate inter-paradigm research (e.g. Ritzer, 1975; Burrell and Morgan, 1979; Pondy and Boje, 1981; Morgan, 1983). He expresses the view that Wittgenstein's theory provides the grounds for seeing how this might be both possible and desirable:

"Multiple paradigm research may allow us to learn the languages and practices of a wide range of academic communities and in turn to develop analytic skills representative of their forms of life." (Hassard, 1993, p.110)

Willmott (1993) states that paradigm dialogue serves the cause of mutual development, and we can enrich our self-understanding through a process of engagement with others. An openness to the other does not necessarily result in

subordination or the suppression of difference. Indeed, a dialogical accommodation is based on the notion that the social sciences are multi-paradigmatic, characterised by several viable paradigms, with no single one dominating. Austin (1990) states that:

"A dialogical accommodation involves recognising and learning to speak to and through the various paradigms, using them for what they are - that is, just paradigms." (p.137)

However, the question arises, how can inter-paradigm communication be conducted? From a critical systems point of view, paradigm communication needs to involve not only observation, interpretation of an alien paradigm, and the generation of understandings of the social circumstances in which the translation happens, but also some analysis of translators' (researchers') inner understandings (Gregory, 1992). In the following section, a model concerned with inter-paradigm understanding will be presented which provides a clear guide for inter-paradigm communication.

5.4. Gregory's Discordant Pluralism and Critical Appreciation Model.

According to Gregory (1992),

"Those who wish to understand alien paradigms may encounter difficulties through the imposition of their own concepts (imperialism) or in assuming they can know what the other paradigm knows and does." (Gregory, 1992, p.142)

She argues that paradigm communication is in fact dynamic, but also paradigmatic in itself:

"When we take a perspective through which we describe other (incommensurable) paradigms we are adopting a paradigmatic position which both allows inter-paradigm incommensurability and yet sees the 'shared history', 'the everyday' features that are common." (p.150)

She suggests the need for

"An alternative pluralist perspective (to Flood and Jackson' (1991a) complementarism) which allows for communication between alien paradigms which should allow their differences and conflicts to be considered." (p.146)

She calls this alternative perspective "discordant pluralism" (see also Chapter 2 of this thesis), saying that "'discordant pluralism' strives to promote certain features of incommensurable paradigms that make them antagonistic to one another." (p.159) Her "discordant pluralism" derives from the constellation analogy, which she explains as follows:

"By 'constellation' I am referring to the stars and planets which comprise a particular view of the night sky. From different locations at various times of the year, depending upon the weather, one view will be distinguishable from other, local and contingent perspectives." (Gregory, 1996, p.617)

Each person is able to assemble a "constellation" of understandings of different paradigmatic views which may shift and change along with the position of the person him or herself. Gregory (1996) adds that:

"Discordant pluralism has three main features. The first of these is its local, contingent, and historically situated nature. Second, discordant pluralism promotes communication with other, radically different and alien perspectives. Here, the emphasis is on communication which can help us 'come to a deeper understanding of ourselves precisely in and through the study of others'. The third feature concerns the use of insights gained through such communication to provide for ethical decision making. This is achieved through the juxtapositioning of oppositional view-points within a constellation that supports both one perspective and the other. Issues need no longer be framed in an "either/or" manner." (Gregory, 1996, p.620)

It is necessary to recognise that researchers interpret others' paradigms through the researchers' own perspectives, because researchers cannot escape their own paradigms. Moreover, Gregory (1992) argues that researchers have to keep in touch with the situation in which they are embedded, because the social situation will also affect their interpretation and understanding of alien paradigms. She therefore argues that four kinds of approach are needed if inter-paradigm communication is to be conducted critically: historical-hermeneutic inquiry (surfacing other views and communicating ones own), empirical analytic inquiry (observations of the situation), ideology-critique (examining the social construction of the various viewpoints) and self-reflection (revealing the researcher's own assumptions).

The relationship between the four approaches is shown in Figure 5.3. People are required to cycle between ideology-critique, self-reflection, empirical-analytic inquiry and historical-hermeneutic inquiry.

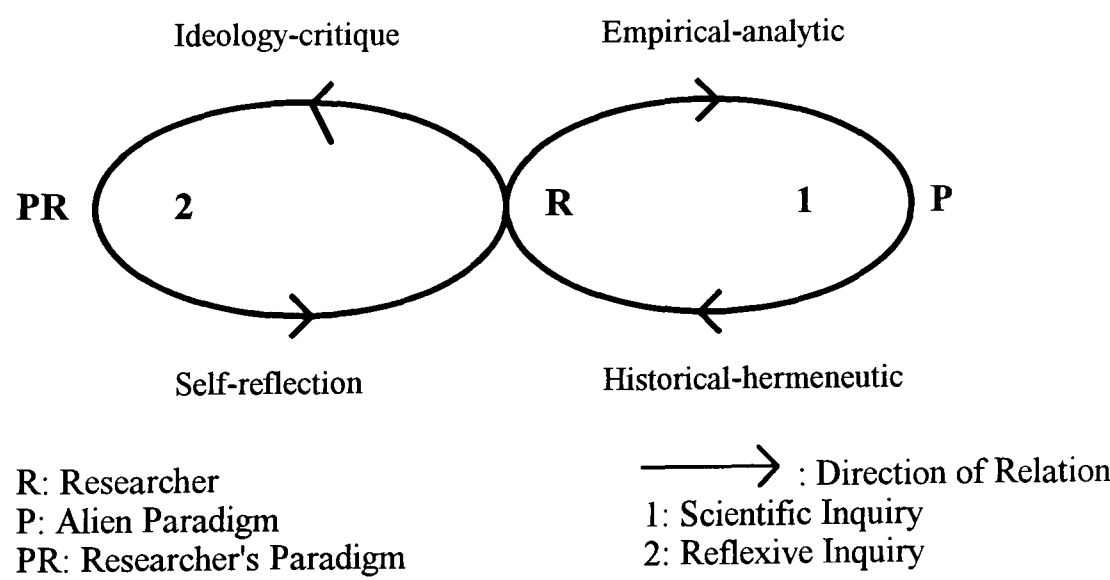


Figure 5.3. The Critical Appreciation Model
(source: Gregory, 1992, p.188)

The researcher will interpret the alien paradigm through his/her own understanding generated through the use of the four approaches, and the interpretation will become the researcher's reference. Thus the researcher will gain knowledge in the process.

"Since every effort to engage in conversation with an opponent involves the history of pervious debate, the understanding that can be gained will be different each time. Our appreciation of alien perspectives should be dynamic and contingent, like any constellation." (Gregory, 1996, p.618)

5.5. The Problem of Ideology.

A key aspect of Gregory's (1992) model is ideology-critique. Earlier in this chapter, when seeking to define "paradigm", I suggested that paradigmatic frameworks are provided through individuals' experiences in socio-political situations. In other words, if ideology influences an individual's view of the world, then it will influence his or her paradigmatic position. This implies that knowledge (which is inevitably paradigmatic) is actually made up of ideological assumptions. Thus, the next chapter will focus in more detail on the meaning of "ideology", and finally an attempt will be made to understand how one can "escape" from what may be called the "ideology trap" through ideology-critique.

5.6. Conclusion.

This chapter has shown that paradigm study can provide understandings of the different meta-theoretical assumptions lying behind different social theories. Paradigm communication is possible, but it should be recognised that it can only be conducted from within a paradigmatic, and therefore an ideological, stance. Researchers cannot avoid communicating from their own paradigms, so they need to try to reveal their paradigmatic positions and social circumstances in order better to understand both

themselves and others. Gregory's (1992) discordant pluralism and Critical Appreciation Model give clear guidelines for how this might be achieved.

I conclude that any attempt to review a methodology will not provide an "objective" picture of its strengths and weaknesses. It will only describe strengths and weaknesses in the terms allowed by the methodology used to conduct the review. Therefore, it is vital, as far as possible, to reveal the assumptions of a reviewing methodology so that it is not placed beyond critique.

In the next two chapters, I will explore key ideas that need to be taken into account in the design of a reviewing methodology: 1.) the need for ideology-critique and 2.) the question of who are the stakeholders of methodology review (who can affect, and who may be affected by, its use).

Chapter Six: The Need for Ideology Critique

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6.1. Introduction.

In discussing the assumptions that a methodology for methodology evaluation should embrace, the first one we should consider is that paradigms are not ideologically neutral. Given that this is the case, we need to have an idea of what ideology actually is, and how it can be critiqued. This chapter therefore discusses the history of the concept of ideology. We will see that ideology-critique is a vital factor in the methodology evaluation process. However, ideology-critique does not seek to "objectively" judge (an) alien ideology; it is more likely to create a forum in which a researcher can understand and interpret alien ideologies by means of several meaningful paths for inquiry.

6.2. The Concept of Ideology and Its Historical Development.

The term "ideology" has its origins in the philosophy of the French materialists of the eighteenth century (Howard, 1988). In the eighteenth century, French philosophers felt religious representations were no longer an integrating force, but on the contrary, the source of all superstitions, false notions and preconceptions. The French Enlightenment proclaimed the right of free thinking. The philosophers of the Enlightenment were pleasure-seeking and anti-religious. The term "ideology" was first used by Destutt de Tracy at the end of the eighteenth century and was fully developed as a concept during the nineteenth century. de Tracy proposed that the main mission of science was to criticise our received cultural, social and religious conceptions and put in their place emancipatory ideas (Howard, 1988). Thus, de Tracy was concerned with systematising a new science, the science of ideas, which he called "Ideology". This

science had as its object the establishment of the origin of ideas, and to achieve this, metaphysical and religious prejudices must be set aside. Therefore, he concluded that scientific progress is possible only if false ideas can be avoided.

Like the knowledge of any other aspect of nature, the science of ideas, based upon observations and free of prejudices, was considered the basis for education and the moral order. In this, its original sense, the term "ideology" had a positive connotation: it was the rigorous science of ideas which, by overcoming religious and metaphysical prejudices, may serve as a new basis for public education (Larrain, 1979, p.27). At this stage, ideology was seen as a science which could safeguard human beings' understanding from prejudice and enable scientists to arrive at the truth. Nevertheless, Napoleon Bonaparte (1769-1821) criticised de Tracy's school as "mere" ideologists who had little knowledge of the practical world (Walter, 1827). This negative concept of ideology, as something impractical and doctrinaire, became current and is still widely held today (Eagleton, 1994).

Following the French Enlightenment, many social philosophers made remarkable contributions to the explanation of ideology. For instance, from Marx's point of view, ideologies are systems of misleading ideas about the nature of man and society (1887). Marx's conception of ideology as "false consciousness" leads back to the problem of establishing the true consciousness which will enable men to understand their genuine social role. For Marx, ideology arises from a "limited material mode of activity" which produces both contradictory relations and, as a consequence, distorted representations about them; thus it unites in one phenomenon consciousness and reality. Ideology cannot be dissolved by mental criticism, but only by the practical overthrow of the actual relations which gave rise to it. Revolutionary practice is the only way to overcome ideology at its roots by solving the "real" contradictions inherent in social relations (Larrain, 1979, p.47).

Similar to Marx's idea of ideology, Habermas (1972) argues that "ideology has nothing in common with the hopelessly shallow liberal notion in which it is seen merely as bad science or as the corrupted exaggeration of political rhetoric." (p.31). Ideology is concerned with the question of distorted communication, where the validity of understandings cannot be properly questioned because of the systematic exclusion of certain validity claims from the process of rational argumentation. Thompson (1986) argues that more recent Marxist theory rejects the narrow definition of ideology which restricts it to certain beliefs that are false or mystified, or to the narrow sense of certain sorts of intellectual doctrinal systems. According to Therborn (1980),

"Ideologies are social phenomena of a discursive kind, including both everyday notions and 'experience', and elaborate intellectual doctrines; both the 'consciousness' of social actors and the institutionalised thought-systems and discourses of a given society. This is very close to the sociological definition of culture." (p.142)

However, Therborn (1980) defines culture as "the ensemble of everyday activities and ideologies of a particular group or class, or as a more general inclusive concept for ideology, science and art, and possibly other practices studied from the point of view of their production of meaning." (p.150). Eagleton (1994) suggests that:

"Theories of ideology are, among other things, attempts to explain why it is that men and women come to hold certain views; and to this extent they examine the relation between thought and social reality. However that relation is conceived - as reflection or contradiction, correspondence or dislocation, inversion or imaginary construction - these theories assume that there are specific historical reasons why people come to feel, reason, desire and imagine as they do. It may be because they are in the grip of embattled sectional interests, or because they are hoodwinked by the false forms in which the social world presents itself, or because a screen of fantasy interposes itself between that world and themselves." (Eagleton, 1994, p.15)

Larrain (1979) argues that:

"Ideology is perhaps one of the most equivocal and elusive concepts one can find in the social sciences. Not only because of the variety of theoretical approaches which assign different meanings and functions to it, but also because it is a concept heavily charged with political connotations." (p.13)

6.3. A Typology of Ideology.

In an attempt to pin down the concept, several wide-ranging reviews of ideology have been conducted (e.g. Eagleton, 1990). In the systems domain, Oliga (1991) classifies nine different conceptions of ideology (Figure 6.1) according to three questions. These are:

1. Is ideology generated from "naturalistic" or "historical" phenomena?

From the naturalistic point of view, ideology is rooted in human nature and/or based on the individual's psychical structure. It is in the innate predisposition of the human mind and the nonlogical preconceptions inherent in the human intellect, or in conscious impulses, instincts, and human passions and desires. This view tends to believe that human beings' ideology is a mystery and cannot be explained through logical description. In contrast, the historical view of ideology regards ideology as produced and reproduced through human practice. From this point of view, ideology reflects the historical development of man's social relations; it is a social phenomenon and changes with the character of the society in which it is produced and reproduced.

2. Is ideology mainly a product of subjective (individual or collective) and psychological factors, a product of objective factors, or a joint product of both?

Oliga (1991) indicates that subjectivist ideas of ideology focus on the individual's conscious role in constructing a particular view of external reality. This means that it is the subject (be it individuals, classes, or political parties) who play the decisive role in the production of ideology. However, in the objectivist conception, the external reality (social structure) is the source of all ideological consciousness. Finally, the dialectical conception views ideology as the product of an interaction between consciousness and external reality, each of which nevertheless remains distinct.

3. Is the cognitive validity of ideology seen in essentially positive, negative, or contingent terms?

Larrain (1979, p.14) argues that ideology can be seen from two perspectives: in negative terms, as a critical concept which means a form of false consciousness or necessary deception which somehow distorts people's understanding of social reality; or in positive terms as the expression of the world view of a class, so one can talk of "ideologies" as the opinions, theories and attitudes formed within a class in order to defend and promote its interests. From the contingent point of view (Oliga, 1991), whether an ideology is seen as positive or negative depends on judgements concerning its social origin.

The three questions can be answered positively or negatively in nine permutations, guiding Oliga (1991) to define nine categories of ideology (Figure 6.1).

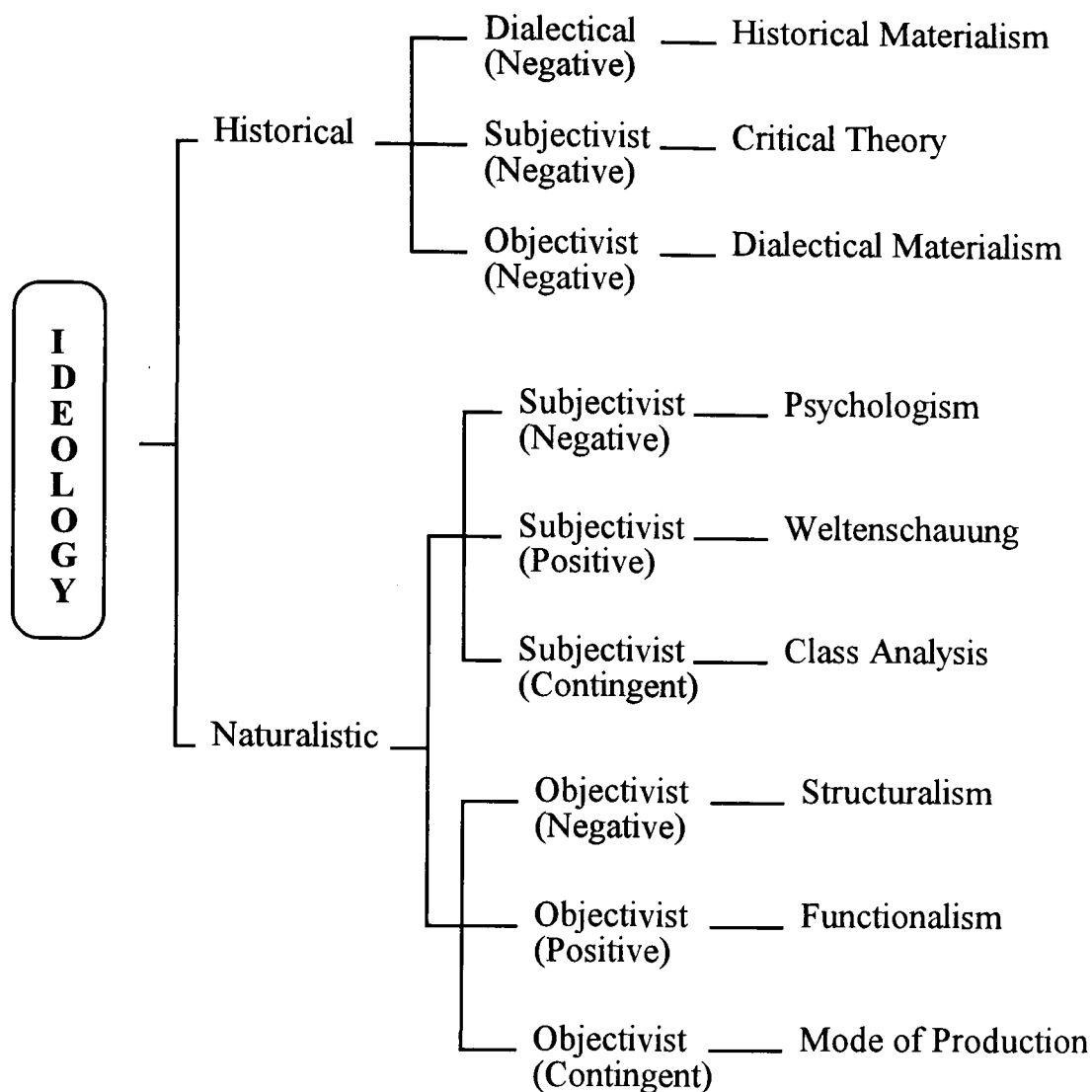


Figure 6.1. Concepts of Ideology
(source: Oliga, 1991, p.103)

The nine conceptions represent different ways of seeing how ideology is formed and generated. It is now possible to take these nine categories and ask if any of them can be used to define ideology for this thesis. We can first of all set aside the six naturalistic definitions on Oliga's (1996) grounds that they all treat ideology as an essence of human nature, but ignore the interaction between individual and society. Moving on to the three historical viewpoints of ideology, we see that the subjectivist stance ignores the structural creation of ideology, and the objectivist stance ignores the ability of individual people to choose between ideological viewpoints. Only the dialectical stance proposes a relationship between the social and individual levels (Oliga, 1996):

"Ideologies operate as discourse, interpellating (addressing) individuals as human subjects. This involves a simultaneous process of subjection and qualification. Subjection refers to the individual's subjugation to a particular force or social order that favours or disfavors certain values and beliefs. Qualification, on the other hand, refers to the enabling of an individual to take up and perform the repertoires of roles given in society." (Olga, 1996, p.172)

From my point of view, ideology can be seen as "a set of beliefs" generated from previous learning experiences at the individual level and historical development at the social level, with dialectical interaction occurring between the two levels. Olga (1996) argues that it is Marx's historical materialism that embodies the dialectical view. However, I wish to suggest that there are other dialectical theories of ideology, most notably that proposed by Mannheim (1936), that do not share the view expressed by Marx that ideology is necessarily negative (false consciousness).

Mannheim's (1936) idea of ideology is that it is a historical product which is based on particular interests or concerns in society. For Mannheim, ideology exists at two levels simultaneously: at the social level as a major prevalent belief and at an individual level as personal awareness. It can be seen as a general world view concerning the political society of human relations that is either supported or contradicted at the level of the individual's personal ideology.

Mannheim (1936) also indicates that individuals hold a particular position from which to interpret the facts, according to their needs at the time. Our minds are so constituted that if an element of the facts runs counter to our requirements we will ignore it. However, Mannheim argues that ideology is not merely a psychological (naturalistic) phenomenon. Rather, all human knowledge is socially conditioned.

"A modern theory of knowledge which takes account of relational as distinct from the merely relative character of all historical knowledge must start with the assumption that there are spheres of thought in which it is impossible to conceive of absolute truth existing independently of the values and position of the subject and unrelated to the social context." (Mannheim, 1936, p.63)

Mannheim makes a great deal of the fact that in every period in human history there exist "representative" ideas: ideas which express the prevailing social climate. We are all bound to the climate of our times in an unavoidable way. Mannheim expanded Hegel's historical approach into a relativist view of all our thinking which sees our thinking as true only with respect to the time and circumstances within which it is found. Mannheim emphasised that all historical knowledge is relational knowledge. The person who analyses ideologies cannot escape from the historical basis of his or her own thinking.

"Once we recognise that all historical knowledge is relational knowledge, and can only be formulated with reference to the position of the observer, we are faced, once more, with the task of discriminating between what is true and what is false in such knowledge." (Mannheim, 1936, p.63)

He also stresses that we need not regard it as a source of error that all thought is so rooted. Clearly, our knowledge is limited because of the prevailing social climate. However, in analysing ideology, the analyst should seek to avoid making value judgements and to present the social context in which a particular system of ideas and doctrines arises in as clear a light as possible:

"The task of a study of ideology, which tries to be free from value-judgement, is to understand the narrowness of each individual point of view and the interplay between these distinctive attitudes in the total social process." (Mannheim, 1936, p.64)

We need not agree with Mannheim that it is possible to be free from value judgements in order to accept his basic point that we can discuss the limitations of individual points of view, and how they have come to be socially constructed. Indeed, more insight can be gained by accepting that researchers are also steeped in ideology, but that it is possible to self-reflect on this (Gregory, 1992).

6.4. The Need for Ideology Critique.

Mannheim's (1936) account of ideology makes clear that it is an inescapable phenomenon. How then can one sort out what is to be regarded as "true" from what is to be regarded as "false"? When one analyses social life, the values determining the categorical structure of consciousness give it a biased character. In other words, "by making this consciousness abstract, one implicitly forms an ideology rather than a positive science." (Goldmann, 1981, p.152) Nonetheless, this should not lead the analyst to give up obtaining knowledge. We know the conclusions we come to are limited by our own social and historical horizons. We must be satisfied that what we know is knowledge for a particular period of time. It may well cease to be relevant when society changes, and this will present the sociology of knowledge with a new task.

"Knowledge appears to the sociologist of knowledge as an ever-recurring challenge rather than a number of fixed conclusions which are valid for all time. We have to learn to think 'dynamically and relationally'..." (Howard, 1988, p.28)

Howard (1988) concludes that "social knowledge is always hemmed in by the ideology dimension but never completely stifled by it" (p.117). Burrell and Morgan (1979) point out that scientific knowledge is fragmented and contradictory. There is no single homogenous body of scientific knowledge. Moreover, science can no longer validate its claims epistemologically; if scientific knowledge claims are derived from beliefs

about the nature of the world held by scientists, then knowledge has to be validated ideologically. This means being critical of ideology which is given in our current understandings of social circumstances in order to make ideological choice. In particular (in relation to the subject of this thesis), systems thinkers or practitioners engaged in methodology evaluation have to analyse and criticise the status of relevant ideologies such as that held by the methodology-user; the ideology implicit in the methodology itself; and other dominant and suppressed social ideologies. Referring to methodologies, Galtung (1977) argues that:

"There is no such thing as a general, universal methodology... To work with any methodology, hence, is a political act....the choice of a methodology is implicitly the choice of an ideology, including the mystifying, monotheistic ideology that there is but one methodology - the universal one. To the extent that we are conscious the choice is for us to make, not to be made for us, and to that extent, we are free to act." (p.40)

Billing and Simons (1994) indicate that, at one time, ideology critique claimed to reveal a hidden truth about the nature of ideas, disposing of false consciousness. However they point out that, for liberal thinkers, it should be broadened into a general sociology of knowledge, which should explain the structuring of knowledge in all forms of society. This broadening of ideology critique cuts back on itself: the sociology of knowledge needs to explain its own ideological origins and biases:

"Every claim to truth is immediately placed under suspicion. In these circumstances, one must ask whether it is possible for ideology critique to perform its task of exposing ideological illusions, in the hope of emancipating those who are enslaved by those illusions. Or is this hope yet another illusion?" (Billing and Simons, 1994, p.1)

Once again I must reiterate that there is no "view from nowhere" (Homans, 1961). Howard (1988) puts like this:

"...what the critique of ideology offers is not a whole new world fully free from distortion and misinterpreted forms of communications, but a different horizon from which to view what we know." (p.116)

Also, Flood and Romm (1995a) argue that

"ideology-critique can be a way of considering the processes of knowledge-creation that may be regarded as allowing maximum inventiveness for people to think and live alternative relationships to 'the world' (while not thereby threatening the rights of others to a viewpoint)." (p.2)

Flood (1990a) indicates that "most systems practice is based on largely non-reflective theories, where ideological dishonesty is shown toward those captured in a problem situation." (p.213). The ideological component of 'problem solving' activities is wittingly or unwittingly hushed up. With a critical approach, the ideology is necessarily and explicitly declared at the outset.

"The critical ideology relates to liberation and emancipation. A key feature of the critical approach is the nonneutral explicitly worked out relationship between ideology, theory and practice; that not only should theories be seen as agents of fundamental change in social situations, but the method of testing the truth of such theories necessitates assessing that theory is practically relevant to those changes." (Flood, 1990a, p.30)

I am not looking for true knowledge. On the contrary, it is necessary that (as far as possible) systems thinkers acknowledge all ideologies and generate explicitly non-neutral understands of their inter-relationships. Most importantly, systems thinkers should prevent uncritical ideological domination. Flood and Romm (1995b) suggest that:

"...thinkers/actors have to be specifically aware of the way that judgements are made in the process of developing 'knowledge'. Knowledge judgements often represent the outcome of the operation of political forces - in which forms of knowledge have been culturally suppressed. What becomes agreed as a best way of seeing, may easily echo dominant forms of seeing that have become dominant in society through the force of tactic rather than the force of reason. This means that appeals to consensus - even though hoping to ground this in the force of the better argument - may not constitute a defence of a judgement made." (p.474)

To summarise, from a critical point of view, ideology needs to be criticised and tested. Ideology-critique is possible because individuals can choose between ideological positions, but this does not mean that individuals can ever have a true picture of reality. Critique of one ideology is only possible from within another ideological position. This allows ideologies to grow and change, but does not allow individuals to escape them. Thus, for researchers, the procedure to understand ideological influence is to take the researcher's own ideology and other social ideologies into account in analyses. In Chapter 5, I briefly presented Gregory's (1992) Critical Appreciation Model, which includes an element of ideology-critique. This element will now be looked at in more detail, as it makes clear how non-neutral ideology-critique can be practised.

6.5. A Model for Ideology-Critique.

Gregory (1992) argues that "ideology cannot be radically transformed only by a material change in reality itself." (p.248) In this she makes a realist assumption (realism being the belief in a world that exists independently of human knowledge of it), yet she also says that our reality is inter-subjectively and subjectively understood. In other words, despite the existence of a real world, we can only know our interpreters of it, not the thing itself. Therefore the focus of ideology-critique is on interpreters

(individuals and groups), their ideologies, and the interpreted material conditions that are said to sustain those ideologies. Gregory says that:

"Ideologies operate 'behind the backs' of individual social actors. Ideology-critique enables those actors to be enlightened about their situation. The process of ideology-critique will enable them to understand their historical embeddedness, and thereby to identify their own means for achieving emancipation. Moreover, ideology-critique serves to produce new belief systems, new ideologies, and as such must be subjected to an evaluation." (1992, p.289)

Gregory (1992) proposes a theory of ideology-critique, according to which ideologies should be tested by observation, communication and self-reflection. The following six steps detail what should be done in the process of ideology-critique.

1. Third party observation - collecting empirical data about the problem-situation, especially about the target-group's openness and readiness for an ideology-critique, and about the historical conditions leading to the current situation;
2. Consultation, ascertaining the target-group's and others' views about the manifest history of the problem-situation, reaffirming the group's current dissatisfaction and possibilities for improvement;
3. Reflection on the history of the problem situation, including free-association and other forms of creativity; other psychodynamic methods aimed at enabling participants and critics to gain new insights; "debate" with other social theorists to gain alternative interpretations;
4. Empirical observations and hermeneutic interpretations about the researcher's own ideology, context, and history; incorporation of other researchers' theoretical arguments as appropriate;
5. Reflection on the possible sources of distortion or illegitimate power-relations, and their meanings; also about the researcher's ethics of disclosure and other moral issues; development of a theory about the target group's false consciousness; development of theories explaining the mechanisms of social (re)creation; reconstruction of an anticipated state or societal form;

6. The emerging emancipation of participants through the enlightening process, and through the action of the target group. (Gregory, 1992, p.301-304)

Gregory's model shows that ideology-critique needs to reveal researchers' presuppositions as part of the critical process. This is because researchers are not ideologically neutral. Moreover,

"The critic of ideology would need to continuously re-evaluate and amend his or her ideology-critique in light of new evidence or observation which would be facilitated through the cyclical nature of the critical appreciation process." (Gregory, 1992, p.305)

Ideology-critique is a dynamic process which depends on the interaction among the researcher (and his or her ideology), an alien ideology and interpretations of social circumstances. It is a continuous process because the researcher and other participants can change their ideological positions through the critical process itself, necessitating renewed analysis.

For developing a methodology for methodology evaluation, it is necessary to sweep in different assumptions about a candidate methodology. Nevertheless, such assumptions are based on their underpinning ideologies. By showing how an alien ideology can be investigated, Gregory's Critical Appreciation Model provides significant guidance for me to create an (as far as possible) critically comprehensive process for evaluating methodology(ies). The Critical Appreciation Model is based on Critical Systems Thinking and embraces four meaningful means (as I have shown in Chapter 5) to investigate the candidate methodology's, surrounding society's and researcher's ideologies. It helps to highlight the role of the researcher and recognises local contextual influences, and how an alien ideology can be studied. I therefore find the Critical Appreciation Model useful as a framework to develop my methodology.

6.6. Conclusion.

In this chapter, I have argued that personal and social ideology affect both our view of reality and choice of methodology to solve problems. I have also suggested that ideology-critique is possible, but strictly objective ideology-critique cannot be achieved. Recognising this actually increases insight by making the researcher examine his or her own ideological assumptions as part of the critical process. Finally, in this chapter, I reviewed Gregory's model which argues that understanding, communicating with, or interpreting an alien ideology can only be achieved through third party observation, communication with others and researchers' self-reflection. As paradigms and their associated methodologies are ideological, I conclude that it will be necessary for a methodology for methodology evaluation to incorporate these aspects of ideology-critique.

Chapter Seven: The Stakeholders of Methodology Evaluation

Chapter Seven: The Stakeholders of Methodology Evaluation

7.1. Introduction.

The next significant question that needs to be addressed is, who should be considered as stakeholders of a methodology evaluation process? Answering this question will indicate whose views (and associated ideologies) might need to be considered when it comes to applying the methodology for methodology evaluation. The stakeholder concept "enables an organisation to identify all those other organisations and individuals who can be or are influenced by the strategies and policies of the focus organisation." (Fill, 1995, p.23). This chapter firstly discusses the nature of participation before identifying three groups (and sub-groups) of stakeholders who are involved in, or affected by, intervention, and so need to contribute their views about the candidate methodology. It then argues that the three (or more) perspectives on the candidate methodology that are provided by these stakeholders provide a more complete picture of the suitability of the candidate methodology than a methodology-user could generate without stakeholder participation.

7.2. The Nature of Participation.

Participation is an important issue in organisational problem solving because, as Churchman (1979) argues, the more perspectives that are brought to bear, the more comprehensive a view of the problem we have. There is an enormous literature on participation; e.g., Arnstein (1969), Oakley (1991) and Mumford (1993). They all emphasise different levels or types of participation.

According to Arnstein (1969), there are three types of participation citizen power, tokenism and non-participation. These three can be divided into eight levels (Figure 7.1).

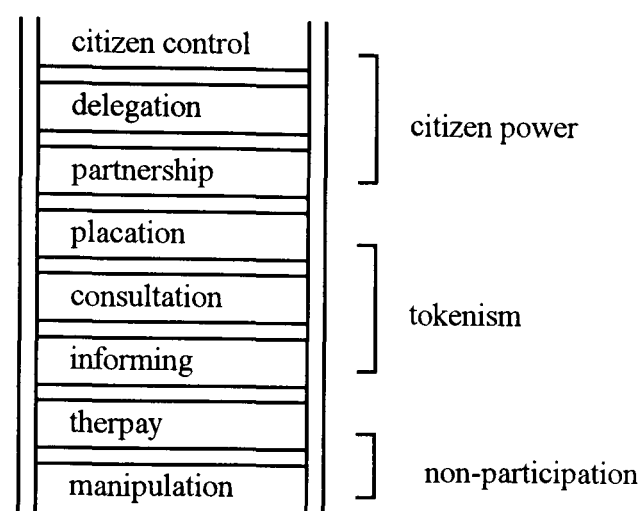


Figure 7.1. Ladder of Citizen Participation
(source: Arnstein, 1969)

At the bottom level, "manipulation" is in fact a mechanism to force participants to accept pre-set decisions. At this level, participants are not involved in decision making processes. "Therapy" is to used correct participants' behaviours in order to achieve pre-set goals. "Informing", is a one way process which can be used to disempower participants rather than empower them in debate. "Consultation" does not fully involve participants, although it does invite them to express their opinions. At the "placation" level, participants' voices are heard, but they do not have power to become involved in the decision making. "Partnership" is where sharing power with participants beings. Finally, "delegation" and "citizen control" encourage participants to take the lead in the decision making process. This is either partial, through delegation, or total, by all decisions being in the hands of participants (citizens control).

Arnstein's theory of participation shows that some levels of participation involve people participating in working procedures, but they are not invited to share ideas.

People at these levels are seen merely as tools. However, Arnstein (1969) also realises that full participation that involves everyone is not always possible; representative participation is sometime necessary and more realistic. This will depend on practical circumstances and resources available to projects.

Oakley (1991) argues that one major form of differentiation is to distinguish between participation as a *means* or an *end*. Participation as a means is to use participation to achieve some predetermined goals or objects; participation as an end is on contrary a dynamic form of participation which enables people to play an increasing role in development activities. Oakley (1991) argues that participation improves development projects in terms of efficiency, effectiveness and self-reliance. In his view, participation in a development project means understanding what the affected people need rather than what the designer desires the project to be. Thus, participants need to share different values and find the solutions through the participation process.

From Mumford's (1993) points of view, 'participation' is

"a process in which two or more parties influence each other in making plans, policies or decisions. It is restricted to decisions that have future effects on all those making the decisions or on those represented by them." (p.20)

Mumford (1993) argues that a participative approach helps people to decide their own destinies and produce organisational commitments to avoid moral and job satisfaction problems. Mumford (1993) also indicates that traditional participation is concerned with decision making processes and the representation of different interests and points of view in this process. However, Mumford (1993) places emphasis on the structure, content and process of participation. She explains these as:

1. The structure of participation is concerned with the mechanisms for enabling participation to take place such as an institutionalised political system, a formally organised vote (a referendum) etc.
2. The content of participation is the nature of the issues about which decisions are taken. It also involves a consideration of decision boundaries; that is, what subjects can be considered participatively and what subjects are outside the jurisdiction of the participative group and are seen as executive decisions which are not taken democratically.
3. The process of participation involves the acquisition of knowledge so that decisions are taken from an informed position; it involves learning, the development of effective working relationships over time, the setting and achieving of goals, and the implementation of solutions." (pp. 23-24)

Moreover, in terms of offering a typology of participative approaches, Mumford (1993) categorises three levels of participation: consultative, representative and consensus participation. The consultative approach is seen as most appropriate for securing agreement on strategic planning objectives; representative participation is seen as appropriate at the system definition stage when powerful interest groups will wish to express an opinion on where system boundaries are to be drawn and on the broad form any future system should take; consensus participation attempts to enable all the staff in a function or department to play a part in the design of a new work system.

Mumford (1993) argues that different approaches to participation may be useful depending on the social circumstances and needs.

"Participation is viewed both pragmatically and ideologically by organisations which use it, as something that helps efficiency, satisfaction and progress but which is also morally right. Participation can take many forms but at the lower levels of an organisation it is increasingly concerned with the relationship between individuals and their work environment." (p.36)

Clearly, the aim of participation is to promote the involvement of many relevant stakeholders in projects on different levels. However, it might be difficult and unrealistic to involve every relevant stakeholder in every situation. Moreover, the question can be asked whether participation is just a means to achieve predetermined goals or whether it is an end to sweep many interests into decision making/problem solving processes. This thesis is primarily concerned with the latter and intends to create a forum for various stakeholders to express their views on the evaluation of methodology(ies).

7.3. Who should be the Stakeholders in the Methodology Evaluation Process?

In gambling, a stakeholder is someone who has a stake in the game. However, in management, the term is used to mean those people who are affected by an organisation's achievements or purposes (Freeman, 1984). Ackoff (1981) says that "stakeholders are all those inside or outside an organisation who are directly affected by what it does." (p.30). Obviously, such a definition pushes the boundary out beyond the managers that are usually the focus of organisational intervention.

"...it is important to take into account the results of their decisions on all those who are directly affected by them.The stakeholders are usually taken to include at least a corporation's shareholders, creditors, debtors, employees, customers, and suppliers, the government, and the public." (Ackoff, 1988, p.32)

Stakeholders should be regarded as people (and even non-human elements of the environment) who are directly or indirectly affected by an organisation's changes. Ackoff (1988) argues that, for logistical reasons, it is not possible to have all stakeholders participate in organisational decision making, particularly environmental stakeholders who may be diverse. Yet environmental elements are affected by an

organisation's decisions (Huczynski and Buchanan, 1985). So, for the purposes of methodology evaluation, it will be necessary to find ways to represent environmental viewpoints, however imperfectly.

This thesis argues that there are essentially three types of stakeholder which need to be taken into account: methodology-users; the candidate methodology; and organisational/environmental stakeholders. These three stakeholder groups are directly or indirectly affected by intervention. First, methodology-users are involved in the intervention, but are often ignored because they are regarded as having a neutral role. This thesis highlights the role of methodology-users and argues that their role is not neutral because they may introduce their own ideology through the intervention, and are affected by the success or failure of it (Flood and Jackson, 1991a). Here, I should define what I mean by methodology-users. Methodology-users are the people who operate the methodology. They could be, for example, consultants, managers, researchers, or employees working co-operatively together. Secondly, there are organisational and environmental stakeholders who are actually affected by methodology intervention, but may or may not be involved, such as employees, suppliers, local residents, etc. The third stakeholder category is the candidate methodology, which is usually used as a taken for granted base. However, given that methodologies are based in paradigms, and paradigms are ideological, it is important to examine the ideological assumptions that the methodology may import into the organisation. It may be stretching the definition of "stakeholder" to include the methodology itself, but in fact the methodology (and its creator) may be affected by any publicity that follows from its application.

Note that these three groups of stakeholders of methodology evaluation reflect the argument in Chapters 5 and 6 that, to understand an alien paradigm, it is necessary to study the target paradigm, the researcher's paradigm, and interpretations of the

prevailing social circumstances. In the following sections, I will discuss details of each stakeholder category in turn.

7.4. The Role of Methodology-users in Methodology Evaluation.

Methodology-users play an important role in choosing and operating a methodology for an organisation. Very often they are professional, and use their professional knowledge to guide and facilitate an organisation's choice of an appropriate methodology, whether for problem solving or decision making (White and Taket, 1994). In this thesis, "professional knowledge" is seen as that which is accumulated through theoretical learning and practical working experience by management professionals such as managers, consultants etc. For professionals, such personal specialisation and expertise strongly affects their behaviours and actions. Indeed, as Hughes (1959) points out, professionals often claim extraordinary knowledge in matters of great social importance. It has become culturally acceptable for people to look to the professions for the definition and solution of our problems (Rose, 1990). However, Gross and Osterman (1972) argue that there are increasing signs of crisis in the professions. Professionals have often been accused of misappropriating specialised knowledge in their own interests and in the interests of a power elite intent on preserving its dominance over the rest of the society. Schon (1983) also argues that professionally designed solutions to public problems have had unanticipated consequences, sometimes worse than the problems they were designed to solve. Methodology-users are frequently embroiled in conflicts of values, goals, purposes, and interests. Unfortunately, they are not always aware of this because they tend to take for granted their experiences and professional knowledge. As Schon (1983) indicates, "as practice becomes more repetitive and routine, and as knowing-in-practice becomes increasingly tacit and spontaneous, the practitioner may miss important opportunities to think about what he is doing." (p.57). Schon also acknowledges that

the growth of tacit and spontaneous knowledge may lead to a parochial narrowness of vision. It is therefore important for methodology-users to reflect on their understanding and behaviours.

"A practitioner's reflection can serve as a corrective to over-learning. Through reflection, he can surface and criticise the tacit understandings that have grown up around the repetitive experiences of a specialised practice, and can make new sense of the situations of uncertainty or uniqueness which he may allow himself to experience." (Schon, 1983, p.61)

A new way to view methodology-users would be not so much as experts, but more as interpreters. It would recognise any project of interpretation as something that can be carried out collaboratively (White and Taket, 1994). The interpreter sketches out opinions and takes part in the debate, and the views of the interpreter are valuable only if the debate is personally meaningful to all involved (White and Taket, 1993, 1994). This thesis highlights the issue of expertise and suggests the need for methodology-users to reflect on how their expert knowledge and values may affect methodology evaluation and intervention. The point here is not to propose universal criteria for methodology-users' reflection, but simply to warn that methodology-users should properly understand what they have chosen for organisations and why, and (if possible) be prepared to discuss their reasoning with others.

Karlsen (1991) says that

"The involved researcher can often be so trapped by the situation and his or her own role in it that it may be difficult to get an adequate perspective on what is happening. In such case, it is an advantage to have ready-established structures that ensure that one is confronted by others and has one's own assumptions tested." (p.156)

A methodology for methodology evaluation can provide such a structure. To avoid the trap of methodology-users imposing their ideological presuppositions on others in an

uncritical manner, I suggest that methodology-users' personal values and beliefs need to be put into the methodology evaluation process. They should become aware of the similarities and the differences among various stakeholders' understandings through observation of the social circumstances, communication with others, self-reflection and ideology-critique.

7.5. The Role of Organisational and Environmental Stakeholders in Methodology Evaluation.

The next obvious group of stakeholders will be those affected by the use of a candidate methodology if it passes the evaluation process and is implemented. However, one cannot take for granted that this is simply a group of managers, or those within an organisation. As mentioned earlier, it could include people in the environment of the organisation (e.g., suppliers, customers, local residents etc.). Indeed, it may also include non-human aspects of the environment (which will obviously have to be represented in debate by human beings). There is no way, outside the context of a particular methodology evaluation, to say what specific categories of organisational and environmental stakeholders there might be. However, the two general types of stakeholder will be discussed separately below:

7.5.1. Organisational Stakeholders.

When we talk about organisational stakeholders, we mean people who participate within the organisation. Chell (1985) describes organisational participation as follows:

“Participation is a pervasive aspect of organisational life. People take part in committees, meetings, group discussions; they work together, collaborate, confer, take decisions, influence others and disseminate ideas and information.” (p.257)

Organisational participants can be clearly understood as those actually involved in problem solving or decision making processes, such as managers and employees. However, not all organisational stakeholders have equal opportunities in dealing with organisational issues. An organisation might be dominated by one or more groups that have particular ideas about how the organisation should be operated. This unequal power structure leads organisational stakeholders to follow certain patterns in dealing with organisational issues. Such patterns can also be described as organisational cultures, a culture being "the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration." (Schein, 1985, p.15). Those patterns can also be seen as "organisational ideology" (as described in Chapter 6). Such ideologies may be based upon "strong widely-shared core values" (O'Reilly, 1983, p.1), or they may have become the driving force of an organisation against the wishes of the majority of participants. The organisation uses these patterns or ideologies as a basic framework to view and interpret a candidate methodology. The organisational stakeholders need to be involved so that they can express their views on the candidate methodology based on their own assumptions, whether or not these accord with the dominant organisational ideology.

7.5.2. Environmental Stakeholders.

Unlike those within organisations who participate in decision making, environmental stakeholders are usually considered to be indirect stakeholders. They are affected by organisational decisions and changes without being directly involved (Moorhead and Griffin, 1995). To understand organisational behaviour, one must understand how the organisation relates to other social actors and its environment (Pfeffer and Salancik, 1978): the "organisational environment, and particularly environmental turbulence and uncertainty, is used as an arguing point by those wishing to promulgate their advocacy

of participation." (p.146). Likewise, Midgley (1992b) argues that it is inadequate only to sample organisational stakeholders' viewpoints,

"Since placing boundaries around a problem within which critique is to be conducted automatically 'hides' aspects affecting it that have been defined as lying outside the scope of research, we inevitably have an incomplete view of the situation." (p.5)

This not to say that we can ever have a truly complete view, but the wider we look, the more comprehensive our understanding becomes (Churchman, 1979b). Other systems writers have talked about environmental stakeholders too. Ulrich (1993) uses the term "problem environment" to refer to all those factors which "influence the outcome of a design but are not controlled by the designers and decision makers involved." (p.584). Jaros and Dostal (1995) argue that the major challenge for organisations is to satisfy the divergent needs of their stakeholders, in particular environmental stakeholders. Thus, sampling viewpoints on the interaction between the organisation and its environment is vitally important.

In Ulrich's (1983, 1987) view, a key problem for a critical systems approach is that of developing a dialectical discourse between those who are involved in producing a systems design and those who are affected but not involved. However, it is obviously not possible to involve every citizen of the world. Thus, a system boundary needs to be determined in order to make critique meaningful. The difference between organisational and environmental stakeholders relies on the setting of two kinds of boundary: a "primary" boundary around organisational participants, and a "secondary" boundary defining stakeholders in the environment. The setting of boundaries is tied up with value judgements (and hence ideologies):

"...the boundaries of accepted knowledge define the values that can emerge. Similarly, the values adopted will direct the drawing of boundaries that define the knowledge accepted as pertinent." (Midgley, 1992a, p.9)

In some organisations, environmental stakeholders are marginalised and made "profane" (Midgley, 1992a). This is the result of organisational stakeholders defending a narrow ideology against challenge. In other organisations, environmental stakeholders are viewed as "sacred" (Midgley, 1992a), and their views are taken seriously. In making the case for including environmental stakeholders in methodology evaluation, I assume that the latter is a more appropriate attitude. However, this raises the issue of how to conduct evaluations when there is a tendency to dismiss alternative understandings (see Chapter 10 for some practical suggestions).

7.6. The Candidate Methodology as a Stakeholder.

If the viewpoints of the methodology-user and both organisational and environmental stakeholders are considered, it might look as if this is all that is needed. However, we have to ask whether the following scenario is acceptable. What if the methodology-user proposes a methodology that he/she has an inadequate understanding of, and the other stakeholders (who know even less about it) agree with its use? Everybody in the local situation might be happy, but the longer-term victim of such a situation might be the candidate methodology itself. If it becomes distorted in use, and this distortion is communicated to others via research papers, then

1. some of the original insights of the candidate methodology might be lost; and
2. the candidate methodology could fall victim to criticisms that should really have been aimed at its inadequate implementation rather than at the methodology itself.

Checkland (1993) claims that Soft Systems Methodology has suffered in this way. Therefore, another stakeholder (of sorts) is the candidate methodology, as represented in the original literature.

A methodology or social theory does not invent itself, but is invented by social philosopher(s). Thus, methodologies cannot help but embody the prejudgements of their creator(s). The creator(s) of methodologies view reality according to their own understanding and knowledge (ideology). However, the candidate methodology will actually be implemented by the methodology-user, and will be subject to his/her/their interpretation. This raises the issue, how do we know if the methodology is being interpreted and used according to its original design? Moreover, how can a methodology speak for itself?

The short answer is that it cannot. Therefore, in treating the methodology as a stakeholder, we actually need to ensure that an account of the methodology, based on an interpretation of the original author's work, is communicated to other stakeholders, and then their views on it can be surfaced. To moderate the bias of the methodology-user, it is preferable for the communicator to be an external researcher (although in practice this will not always be possible).

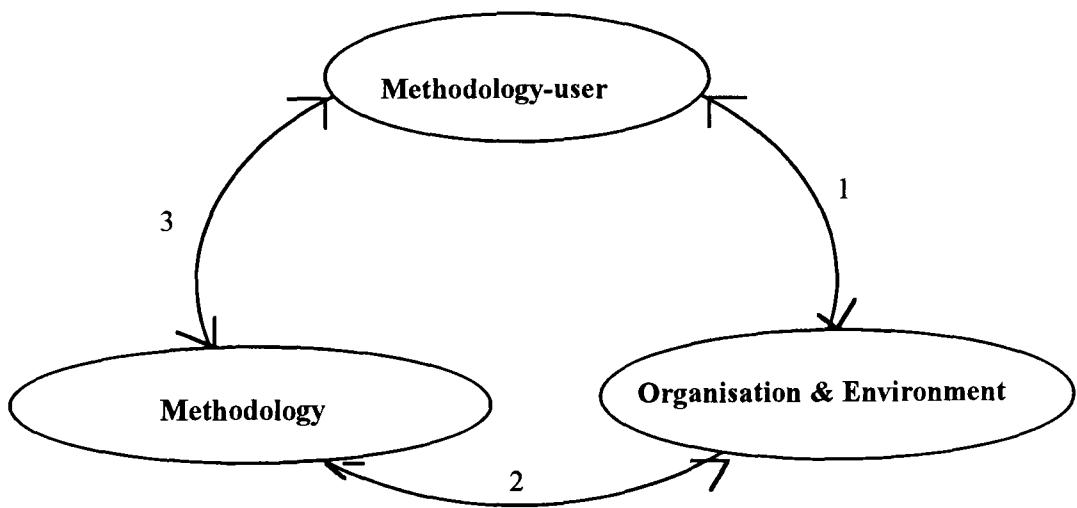
The purpose of treating the methodology as a stakeholder is not just to ensure that it is implemented according to a reasonable interpretation of the author's original work, but also to scrutinise the ideology it brings with it. As Bhola (1970) says,

"It is clear that different methodologies are different moments of theorising about social and political life. The interpretation of ideology and methodology, and of the inquirer's and the practitioner's worlds need to be understood better." (p.362)

A methodology is created according to particular meta-theoretical assumptions about social reality. By investigating the philosophy, principles and process of the candidate methodology, we can critically assess these meta-theoretical assumptions. This enhances our understanding of the methodology.

7.7. Towards Critical Understanding of Methodologies.

Each of the three types of stakeholder identified above may (or may not) have a different view of the suitability of the methodology. Indeed, there may also be differences of view within a stakeholder category - especially amongst the organisational and environmental stakeholders who can be very diverse. It is by comparing and contrasting the different views that a more critical appreciation of the methodology and its suitability for the local context may be gained. Figure 7.2 represents the three stakeholder categories and their interrelations.



- 1: Interaction between Methodology-user and Organisation
- 2: Methodology Interpretation for and by the Organisation
- 3: Methodology-user's Understanding of the Methodology

Figure 7.2. The Relationship between Three Kinds of Stakeholder

The three groups of stakeholders interpret the organisational issues and the methodology based on their own ideologies. It is then necessary to triangulate the three groups of stakeholders, encouraging them to enter into a dialectical process of debate that will be capable of promoting self-reflection and ideology-critique amongst participants. According to Gregory (1992),

"Individual's self-awareness (through critical self-reflection) coupled with sociological awareness (through ideology-critique) appears to be the most appropriate means available to today's individual who wishes to deal morally with the pluralistic environment confronting him or her." (p.355)

Nevertheless, it will be difficult for each individual or group to carry out self-reflection and ideology-critique alone. The presence of a facilitator is usually necessary to promote questioning (Horney, 1962). Therefore, in order to improve mutual understanding and communication, I suggest that, wherever possible, an external researcher should be used. The reason for bringing an external researcher in to conduct the evaluation is not only because he/she can speak for the candidate methodology, but also because he/she can use his/her facilitation skills to enhance critical understanding amongst the various groups of stakeholders. Of course, it will not always be possible to involve an external researcher, and where participants in the evaluation need to facilitate the process themselves, an alternative is to appoint somebody (preferably not a power owner) to act as Chair/facilitator.

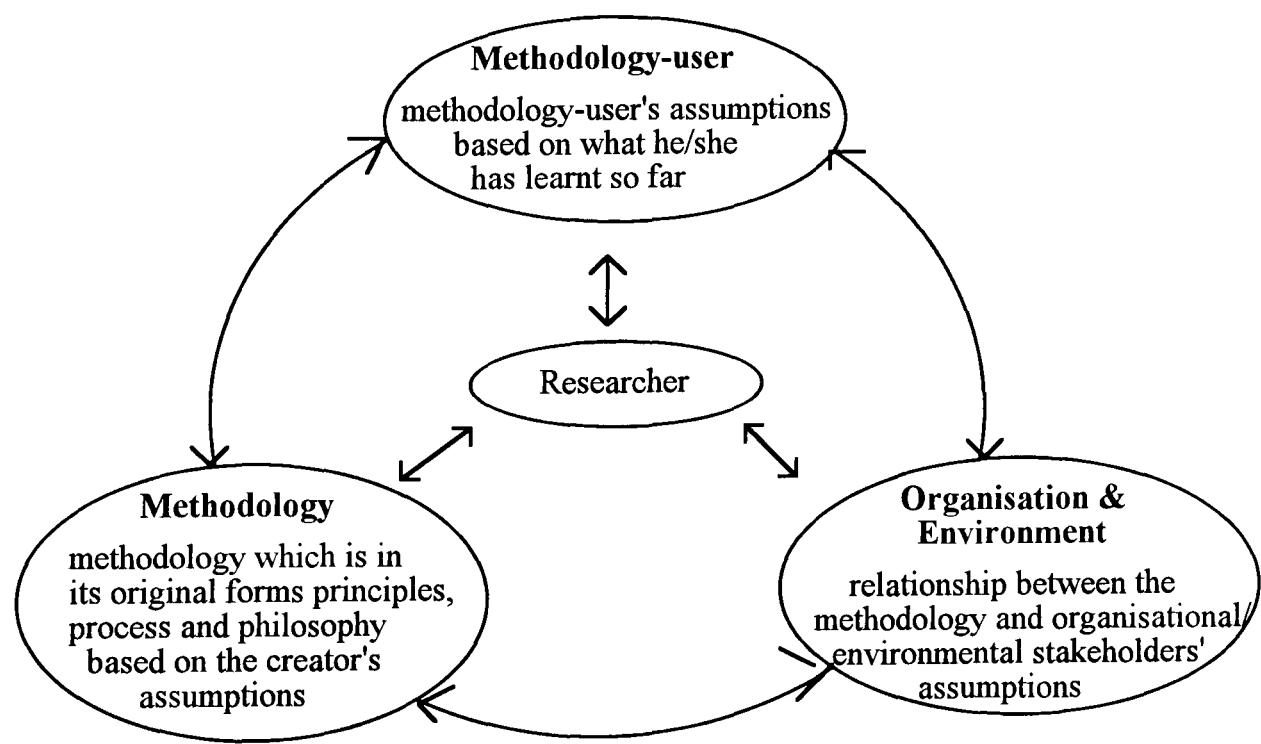


Figure 7.3. The Relationship between Researcher and Three Aspects of Knowledge

Figure 7.3 shows that the researcher is a facilitator who supports the process of comparing contrasting and integrating information from the various stakeholder groups. This process is dialectical in the sense that different stakeholder assumptions about the methodology can be compared, contrasted and tested. As Bartunek and Reid (1992) say,

"Dialectical interaction involves a kind of negotiation between holders of different perspectives that is aimed not at compromise between them or victory of one perspective over the other but at the development of a new shared understanding that transcends either of the original perspectives." (p.119)

Gregory (1992) also puts it like this:

"One cannot predict that a particular norm or value will 'win out' in the end, but the possibility of getting people to talk and think critically..." (p. 370)

7.8. Conclusion.

This chapter has shown that the views of three kinds of stakeholder need to be considered: the methodology-user, the methodology itself and organisational/environmental stakeholders. A methodology cannot be adequately understood by means of one perspective alone. Once the various stakeholder views have been surfaced, they need to be triangulated through a dialectical process so that stakeholders can improve mutual understanding and enhance their learning about the candidate methodology and its potential effects. In the next chapter, these basic ideas about who should be considered as the stakeholders of methodology evaluation, and how they should communicate, will be built upon, and the methodology of Participative Methodology Evaluation (PME) will be presented.

Chapter Eight: A Methodology for Methodology Evaluation

Chapter Eight: A Methodology for Methodology Evaluation

8.1. Introduction.

Having reviewed some key assumptions concerning the need for ideology-critique, and the importance of considering the perspectives of the methodology-user, the candidate methodology and both organisational and environmental stakeholders, it is now possible to draw these assumptions together to create a new methodology for methodology evaluation. This is to be called Participative Methodology Evaluation (PME), and it provides a framework to review and evaluate the suitability of a candidate methodology for intervention in a particular social circumstance. PME provides a learning process which allows participants, and particularly methodology-users, to recognise and appreciate other world views.

This chapter aims to introduce the main ideas in PME, which is a methodology in the sense defined by Midgley (1995c, 1997b). Midgley clearly distinguishes between method and methodology, saying that the former means "a series of techniques applied to some end", while the latter is "a theory of research practice that explains why particular method(s) should or should not be considered valid or appropriate for given circumstances." A methodology is a set of underlying value-judgements which guide methodology-users to choose a set of methods to gain understanding and knowledge, or to solve social problems. Methods are organised by methodological assumptions and beliefs. Detail of possible methods to operationalise PME will be presented in Chapter 10.

8.2. Participative Methodology Evaluation (PME).

PME argues, following Flood and Romm (1995b), that "each choice (methodology, theory) can be made only using locally generated criteria informed by wider considerations." (p.473). Thus, there can be no universal standard for reviewing, evaluating and choosing a methodology. It is therefore vital that we do not seek to judge a methodology from only one single perspective (for instance, that of the creator of the methodology, or the methodology-user) and assume that this perspective is the truth. The need to explore multiple perspectives has already been discussed at length in Chapter 7.

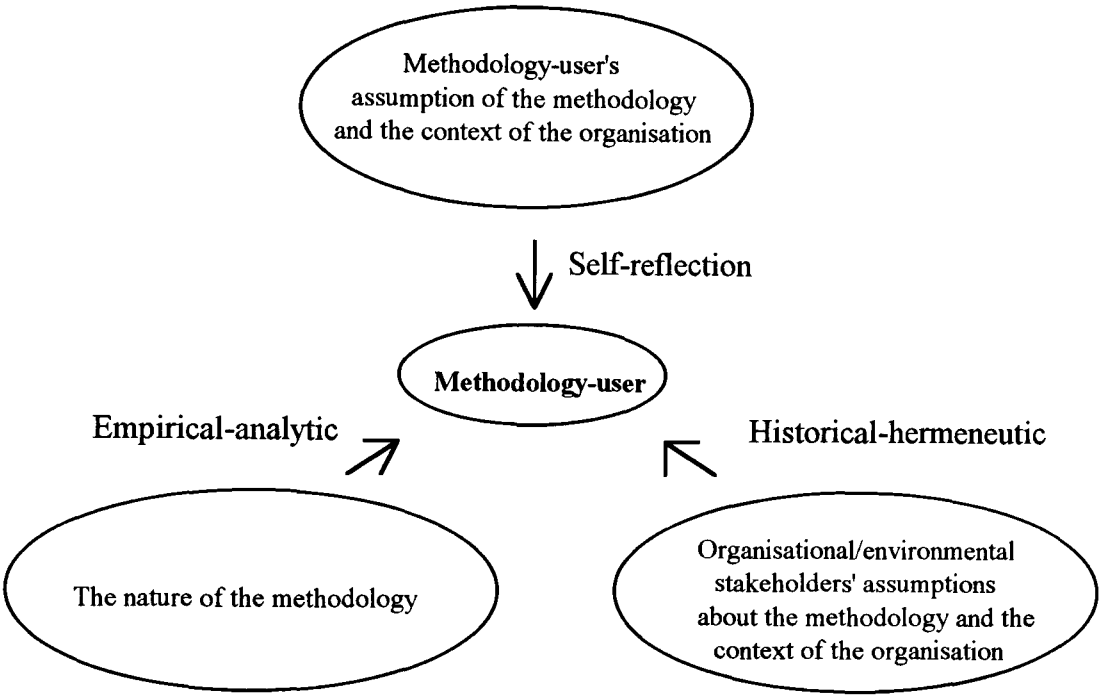


Figure 8.1. Three Types of Method to Understand Three Types of Knowledge

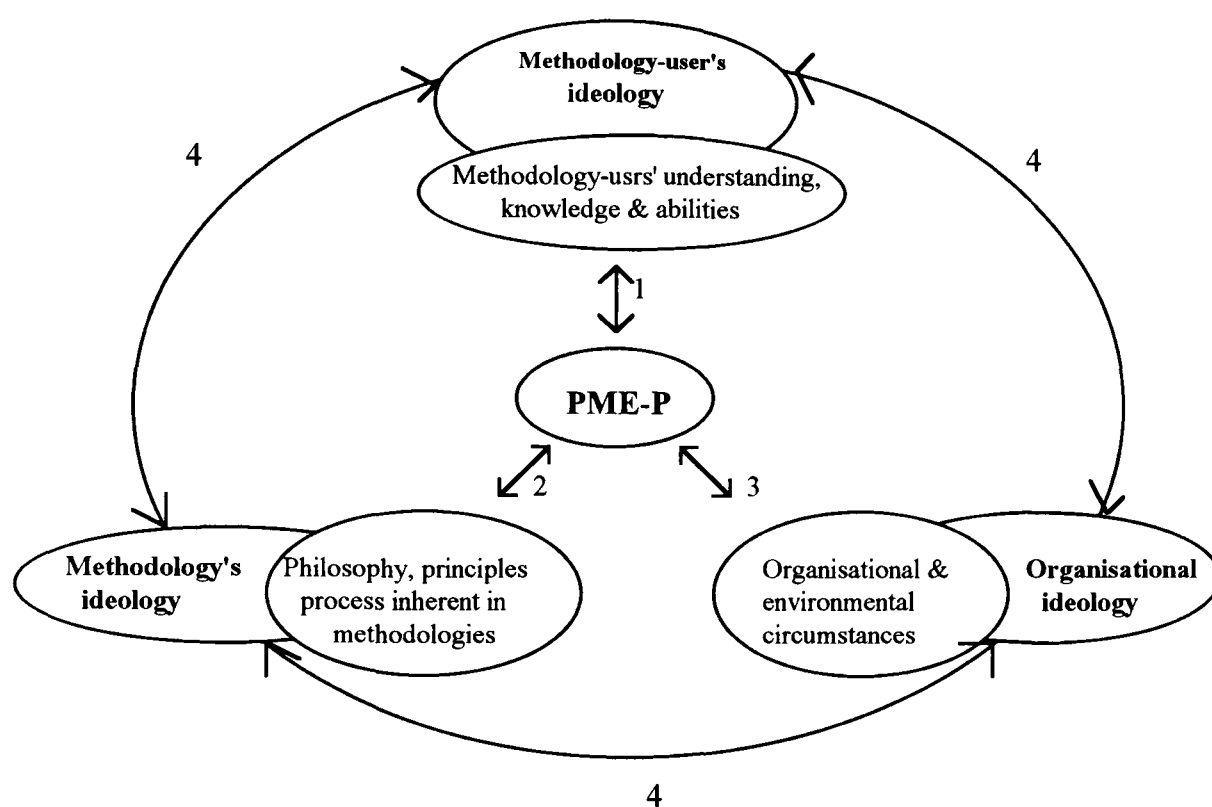
Having said that it is important to explore multiple perspectives, it is nevertheless the case that the methodology-user plays a pivotal role - at least as important as that of the external researcher/facilitator (who will from now on be called the PME-practitioner). This explanation of PME will therefore start with an examination of how PME may be used to develop the methodology-user's understanding. Building on the stakeholder

analysis presented in Chapter 7, Figure 8.1 shows that the methodology-user's understanding of a methodology is influenced in PME by knowledge derived from the three categories of stakeholder: the candidate methodology, the methodology-user him or herself, and the organisational/environmental participants. Gregory's (1992) three methods supporting ideology-critique are all used to gather that knowledge. Each method is appropriate to a different stakeholder category. These are explored further below.

- *The nature of the candidate methodology.* Knowledge about this can primarily be obtained by reviewing the literature on the methodology, exposing its philosophy, principles and processes (in Gregory's terms, empirical-analytic study). Such research provides methodology-users with their own understanding, of the original version of the candidate methodology, ensuring a degree of freedom from rumour and secondary misinterpretation. The creator's meta-theoretical assumptions about society should be revealed, and it should be shown "how" and "why" the methodology envisages intervention in the way it does, according to its immediate and given purposes (Flood and Romm, 1995a). The methodology-user's learning may be mediated by the PME-practitioner's research into the nature of the candidate methodology.
- *Organisational and environmental interpretations of the candidate methodology and understanding of the context of the organisation.* These understandings might differ among participants, and knowledge about them can primarily be derived from communication with organisational and environmental stakeholders (in Gregory's terms, historical-hermeneutic inquiry). This communication may be direct, and/or mediated by the PME-practitioner.

- *The methodology-user's assumptions about the candidate methodology and the organisation.* Knowledge about these is surfaced through the methodology-user's self-reflection, usually in dialogue with the PME-practitioner. This is seeing things through the eyes of the methodology-user.

Let us now switch to placing the PME-practitioner at the centre of the PME process. Figure 8.2 illustrates the PME-practitioner's role as a facilitator of ideology-critique.



PME-P: PME-practitioner

1: Critical self-reflection as Part of Ideology Inquiry

2: Empirical-analytic as Part of Ideology Inquiry

3: Historical-hermeneutic as Part of Ideology Inquiry

4: Comparison of Ideologies

Figure 8.2. Methodology Evaluation through Ideology-critique

The basic idea in PME is to consider the three perspectives (and sub-perspectives) already mentioned, revealing the ideological assumptions that are present in each case,

and considering the harmony, or lack of it, among them, to evaluate whether application of the candidate methodology is appropriate. It means looking at current assumptions, but also participating in a process which may (or may not) lead to the *creation* of harmonious understandings. Thus, the methodology-user and organisational/environmental stakeholders may learn more about the methodology; the methodology-user may learn more about the organisation; and the organisational/environmental stakeholders may learn more about each other and the methodology-user. We see (in Figure 8.2) that the methodology, portrayed in this way, still embodies Gregory's (1992) insight that critical self-reflection, empirical-analytic and historical-hermeneutic inquiry are all necessary parts of ideology-critique.

1. *Critical-reflection*: Critical-reflection is about encouraging a methodology-user to reveal his/her understandings and assumptions and consider their legitimacy in the light of possible alternatives. Obviously, the methodology-user plays a key role in the intervention. Since he/she cannot be neutral in the review process, his/her interpretation is inevitably ideological (Flood and Romm, 1996b; Midgley, 1996). The PME-practitioner helps the methodology-user to self-reflect.
2. *Empirical-analytic inquiry*: This is used to grasp the nature of a candidate methodology in terms of its philosophy, principles and process. At this stage, the PME-practitioner should be concerned with the candidate methodology's meta-theoretical assumptions and its working methods. In particular, the PME-practitioner has to reveal the candidate methodology's assumptions about what an organisation should be like (its ideal model of organisation).
3. *Historical-hermeneutic inquiry*: This is to "seek to access meaning and to gain an understanding of the creation of the intersubjective life world." (Jackson, 1991b, p.13). The PME-practitioner helps organisational/environmental stakeholders

participate in debate, and supports them in reflecting on their understandings of the candidate methodology and the context of the organisation.

4. *Comparison of ideologies*: Each stakeholder groups provides knowledge which can be seen as only partly valid, and is formed depending on the interaction between the stakeholder group, the organisation and its socio-political environment. Through ideology-critique, each stakeholder's ideology is brought into dialectical debate and is challenged by others. This is to protect methodology evaluation from automatic domination by a single ideology.

8.3. Principles of PME.

PME is based on Critical Systems Thinking and (to an extent, to be clarified in Chapter 9) TSI(2) (Flood, 1995a). As we saw in Chapter 2, Critical Systems Thinking is concerned with the promotion of methodological pluralism, critical awareness and human emancipation. Methodological pluralism suggests that various methodologies should be used according to their perceived strengths and weaknesses; critical awareness requires that the suitability of a methodology be evaluated through local ideological studies; human emancipation needs to be encouraged through meaningful participation. Flood (1990a) presents a post-modern critique of universals, suggesting that absolutes should be resisted. Instead, contextualised understanding and the integration of methodologies can be more appropriate in a local context; "local" refers, in his terms, to both space and time (Flood, 1996b, 1997; Flood and Romm, 1996b). This insight is welcomed by PME. Thus, while PME emphasises the meta-theoretical assumptions flowing into each perspective (e.g. those of methodology-users, the candidate methodology, and organisational/environmental stakeholders), the understanding and interpretation of meta-theoretical assumptions is only meaningful in a local context.

The following principles need to be embodied in the PME process.

1. Meaningful, local participation and communication among the three stakeholder groups (and sub-groups) is necessary.
2. Knowledge is never perfect and sufficient.
3. People should be willing to critically reassess their assumptions in the light of new information.
4. If 3 obtains, then dialectical discussion encourages communication and enriched understanding among different stakeholders.
5. Evaluation is, in principle, a never-ending learning process.

PME argues that traditional understandings and knowledges need to be critically assessed, and stakeholders' perspectives and understandings should be taken into account in order for all participants to gain an improved awareness of their circumstances and the likely effects of implementing a candidate methodology.

8.4. Three Phases of PME.

PME involves three phases: Surfacing, Triangulation and Recommendation (see Figure 8.3). PME is uni-directional, but is a potentially continuous process. It begins with surfacing and understanding the three different stakeholder perspectives (and sub-perspectives) on the candidate methodology and the organisational context; follows by triangulating these in the local context by means of dialectical debate; and ends by suggesting some possible proposals for the organisation to decide what decisions and actions should be taken. It is a potentially continuous process because new understandings of the candidate methodology and/or the context may lead the

organisation and the methodology-user to start a new cycle of investigation. For example, the candidate methodology might be abandoned and a new one introduced, necessitating a whole new review. Of course this will not always happen, but PME allows for the possibility of as many cycles as are considered appropriate.

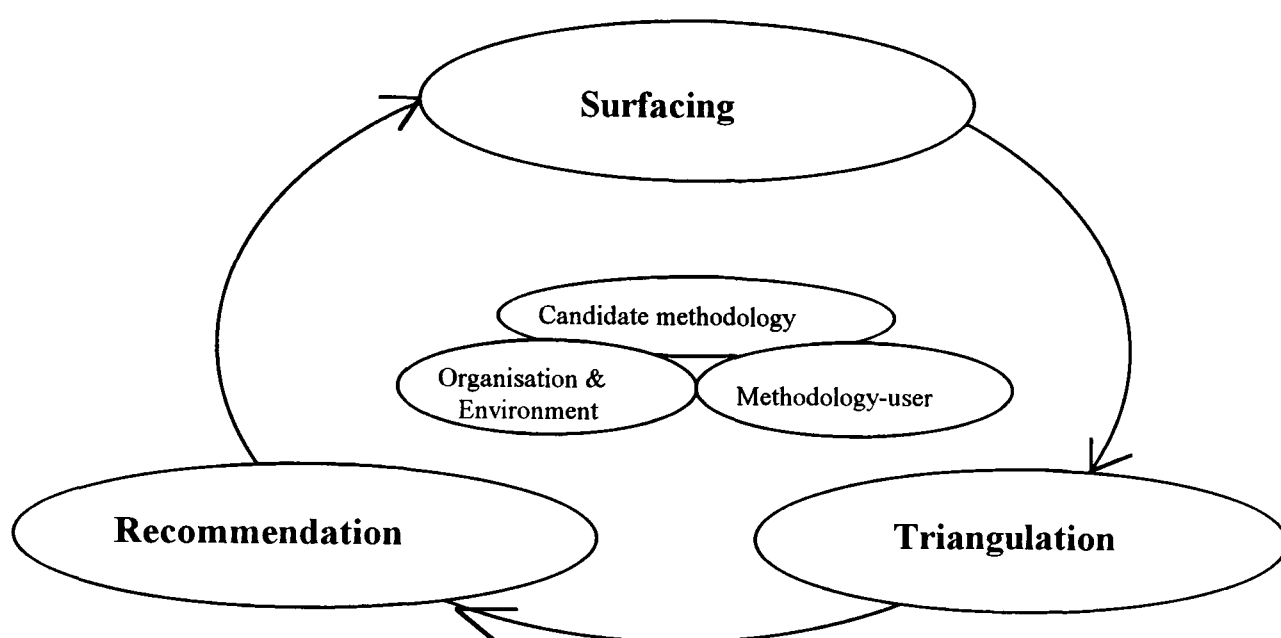


Figure 8.3. Three Phases in PME

The three phases are explained in more detail below:

1. Surfacing.

The first phase of the evaluation process is to surface and understand the three perspectives (and sub-perspectives) on the candidate methodology, and their underpinning ideologies. In this phase, the PME-practitioner who runs the evaluation process should help the methodology-user and the organisation expose their assumptions. Following Flood (1995a), this phase may employ a variety of methods to creatively surface each viewpoint. Surfacing the three perspectives (and sub-

perspectives) on the candidate methodology and organisational context is done as follows:

1. To understand the philosophy, principles and process inherent in a candidate methodology, one can:
 - Surface the original assumptions of the candidate methodology about what an organisation should ideally be.
 - Ask what the methodology assumes in terms of Flood's (1995a) categories of organisational process, design, culture and politics.
2. To consider and take into account organisational and environmental views on the candidate methodology and the organisation, one can:
 - Understand organisational and environmental ideologies through metaphor analysis (Morgan, 1986) and boundary questions (Ulrich, 1983).
 - Introduce the candidate methodology to stakeholders for comment and critique.
 - Encourage debate within stakeholder groups.
 - Collect people's individual and collective responses.
3. To clarify the methodology-users' own understanding, preferences and assumptions:
 - The PME-practitioner can support the methodology-user in revealing his/her understanding of the candidate methodology and the organisation.
 - Boundary questions (Ulrich, 1983) may help in this regard.

The outcome of the surfacing phase will be passed to the next phase, Triangulation, in order to promote mutual understanding of each stakeholder's view of the candidate methodology and the context of application.

2. Triangulation (triangulating the three perspectives, and sub-perspectives, in the local context).

The second phase triangulates the various perspectives and puts them into dialectical debate. This involves evaluating the information that is needed by each group (received from the 'Surfacing' phase) and introducing this into discussions. Ideology-dialogue is crucial of this phase. Ideology-dialogue is used, not only to clarify different perspectives and challenge dominant interests, but also to reflect on the status of the methodology-users' professional knowledge. . Mutual understanding among stakeholders (but not necessarily accommodation or consensus) should be the result.

Techniques that are useful in this phase are participatory methods (such as Strategic Assumption Surfacing and Testing; Mason and Mitroff, 1981) which will, however, depend on the possibility of genuine and open communication between stakeholders if the result are to be meaningful to all concerned. If unequal power relations exist in the organisation, genuine participation may not be achieved. In this case, the PME-practitioner can act as an intermediary between stakeholders.

At this phase, an organisation's "ideology scenario" will be produced by the PME-practitioner, which shows each stakeholder group's assumptions about both the candidate methodology and the organisation. This scenario should be presented back to the stakeholders, to check whether there is any misunderstanding. More details of methods will be provided in Chapter 10. The outcome of the triangulation phase, the "ideology scenario", will be passed to the next phase, Recommendation.

3. Recommendation.

The purpose of the third phase is to make suggestions about whether the candidate methodology is suitable for the organisation or not. If the answer is "no", then questions need to be asked about what can be learnt from the review process, and what can be done next. The PME-practitioner may produce a report that illustrates the different ideological assumptions and the likely effects of using the candidate methodology, and this can be fed back to stakeholders. If agreement among stakeholders concerning recommendations is not forthcoming, then the candidate methodology could be abandoned, modified or replaced following further PME research.

There are several possible outcomes from PME:

1. Application may go ahead as planned.
2. The methodology-user may gain useful insights into other stakeholders' assumptions about the candidate methodology and the organisation. He or she might then change his/her views and take those assumptions into account when he/she applies the candidate methodology.
3. The candidate methodology might need to be modified in order to meet the methodology-user's and the other stakeholders' requirements. There are already several approaches to mixing or redesigning methods reported in the literature that could prove useful here: for example, the creative design of methods (Midgley, 1990, 1997b) and the oblique use of methods (Flood and Romm, 1995a).
4. The organisational and environmental stakeholders could learn about the candidate methodology through PME. If they do not like it, but cannot reject it because of power relations, their enhanced knowledge of the methodology might nevertheless enable them to use whatever opportunities it offers to their advantage as best they

can. If not, then at least they have relevant information to use if they wish to take political action or campaign for future change (see Midgley, 1997a, for an analysis of political action and campaigning as part of systems practice).

5. A new methodology might be chosen in place of the original candidate methodology, which may or may not necessitate another PME cycle.
6. The idea of intervention might be abandoned, either because unforeseen side-effects are revealed that make people think again, or possibly because the enhanced mutual understanding brought about by PME allows change to take place without further professional involvement.

8.5. Conclusion.

In this chapter, I have shown that PME provides a methodology evaluation process, which is needed because no single methodology can be used universally and all methodologies introduce ideological assumptions into intervention. Moreover, I have argued that participants should consider the choice of methodology as a learning process. Methodologies should be critically evaluated in terms of different stakeholder perspectives and their ideologies. This implies that, although a methodology might have been designed with given purposes in mind, it might be interpreted and used in different ways. This approach is therefore different from the System of Systems Methodologies (Jackson and Keys, 1984; Jackson, 1990; Flood and Jackson, 1991a) which takes one interpretation of each methodology as given (Gregory, 1992). This evaluation process also gives an opportunity for people to rethink the relationship between the methodology-user, the candidate methodology and organisational/environmental stakeholders. The choice of methodology will depend on local interpretations of the three stakeholder groups (and sub-groups) and how they interact.

Chapter Nine: Comparison between PME And TSI(2)

Chapter Nine: Comparison between PME And TSI(2)

9.1. Introduction.

As we saw in Chapters 3 and 4, TSI(2)'s Critical Review Mode provides a framework for studying various methodologies and showing how they might become part of a complementarist framework. It has been argued that the critical review process is a time-consuming activity which might be most suitably done by researchers (Wilby, 1996). The resulting database-like methodology knowledge can then be used as a reference for problem solvers when they are dealing with actual organisational problems. The knowledge becomes active in the choice phase of the Problem Solving Mode. In contrast, PME argues that methodology evaluation should be operated locally in organisations (as opposed to researchers attempting to produce generalisable knowledge), and the procedure should extend to sweeping in a variety of perspectives. In effect, PME unifies the Critical Review Mode and the choice phase of the Problem Solving Mode in TSI(2). While my original objective when starting this research was to develop the Critical Review Mode, this unification of the Critical Review Mode and choice in problem solving breaks with the basic structure of TSI(2). Hence, I needed to present PME as a distinct methodology. I argue that both PME and TSI(2) have strengths and weaknesses, and the purpose of this chapter is to compare them.

First of all, I will suggest where and when PME is most appropriately used, in comparison with TSI(2). Second, the different attitudes of TSI(2) and PME to the creation of systems of methods will be explored. Third, their respective attitudes to dealing with coercion and ideological conflict will be highlighted. Finally, I will suggest how PME can be used within TSI(2) to enhance the choice phase in the Problem Solving Mode.

9.2. Where and When is PME Needed?

The main purpose of TSI(2) is to solve organisational problems, although it claims that its three modes can also be used separately according to users' needs. The Critical Review Mode is a knowledge accumulation mechanism to create a database-like system of methods. In the Problem Solving Mode, the organisational problem context is studied and (a) method(s) is/are chosen to deal with the problems that have been identified. The final mode of TSI(2), the Critical Reflection Mode, is used to review and evaluate the intervention, and ask whose interests have been served. I therefore suggest that TSI(2) provides a process for guiding intervention that is more comprehensive than any other systems methodology (at least any other methodology that I am aware of).

PME, on the other hand, is only concerned with local methodology evaluation in an organisation. Also, PME can only evaluate a methodology which has already been recommended by problem solvers, managers, or other members of the organisation. However, PME argues that it is more meaningful and beneficial if the candidate methodology can be understood and tested by sweeping in wider perspectives through stakeholders' participation, and revealing potentially diverse ideological assumptions about the candidate methodology and the organisation. PME can be used to help stakeholders, including methodology-users, understand why a methodology might or might not function as expected, since the three groups (and sub-groups) of stakeholders involved in the evaluation might have different perspectives on the candidate methodology and the future of the organisation, and will act in accordance with these perspectives.

PME's three phases of evaluation enrich organisational participation, particularly by involving methodology-users in debate with stakeholders. Thus, PME can only be practised in a real organisational situation. It cannot be practised by PME-practitioners

on their own. However, this can be seen as an advantage for the organisation, enabling people to learn more about an organisation's needs.

9.3. Beyond a System of Methods.

The aim of the Critical Review Mode in TSI(2) is to build knowledge about methods and methodologies under review in terms of TSI(2)'s philosophy, principles, process and methods (Flood, 1995a,b; Wilby, 1996). A critical review is undertaken of candidate methodologies according to their immediate and given purposes, and thus a system of methods is prepared for problem solvers. Any such system of methods must, by its nature, make general claims about the nature of methodologies and cannot take local organisational circumstances into account. This question of critically reviewing organisational circumstances is left to the Problem Solving Mode where the two sets of information (about methods and organisational circumstances) are brought together. Arguably, the system of methods could be produced in a laboratory; it can almost be seen as a textbook that gives an ideal understanding of a candidate methodology. This is the logical consequence of Wilby's (1996) point that building a system of methods is a time-intensive operation which is beyond the resources of most organisations. In Wilby's vision, problem solvers can regard methods as an input of professional knowledge.

The question arises, is it really wise for problem solvers to take this professional knowledge for granted? My answer is "no", for several reasons. First, methodologies can develop and change as their creators revise their ideas, making a one-off classification restrictive (Gregory, 1992). Second, there may be more than one interpretation of a methodology (Gregory, 1992). Third, methods may be used for the purposes for which they were designed, but may also be used "obliquely" for other purposes (Flood and Romm, 1995a), making categorisation highly problematic.

Finally, and perhaps most importantly, taking professional assumptions for granted may mean importing an alien ideology into an organisation without any awareness that this might be the case, or any thought about the potential consequences.

PME argues that a methodology is appropriately understood according to a variety of stakeholder perspectives. When a problem solver takes his/her system of methods into an organisation, he/she presumes that he/she understands the candidate methodology. However, it can be argued that this is only his/her own perspective, and should be opened up to challenge. Different stakeholders may have different points of view on the candidate methodology. PME provides a forum in which each of these perspectives can be communicated and debated, and the consequences of conflicting views realised.

9.4. Dealing with Coercion and Ideological Conflicts.

Flood and Romm (1995a) indicate that it is problematic to tackle a problem context in which methodology-users are aware of issues of the coercive use of power. In some circumstances, coercive situations can be dealt with by means of "Why" type methods (e.g., Ulrich's Critical Systems Heuristics). However, this can be risky: when open communication is not possible, the outcome of asking "Why?" may be a result of coercion (Flood and Romm, 1995a). Thus, Flood and Romm (1995a) enhance choice in TSI(2) through the oblique use of methods. As they put it:

"When the TSI practitioner proceeds by operating a method obliquely, s/he operates it with knowledge drawn from his/her experience of, and insight into, what other theoretical positions can offer. In the case of oblique use, a theoretical agenda not written into the framework is used to penetrate (as far as possible) the framework. This enables the (powerful) clients to be addressed in a way that does justice to that agenda - but in a way that they might find less threatening." (Flood and Romm, 1995a, p.390)

Flood and Romm (1995a) also recognise that TSI(2) practitioners not only have to know which methods could be used, but also how to use them properly in coercive problem situations. For TSI(2), therefore, dealing with coercive problem contexts relies solely on the problem solvers' knowledge and abilities. It could, of course, be dangerous if the TSI(2) problem solver is not willing to reflect on his/her choice, or if the powerful and the problem solver are the same person. In the latter case, a problem solver might choose a methodology which best serves his/her own narrow interests. Thus, there appears to be a need for something to encourage the problem solver to expand his/her awareness and to act critically. It is a strength of TSI(2) that (unlike most methodologies) it considers how coercion should be tackled, but it does put a great deal of faith in the problem solver to do this.

In contrast, PME does not rely solely on problem solvers' professional knowledge and their moral responsibilities to deal with coercive problem contexts. Rather, it provides for challenges to professional understandings. PME argues that coercion can only be tackled through the promotion of mutual understanding among stakeholders. Each needs to understand the other groups' perspectives. Importantly, the moral responsibility for improving the organisational situation lies with all stakeholders. However, this does not mean naively assuming that open communication is always possible. On the contrary, PME allows the PME-practitioner to act as an intermediary between stakeholder groups when coercion is encountered. The idea is for the powerful to see in advance the likely consequences of implementing a candidate methodology and judge for themselves whether these are acceptable. Those suffering coercion will also be armed with the same knowledge, and may take an informed decision on how to act if implementation goes ahead.

Ultimately, however, it should be acknowledged that, unlike TSI(2), PME is not designed for problem solving, but only for evaluating problem solving methodologies.

Therefore, if coercion is actually dealt with through PME, this is a bonus: it is enough that awareness of coercion, and its potential effects on intervention, be raised amongst stakeholders.

9.5. Using PME as Part of TSI(2).

Flood (1995b) realises the importance of stakeholder participation in TSI(2)'s problem solving process, and acknowledges that more work needs to be done in this area:

"It is important that we clarify the role and impact of people in the TSI process. The following three questions have yet to be adequately addressed. Is TSI consultant or client centred? Who decides on the outcome? How sensitive is the outcome to key players in the process?" (p. 190)

PME highlights such issues and can be used to ensure that TSI(2) is not employed solely to pursue a methodology-users' narrow interests. PME can be incorporated within the choice phase of the Problem Solving Mode. In the choice phase, Flood (1995a) identifies two steps: choose the *type* of method and choose the *actual* method(s). (pp.108-109) Choosing the type of method means determining the main purpose for intervention; choosing the actual method(s) is done by identifying the principles for intervention (Flood, 1995b) and then finding out which methods best embody them. PME might then be used to double-check possible consequences of the intervention.

9.6. Conclusion.

This chapter has shown that PME does not replace TSI(2) or the Critical Review Mode. Instead, PME provides a simple process which can be used to produce local understandings of methodology and so help organisations find out in advance why an

intervention may or may not encounter problems. PME argues that professional knowledge (such as that embodied in a methodology-user's system of methods) needs to be opened up to challenge by sweeping in wider perspectives from relevant stakeholders. In addition, the forms of communication proposed within PME may support stakeholders in arguing against the possible imposition of undesired ideologies. Finally, this chapter has made it clear that PME can be used independently to evaluate a chosen methodology, or can be used as part of process in TSI(2) to enhance the choice phase of the Problem Solving Mode.

Chapter Ten: Designing A Method for Implementation

Chapter Ten: Designing A Method for Implementation

10.1. Introduction.

This chapter aims to design a practical process for carrying out PME, which can be used for methodology evaluation. This practical process will employ many techniques which are needed to expose the different assumptions underlying each stakeholder perspective in the evaluation. The practical application of various methods is guided by the "creative design of methods" (Midgley, 1990, 1995c), which I described in Chapter 2: methods (and parts of methods) may be synthesised creatively in line with perceived stakeholder needs. However, the creative design of methods will conform to PME's three phases which were described in Chapter 8. It must be emphasised that the methods proposed here are an "ideal type", suggested outside the context of any particular application. In a real situation, adaptations will be necessary. Making such adaptations is usual in critical systems projects (Midgley, 1990; Jackson, 1990; Flood, 1995a), and is to be welcomed, provided that PME's principles are still adhered to.

As I mentioned in Chapter 8, the person or group who is facilitating the PME is called the PME-practitioner. The PME-practitioner should ideally be an independent party who facilitates the PME process of evaluating the candidate methodology before real intervention. This independence makes it easier to ensure that communication between the stakeholders is open and non-coercive. The PME-practitioner assists the revealing of stakeholders' assumptions about the organisation and the candidate methodology. In particular, it is important that the methodology-user's assumptions about the candidate methodology should be tested and made transparent along with those of other stakeholders.

10.2. Characteristics of the PME-Practitioner.

The PME-practitioner plays a key role in the whole process and should not only be committed to the technical feasibility of the intervention, but also has a moral responsibility for his/her role in relation to the organisation. This idea is central to the understandings of several writers in Critical Systems Thinking, most notably Midgley (1990) and Flood and Romm (1996b). PME also embraces the three CST commitments to methodological pluralism, critical awareness and emancipation. How these commitments are expressed in any particular intervention should always be borne in mind when using the PME process. Thus, PME-practitioners need to have the following characteristics.

- PME-practitioners should appreciate that methodologies need to be applied in a pluralist fashion. The PME-practitioner has to be willing to develop understandings of the ideological background and strengths and weaknesses of the candidate methodology and the methodology-user's capability to implement it. He/she should also be willing to consider how the candidate methodology might be adapted, not simply seek to recommend its acceptance or rejection.
- To promote critical awareness, PME-practitioners should be willing to respect the local context. The PME-practitioner can help the methodology-user to reflect on his/her intellectual knowledge and ideological understanding of current organisational circumstances. Reflection "is the means whereby we can become aware of the need to be critical or suspicious of our intellectual assumptions." (Hassard, 1993, p.127-129)
- To promote emancipation, the PME-practitioner has to be willing to create awareness of marginalised stakeholders (Midgley, 1992b). It is the PME-practitioner's responsibility to create a forum (or forums) for the stakeholders to

discuss the candidate methodology so that their needs can be assessed prior to intervention, ensuring that the intervention creates genuine improvement in the eyes of as wide as possible a range of people. If the powerful resist the views of other stakeholders, at least the latter will be forewarned.

In the following sections, I will describe how PME can be used in practice.

10.3. Surfacing.

The first phase of PME is concerned with surfacing stakeholder perspectives on the candidate methodology and the organisational context. Each assumption stakeholders make is derived from, and supported by, a particular ideology, which will determine the way the current organisation is perceived as well as the ideal that the organisation should be aiming for.

The main technique to surface the difference between the current and ideal situations is use of Ulrich's (1983) boundary questions, which emphasise understanding both the "is" and the "ought". When using Ulrich's questions, it is also important to see what conflicts exist between stakeholders, because different stakeholders might view the same issues in different ways (Midgley, Munlo and Brown, 1997).

10.3.1. Boundary questions help the PME-practitioner to surface assumptions about the organisation and the candidate methodology.

Ulrich's (1983) boundary questions were first introduced as part of his methodology Critical Systems Heuristics (CSH), which aims to "help planners make transparent to themselves and others the presuppositions that inevitably enter into social system designs". In particular, and following Churchman (1979b), he uses the concept of

"boundary judgement". A boundary judgement reflects the designer's "whole systems judgement" about what is relevant to the design task. "Boundary judgements" provide an access point to the normative implications of systems design. Midgley (1995b) indicates that CSH can be used by individuals to enhance critical self-reflection. He also expands the boundary concept and argues that "'boundary critique' makes researchers aware of the need to access a diverse variety of stakeholder views in defining problems, and to 'sweep in' relevant information." (Midgley, Munlo and Brown, 1997, p.1)

The process of surfacing assumptions in PME is based on Ulrich's (1983) checklist of 12 questions, framed in two modes. The "is" mode provides a framework for evaluating different views of the current situation as to who is involved and who is affected, who has power; domains of interest and expertise; opportunities for participation, etc. The same questions in the "ought" mode guide reflection on what *should* be the situation.

The 12 questions can be divided into four groups which represent different interests and concerns in the design (Ulrich, 1983).

1. The first group of questions asks for "sources of motivation" flowing into the design. They are concerned with the purpose, direction and values of the design. From these, PME-practitioners can understand whose interests may be served by the candidate methodology.

-
- (1) Who is the actual client of S's design, i.e. who belongs to the group of those whose purposes (interests and values) are served, in distinction to those who do not benefit but have to bear the costs or other disadvantages?
 - (2) What is the actual purpose of S's design, as being measured not in terms of declared intentions of the involved but in terms of the actual consequences?
 - (3) What, judged by the design's consequences, is its built in measure of success?
-

Table 10.1. The Critically Heuristic Boundary Questions, Concerned with "Sources of Motivation", in the "Is" Mode
(source: Ulrich, 1986)

2. The second group is designed to examine the "source of control" built into a design. This group of questions is concerned with power relationships and decision authority. They tell PME-practitioners who has the power to implement and/or frustrate use of the candidate methodology.

-
- (1) Who is actually the decision taker, i.e. who can actually change the measure of success?
 - (2) What conditions of successful planning and implementation of S are really controlled by the decision taker?
 - (3) What conditions are not controlled by the decision taker, i.e. what represents 'environment' to him?
-

Table 10.2. The Critically Heuristic Boundary Questions, Concerned with "Sources of Control", in the "Is" Mode
(source: Ulrich, 1986)

3. The third group of questions is designed to trace the "source of expertise", and the basis of know-how. From these questions, PME-practitioners can understand how the candidate methodology might be used.

-
- (1) Who is actually involved as planner?
 - (2) Who is involved as 'expert', of what kind is his expertise, what role does he actually play?
 - (3) Where do the involved see the guarantee that their planning will be successful? (e.g. In the theoretical competence of experts? In consensus among experts? In the validity of empirical data? In the relevance of mathematical models or computer simulations? In political support on the part of interest-group? In the experience and situation of the involved?, etc.) Can these assumed guarantors secure the design's success, or are they false guarantors?
-

Table 10.3. The Critically Heuristic Boundary Questions, Concerned with "Sources of Expertise", in the "Is" Mode
(source: Ulrich, 1986)

4. The fourth group represents "witnesses", and helps reflect on the sources of legitimation to be considered, and the basis of this legitimation. From these, PME-practitioners can understand what and who will be involved in implementing, or will be affected by the implementation, of the candidate methodology. These questions also help surface stakeholders for involvement in the PME process.

-
- (1) Who among the involved witnesses represents the concerns of the affected? Who may be affected without being involved?
 - (2) Are the affected given an opportunity to emancipate themselves from the experts and to take their own hands, or do the experts determine what is right for them, what quality of life means to them etc.? That is to say, are the affected used merely as means for the purpose of others, or are they also treated as 'ends in themselves' (Kant), as belonging to the client?
 - (3) What world view is actually underlying the design of S? Is it the world view of (some of) the involved or of (some of) the affected?
-

Table 10.4. The Critically Heuristic Boundary Questions, Concerned with "Sources of Witnesses", in the "Is" mode.
(source: Ulrich, 1986)

Ulrich's 12-point checklist can be used to surface the stakeholders' views on the organisation and the candidate methodology. It highlights the different assumptions between what "is" and "ought to be" the situation of the organisation. In other words, it is used to investigate the ideological "driving force" from "is" to "ought" as represented in the candidate methodology, the words of the methodology-user, and other stakeholders. Each group of stakeholders could have different assumptions about the candidate methodology and the organisation.

The 12-point checklist can be altered according to the PME-practitioners' needs (as reported by Cohen and Midgley, 1994; Midgley, Munlo and Brown, 1997; and Midgley, 1997b). Nevertheless, all four categories of questions are needed if sources of motivation, control, expertise and stakeholder representation are to be surfaced. I will now explore how the perspectives (and sub-perspectives) of each of the three stakeholder categories (the methodology, the methodology-user and organisational/environmental stakeholders) can be surfaced using the CSH questions, starting with the methodology.

10.3.2. Understanding a candidate methodology through literature review and boundary questions.

As argued earlier, a methodology is designed according to its creator's assumptions about reality. These assumptions are derived from his/her experiences, beliefs and social ideology. However, the creator of the methodology might be not willing to be classified in a particular ideological category. Likewise, I do not want to set up a classification system for methodologies and their associated ideologies; in Chapter 9, I argued that methodological classification systems limit flexibility. Ideological classification could also be interpreted as imperialism because the PME-practitioner would inevitably apply his/her own values and ideological assumptions to the process of classification. In contrast, this section shows that inquiry into the ideological nature of methodological assumptions enriches the PME-practitioner's understanding without the need for pre-formed ideological categories

As I have shown, to study the candidate methodology is to show its fundamental philosophy, principles and process. The following issues could be taken into account.

1. The PME-practitioner can look at how the candidate methodology pursues its goals.
Are the goals generated by particular groups or individuals? On what kind of techniques and methods is the process of achieving the goals based?
2. How does the candidate methodology treat the reality (organisation); using what kind of paradigm (in Burrell and Morgan's, 1979, terms)?
3. What does the candidate methodology want an ideal organisation to be?
4. Does the candidate methodology take value conflicts into account?

Through literature review, the PME-practitioner can gain first hand explanations from the methodology's original creators. Moreover, the candidate methodology can also be

assessed through boundary questions that can facilitate the literature review and help the PME-practitioner to gain a deeper understanding of the assumptions about an organisation that are implicit in the candidate methodology. The boundary questions are asked only in the "ought" mode, because the aim is to expose the creator's assumptions about what an ideal organisation ought to be. The assessment will include all four types of boundary question:

1. Questions about sources of motivation surface the candidate methodology's assumptions about an ideal organisation's purpose and whose interests should be served by the organisation.
2. Questions about sources of control surface the candidate methodology's assumptions about an ideal organisation's decision maker(s), definitions of success, and implicit assumptions about what cannot be controlled by the ideal organisational decision maker(s).
3. Questions about sources of expertise surface the methodology's assumptions about planning an ideal organisation, especially whose input is regarded as essential and who should be regarded as the guarantor of success.
4. Questions about witnesses surface the methodology's assumptions about the nature of stakeholder participation in an ideal organisation. For example, one question that can be asked is, are those affected but not involved given an opportunity to express their views?

10.3.3. Exploring organisational and environmental stakeholder assumptions on the candidate methodology and organisational context.

Eisner (1988) points out that each type of methodology is a different practice, shaped by different aims, values, and socio-political realities. Moreover, each is situated within a complex web of background knowledge; in other words, paths for intervention are rooted, not simply in matters of epistemology, but in relation to power, influence and control in communities of inquiry. Therefore, as I argued in more detail in Chapter 7, a methodology should not be interpreted only by its creators and users. It is also necessary to take into the evaluation process the perspectives of other organisational and environmental stakeholders. This is because the proposed intervention will directly or indirectly affect them, and they may in turn affect the course of the intervention. Stakeholder involvement can be seen as part of a learning process. Methodology-users can increase their understanding of potential reactions of stakeholders; and stakeholders can learn the nature of the candidate methodology. Their interpretations might be different from the methodology-users' and creators' understandings of the candidate methodology, because of differences in assumptions and basic knowledge. However, exposure of these differences can enrich the evaluation process. As Gregory (1992) argues:

"Researchers who believe that paradigms and traditions arise from the interactions of communities tend to hold the opinion that true understanding can only be gained by entering into a dialogue with the community of individuals holding a particular perspective." (p.179)

This section embraces two parts: (i) surfacing organisational and environmental stakeholders' perspectives on the organisational situations; and (ii) surfacing their perspectives on the candidate methodology.

10.3.3.1. Surfacing organisational and environmental stakeholders' perspectives on the organisational situations.

I will start by discussing how the CSH boundary questions can be used to reveal stakeholder ideologies. I will then go on to look at how metaphor analysis can complement boundary questioning to deepen understanding. It is important to be aware that, while there may be a range of stakeholder ideological positions, one is likely to be dominant. The dominant ideology is the "driving force" that moves the organisation from its current state towards one particular ideal. It is important not merely to surface a variety of positions, but also to identify this ideological driving force. This will allow stakeholders to reflect on whether the dominant ideology can or should be changed, and what potential there might or might not be for stakeholder involvement in the change process.

- **Boundary questioning.**

Ulrich's (1983) boundary questions can be used to understand the ideological driving force behind the current organisational situation, and investigate what it ought to be. The organisation's current and ideal situations, and the dominant ideology, can be understood by once again asking the four types of question, about

1. *Sources of motivation in the organisation.* These are concerned with the organisation's purpose, direction and value.
2. *Sources of control in the organisation.* These are concerned with the organisation's power relations. Who actually takes decision(s)?

3. *Sources of expertise in the organisation.* These are concerned with the organisation's know-how. How does the organisation set about achieving its ideal design and goals?
4. *The nature of participation in the organisation.* These are concerned with who is affected, directly and indirectly, by the organisation's operation, and whether or not they can become involved in decision making.

The questions are asked in both the "is" and "ought" modes. By comparing the answers using the two modes, the PME-practitioner and stakeholders can clarify the current organisational situation, the nature of the dominant ideology, and various views of the ideal ideology. Moreover, people can begin to explore whether the ideal organisational situation and associated ideology is or is not achievable, and who (stakeholders) should be involved in any change process.

- **Organisational metaphor analysis.**

In Chapter 5 I presented Morgan's (1980) argument that different metaphors express the essential nature of different paradigms. In his later work, Morgan (1986, 1993) went on to argue that metaphors can be used heuristically to explore ways of thinking and ways of seeing that pervade how we understand our world. Morgan (1986) says that there are two stages of metaphor analysis:

- Diagnostic reading of the situation being investigated. In this stage, different metaphors are used to identify or highlight key aspects of the situation.
- Critical evaluation of the significance of the different interpretations thus produced. In this stage, the issue of main concern is used to choose a dominant metaphor or metaphors.

Flood and Jackson (1991a) also state that the idea of "likeness", as it is employed through metaphor, can help us to gain insights into difficult-to-understand phenomena or issues. PME embraces metaphor analysis to support the development of stakeholder understandings of organisational ideology too. Acting as a facilitator, the PME-practitioner may listen to the accounts provided by stakeholders and highlight key metaphors. The implications of these can then be explored in further discussions.

10.3.3.2. Organisational and environmental stakeholders' perspectives on the candidate methodology.

Stakeholders may hold different perspectives, based on their own knowledge and assumptions, from which to see the organisation. Likewise, stakeholders may also have different ideas about the candidate methodology. It is very important that the PME-practitioner gather individuals' interpretations of, and reactions to, the candidate methodology. Firstly, the PME-practitioner has to introduce the stakeholders to the candidate methodology, as they may have no prior knowledge of it. Secondly, interviews and group discussions can be held in order to surface stakeholders' perspectives on the candidate methodology.

- **Introduction courses to organisational and environmental stakeholders.**

First of all, in order to let the stakeholders understand the basic concept of the candidate methodology, they should be given a few sessions of explanation about its philosophy, principles and process. The PME-practitioner should introduce the candidate methodology to the organisation in terms that, as far as possible, reflect those of its creator. He or she should avoid commenting on the candidate methodology in an evaluative fashion.

It may be difficult to involve all stakeholders in this stage. Selection may be necessary, but if this is the case then consideration should be given to the relative importance of the various stakeholder groups. It is also important to maintain the presence of at least some environmental stakeholders so that the effects of the organisation's activities beyond its own boundaries are considered.

- **Collecting and discussing the organisational and environmental stakeholders' perspectives on the candidate methodology.**

At this stage, individuals are asked by the PME-practitioner to communicate their views on the candidate methodology. Moreover, stakeholders are asked whether they believe that the candidate methodology can and should be used to resolve current organisational problems. The PME-practitioner's role is to promote different points of view, and he or she may obtain various criticisms from the organisational and environmental stakeholders. Such information will enrich the PME process. Stakeholders might also begin to consider the relationship between the dominant ideology (driving force) in the organisation and the ideology implicit in the methodology.

10.3.4. Self-reflective understanding of the methodology-users' assumptions.

In intervention, the methodology-user plays a key role. It is therefore important that methodology-users reflect on what they believe; their assumptions, knowledge and understanding of both the current organisational circumstances and the candidate methodology. In Chapter 7, I explained the importance of the methodology-user's self-reflection. These arguments will be briefly revisited before the possible use of boundary questions to support reflective practice is explored.

Mason (1969) argues that if one intends to improve the planning process, it is important that the assumptions of the methodology-user be exposed and subjected to conscious deliberation and reflection. Schon (1983) also indicates that:

"When a practitioner reflects in and on his practice, the possible objects of his reflection are as varied as the kinds of phenomena before him and the systems of knowing-in-practice which he brings to him. He may reflect on the tacit norms and appreciation which underlie a judgement, or on the strategies and theories implicit in a pattern of behaviour. He may reflect on the feeling for a situation which has led him to adopt a particular course of action, on the way in which he has framed the problem he is trying to solve, or on the role he has constructed for himself within a larger institutional context." (p.62)

Schon (1983) shows that a methodology-user has to reflect at two levels: (i) his personal tacit norms and (ii) social consciousness. Flood (1990a) says something similar:

"Self-reflection develops an awareness of one's own mind and its operations and reasoning about how and why the ideas of this mind and operation come about. Using ideas of the mind to reflect on other ideas it already processes." (p.216)

However, the question arises, how can a methodology-user gain an understanding of his or her unconscious presuppositions which are based on a lifetime of experiences and are affected by the surrounding environment? Habermas (1972) draws upon Freud's psychoanalytic approach to answer this question and states that

"Psychoanalysis is relevant to us as the only tangible example of a science incorporating methodical self-reflection. The birth of psychoanalysis opens up the possibility of arriving at the dimension that positivism closed off, and of doing so in a methodological manner that arises out of the logic of inquiry." (1972, p.214)

Flood (1990a) also argues that psychoanalysis is a:

"... technique that intervenes in the balance between rationality and emotion on a nonrational level. It breaks away from the notion of one past history by deconstructing the perceived history, and then by reconstructing and incorporating new findings. By repeating this process, a pluralist picture is constructed which indicates that there are many possible historical explanations." (p.21)

For Habermas (1972), the aim of self-reflection is to bring about change in society through the improved self-awareness of individuals. Gregory (1992) indicates that "improved self-awareness would enable us to come to see the repression and subjugation that have helped to shape our social reality and its accepted interpretations." (p.207). Likewise, as Horney (1962) states:

"Self-realization is the development of an individual's potentialities as a strong and integrated human being, free from crippling compulsions. Although this cannot solve the ills of the world, it can at least clarify some of the friction and misunderstandings, the hates, fears, hurts, and vulnerabilities, of which those ills are at once cause and effect." (p.56)

As I have argued in Chapter 7, it will be difficult for methodology-users to carry out self-reflection and ideology critique by themselves, without the presence of a facilitator. Ulrich (1983) supports this view, arguing that

"It would not be a good idea to leave such self-reflection entirely to the planner. Not only is he human and thus subject to error, but he is also under pressure from the interest groups that pay him or on which his professional ambitions may depend, quite apart from the fact that he has his own world-view and values. We need, therefore, to rely on witnesses, as representatives of the affected, to make certain that the normative content of the planners' maps and designs is brought to light." (p.241)

I suggest that the PME-practitioner can act as a facilitator to help methodology-users reflect on their underlying assumptions about the organisation and their knowledge of the candidate methodology. Also, Ulrich's boundary questions can be used to support this process. Methodology-users can surface their assumptions about the target methodology's philosophy and principles by using the same boundary questions suggested in section 10.3.2. Furthermore, the methodology-user can explore how he or she views the organisation in current and ideal terms using the boundary questions suggested in section 10.3.3, just like the other stakeholders. Finally, the methodology-user should be able to say clearly why s/he believes the candidate methodology is (un)suitable for the organisation.

The information obtained from exploring the assumptions of the methodology, the methodology-user and the organisational and environmental stakeholders is then passed to the next phase, Triangulation, which is a dialectical process enriching each viewpoint, leading to the creation of an overall picture of the candidate methodology and its implications in the local context.

10.4. Triangulating Knowledge and Understanding in the Local Context through Ideology-Critique (Dialectical Debate).

The PME-practitioner faces three or more sets of alien target assumptions: that of the candidate methodology, that of the methodology-user, and those of the organisational and environmental stakeholders. These are used as the basis for conducting a participatory ideology-critique. Ideology-critique means debating the different assumptions about the candidate methodology, making them transparent to participants (Midgley, 1995b, drawing on the work of Habermas, 1976). This process should develop the stakeholders' understandings in terms of social awareness and the

strengths and weaknesses of the candidate methodology, and in particular it should help the methodology-user clarify the likely consequences of applying it.

At this phase, the collected information needs to be debated dialectically. Mason (1969) argues that a system may be said to be dialectical if it examines a situation completely and logically from two different points of view. The principal idea of dialectical debate is that management learns about the fundamental assumptions of its planning and comes to understand them by observing the conflict between the plan and a counterplan and their attendant world views. The dialectical debate process seeks to highlight various assumptions and enrich different groups' understanding. Thus, the information collected in the previous phase can only be regarded as temporary knowledge leading to the development of more comprehensive understandings.

To this end, the three sets of information obtained in the previous phase are used to challenge each other's assumptions. The goal is to examine and evaluate the three groups' assumptions about:

1. What the candidate methodology wants an organisation to be
2. What the organisation is and ought to be from the various stakeholders' viewpoints
3. What the methodology-user thinks about the "is" and "ought" of the organisation and the methodology

The PME-practitioner has to give each group opportunities to express its perspectives and defend its own assumptions. Figure 10.1 shows that the role of the PME-practitioner is to facilitate this ideology-critique process, in which each group's assumptions are encountered by the other groups. This expands each group's understanding in terms of the organisational situation and the candidate methodology.

Eventually a more comprehensive "ideology scenario" can be created and presented to the various groups of stakeholders.

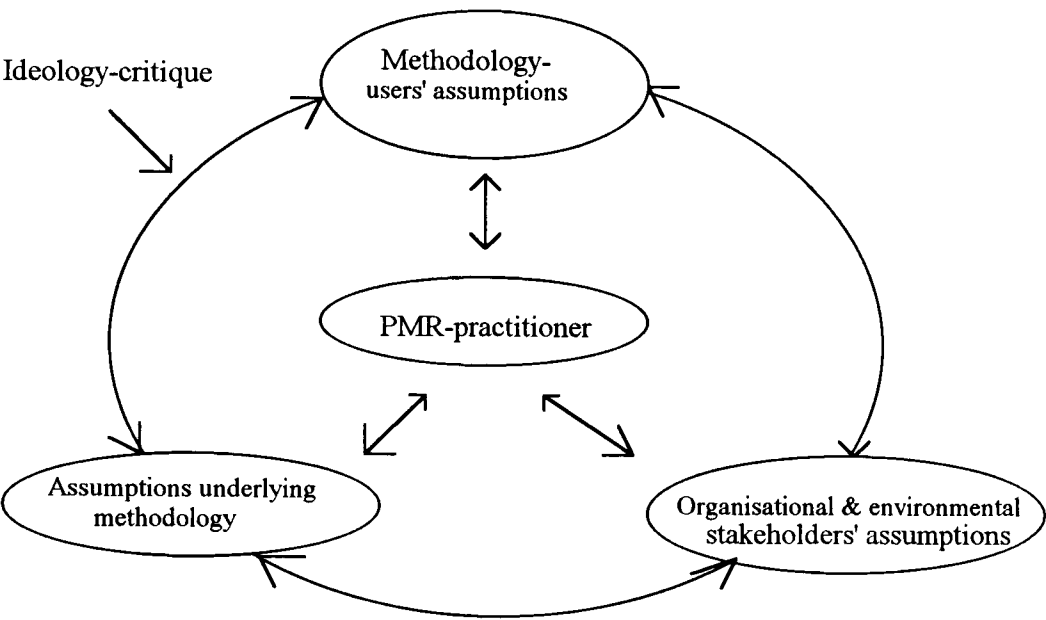


Figure 10.1. Methodology Evaluation and Learning through Ideology-Critique

There are at least two possibilities for conducting ideology-dialogue. If the methodology-user is independent, without strong power influence in the situation, Strategic Assumption Surfacing and Testing (SAST) (Mason and Mitroff, 1981) is recommended. However, if the methodology-user is the power-owner or is power-related, the "obstructive power relation model" (presented later) might be more appropriate.

10.4.1. SAST.

Mason and Mitroff (1981) state that SAST has been found to be helpful in uncovering the critical assumptions that underlie policies, plans, and strategies. "The process has been designed especially to uncover and challenge the key assumptions on which every business plan of necessity rests. Further, it helps managers make better judgements with regard to the reasonableness of their assumptions." (p.35). SAST aims to ensure that alternative policies and procedures are considered. This necessitates the generation of radically different policies or themes since data alone, which can usually be interpreted in terms of existing theory regardless of alternatives, will not lead an organisation to change its preferred way of doing things. Assumptions underpinning existing policies and procedures should therefore be unearthed, and alternative policies and procedures put forward, based upon counter assumptions.

SAST involves four major phases (Mason and Mitroff, 1981). These have been adapted for the purposes of PME in the following way:

1. *Group formation*: Three or more groups are formed, which represent the methodology-user, the organisational and environmental stakeholders and the candidate methodology. Since the candidate methodology cannot speak for itself, the PME-practitioner has to represent it. Organisational and environmental stakeholders may have different views, and sub-groups will need to be formed accordingly.
2. *Assumption surfacing and rating*: In the earlier PME work, each group should have developed a clear view or interpretation of the candidate methodology in terms of its philosophy, principles and process. They should also have developed a view of the organisation, its dominant ideology and ideal future - including whether

the candidate methodology can help achieve this. In assumption rating, each group plots their assumptions on a chart (see Figure 10.2), focusing on:

- the importance of the assumption in terms of its role in understanding the potential impact of the candidate methodology - from least important to most important;
- the degree of certainty that the assumption is justified - from least certain to most certain.

The shaded area shown in Figure 10.2 is the most controversial region. These are the assumptions the group is making that are likely to be crucial in terms of whether or not their perspective will stand up to critique from the other groups; hence, this part of the chart is known as the "problematic planning region" (Mason and Mitroff, 1981).

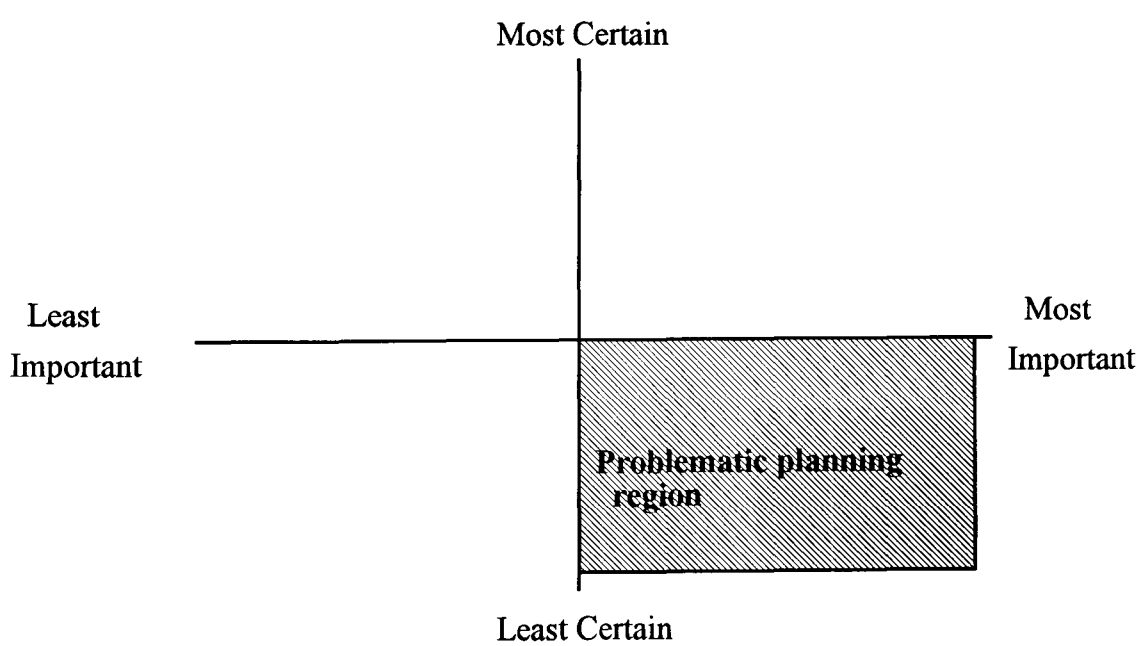


Figure 10.2. An Assumption Rating Chart
(source: Marson and Mitroff, 1981)

3. *Investigative debate*: This stage brings the groups together to present their viewpoints. Each group has to defend its assumptions and alternatives. After the debate has finished, the groups retire once more to reconsider their positions.
4. *Final synthesis and decision*: The aim of this stage is to reach an accommodation, where possible, between groups on their alternatives and assumptions. This is a process of negotiation and further modification. It should be noted, however, that reaching an accommodation should not be forced: it is preferable to end with disagreement, and to explore the implications of this for using the candidate methodology, than to bury disagreement under a pseudo-consensus which hides the likely effects of using the methodology.

Through SAST's dialectical debate, PME-practitioners and participants can gain a clearer picture of different groups' assumptions, and the issues which underlie conflicts and disagreement. However, the PME-practitioner should not make any judgement as to which position is superior. Rather, all issues should be taken into account and consideration given as to how the candidate methodology might be improved so that as wide a variety of stakeholders as possible can be satisfied. Of course, there may be some interests that remain irreconcilable. As discussed in Chapter 8, and in the previous paragraph, PME does not try to force compromise. If compromise is not possible, at least the PME process raises awareness of the probable consequences of intervention using the candidate methodology so that stakeholders can make up their own minds what to do.

10.4.2. The obstructive power relation process.

In a situation where stakeholders cannot freely express their points of view, the obstructive power relation process may be used to *simulate* face to face dialogue. The alternative to triangulating the stakeholder perspectives is to have the PME-practitioner act as a mediator between them. The unequal power groups need not meet face to face. This will be especially valuable when the methodology-user is a power owner or is power related. If necessary, individual interviews can be used to find out the reactions of stakeholders. As mentioned earlier, the PME-practitioner needs to consider the position of marginalised groups and enable them to express their viewpoints in whatever way appears most feasible in the local situation. The PME-practitioner plays the part of a negotiator who treats comparison as a semi-public event, moving between stakeholders to raise awareness of others' positions. At the end of the day, the methodology-user will still be in a powerful position, but may make a more informed decision on whether the intervention should or should not go ahead as planned.

10.5. Recommendations (suggestions and change proposals).

The aim of the PME process is to evaluate whether a candidate methodology should be used in a particular organisation. The outcome will not simply be "Yes" or "No". Possible and acceptable outcomes will either be discussed through open debate among the groups of stakeholders or, if the obstructive power relation process is in operation, the debate will be mediated by the PME-practitioner. The recommendation phase discusses the outcomes from triangulation phase and what actions might be taken by the methodology-user and other participants.

10.5.1. Possible outcomes from PME.

It is by considering the harmony, or lack of harmony, between the various ideological assumptions that it will be possible to decide whether application of the candidate methodology is likely to be successful, and in whose terms. There are six possible outcomes:

1. Complete ideological harmony. The various groups of stakeholders make similar or reconcilable assumptions about the candidate methodology and its likely effects. They share the view that the candidate methodology can provide a suitable problem solving process for the organisation. In such a situation, the candidate methodology should be able to be practised without any difficulties.
2. The methodology-user and the candidate methodology have similar or reconcilable assumptions on the organisation problem situation, but some or all of the most powerful organisational and environmental stakeholders disagree. They make different assumptions about the candidate methodology. Perhaps the stakeholders disagree as to whether the candidate methodology is suitable in terms of its fundamental view of reality, or perhaps they believe that the candidate methodology provides insufficient process for solving the organisational problems. The methodology-user might be able to operate obliquely, but could be jettisoned, depending on how visible the disagreement becomes.
3. The methodology-user and the candidate methodology have similar or reconcilable assumptions on the organisational problem situation. Some marginalised stakeholders disagree with these, but those with power support the methodology-user. Implementation will probably go ahead, but at least participants will have a chance to consider the methodology's likely effects in terms of the marginalised stakeholders' viewpoints.

4. The organisational and environmental stakeholders and the candidate methodology have similar or reconcilable assumptions on the organisational problem situation, but the methodology-user disagrees that the candidate methodology can appropriately be used in this organisational context. It will be unlikely that the methodology-user will have freely chosen a methodology with which she/he disagrees; it may have been the choice of organisational stakeholders. In such a situation the methodology-user would have to decide whether to withdraw or operate obliquely, but it could be that the other stakeholders would find another methodology-user.
5. The methodology-user and the organisational and environmental stakeholders have similar or reconcilable views on the organisational problem situation. However, the methodology itself makes assumptions that they see as problematic. Either the candidate methodology can be modified, or it can be dropped and another one selected.
6. The groups have distinct assumptions about the problem situation which cannot be reconciled through discussion. This makes the situation particularly difficult. In this case, the oblique use of another methodology might be possible, but it is most likely that the stakeholders will go their separate ways. Nevertheless, through PME, they will have understood that using the wrong methodology could make the problem situation worse. The stakeholders and the methodology-user will therefore have learnt something from this review process.

It is usually the case in systems practice that the intervener writes a report following intervention, if only to summarise the results of debate. In the case of PME, production of a report by the PME-practitioner could be useful for participants so that they have something concrete to remind them of the issues and promote further reflection. Part

of writing a report may be to make recommendations to the organisation. I suggest that this will be particularly important if the outcome is to modify the methodology or choose an alternative. The knowledge of methodology brought in by the PME-practitioner could be useful here, although the organisation would be advised to initiate a new PME-process to check that the PME-practitioner is not just setting him or herself up as a new expert.

10.6. Conclusion.

This chapter has explored PME in more detail and has identified some methods that can be used to surface and triangulate diverse assumptions about the organisation and the candidate methodology. Ulrich's (1983) boundary questions can help stakeholders to express their views, and this questioning can be supported with metaphor analysis. Participatory methods like SAST support triangulation when open communication is unproblematic. When open communication is difficult, the PME-practitioner can act as a mediator between stakeholders. The PME recommendations provide a possible answer for the methodology-user and participants as to whether the candidate methodology should be used to address the organisation's problems. However, the methods presented in this chapter are an ideal; in practice, the PME-practitioner will need to modify and adapt them, and/or introduce other methods, according to the organisational context.

Chapter Eleven: Application in Tainan City Council (a Pilot Case Study)

Chapter Eleven: Application in Tainan City Council (a Pilot Case Study)

11.1. Introduction.

This chapter describes the application of PME in an organisation. The application is a pilot case study that can assist us to understand the strengths and weaknesses of PME in practice. The pilot was conducted in Tainan City Council (TCC), which functions as an auditor to Tainan city government (Taiwan). The Speaker (leader and chair) of the council, Mr. Fang, who had shown great interest in how to improve the council's performance by using systems concepts (following study for an MA Management Systems degree), invited me to comment on his proposals for change. This offer was based on personal friendship and provided a good opportunity for me to apply my methodology. I offered to review and evaluate the candidate methodology which Mr Fang proposed to use in TCC, and this offer was accepted.

In TCC's case, the candidate methodology was the Viable System Model (VSM; Beer, 1979, 1985), although Mr. Fang was clear that other methodologies could also be considered. Fang aimed to change citizens' impressions of the government organisation by means of improving its service performance. He thought that the pre-formulated organisational structure of TCC (the structure of every city council is determined by central government regulations) was unable to deal with the far-reaching economic growth and political change (due to opposition party demands) being experienced in the city, and that a more effective organisational structure needed to be designed. Fang had chosen the VSM because, in his view, it can improve organisational structure in terms of communication and control. I was asked to evaluate the VSM to see whether

it would be (un)suitable for TCC, and if it was not completely acceptable, to find a possible solution and make recommendations.

This chapter illustrates the implementation of PME in TCC. First, the creation of a workshop is described. This helped the PME-practitioner (myself) to investigate the background of TCC's current situation and identify the most relevant stakeholders. Second, the three perspectives (and sub-perspectives) on the candidate methodology were revealed and analysed, based on several workshops and a series of individual interviews. Third, triangulation among these perspectives was undertaken. As Fang (the methodology-user) was in a position of power in TCC, the obstructive power model of triangulation was used: communications between stakeholder groups were mediated by the PME-practitioner. Finally, recommendations were prepared by the PME-practitioner for the organisation.

11.2. Constraints.

PME does not set a time limit for the evaluation process; it depends on the PME-practitioner's experience and the extent of the organisation's cooperation. Fortunately, Mr. Fang helped me in terms of finance and administrative support. However, there are inevitably practical constraints in any real application, and the PME-practitioner has the responsibility to suggest methods of evaluation that are acceptable to the organisation without significantly compromising the principles of PME. The following were considered as the main constraints in this practical application.

1. In five weeks time, TCC was due to hold its annual meeting, and many councillors and staff were busy preparing for that. I was asked to complete the PME process so that the proposed intervention using the VSM (or an alternative) could be introduced at the meeting. This was a significant time constraint.

2. Some interviewees were afraid of the power relations between themselves and Mr. Fang, and did not want their conversations to be tape-recorded by the PME-practitioner. I assured them that information would not be identifiable as coming from any one individual, and note-taking was used as an alternative to recording individual interviews.
3. No central government officials could be interviewed personally; therefore, the PME-practitioner had to communicate with this stakeholder group by post.

Although I have a personal friendship with Mr. Fang, I do not see this as a constraint. Rather, it made it easier for me to communicate with Mr. Fang and persuade him to accept the concept of PME, and I do not believe that it obstructed relationships with other stakeholders: they were quite willing to express dissenting opinions as long as confidentiality was preserved.

11.3. TCC's Background.

The following description of TCC derives from my personal knowledge and government documents read before the interviews commenced. The information about Fang's perspective on the organisation, leading to his recommendation to use the VSM, was derived from my interviews with him.

In the local government policy of the Republic of China (Taiwan), there are people's representative organisations at various levels besides the national and local government authorities, such as city governments and district administrations (see Figure 11.1). In Taiwan, local self-government was established in 1950. People's representative organisations in Taiwanese cities are called city councils. The councillors are directly elected by the citizens every four years. The councillors are responsible for checking

and approving local government's long and short term budget and development plans. In other words, councillors can be seen as members of a company board who audit the Managing Director (the Mayor) to run a company (the city government). City councils are not involved in government policy making and implementation. There are 23 local governments in Taiwan and each local government is audited by its local council.

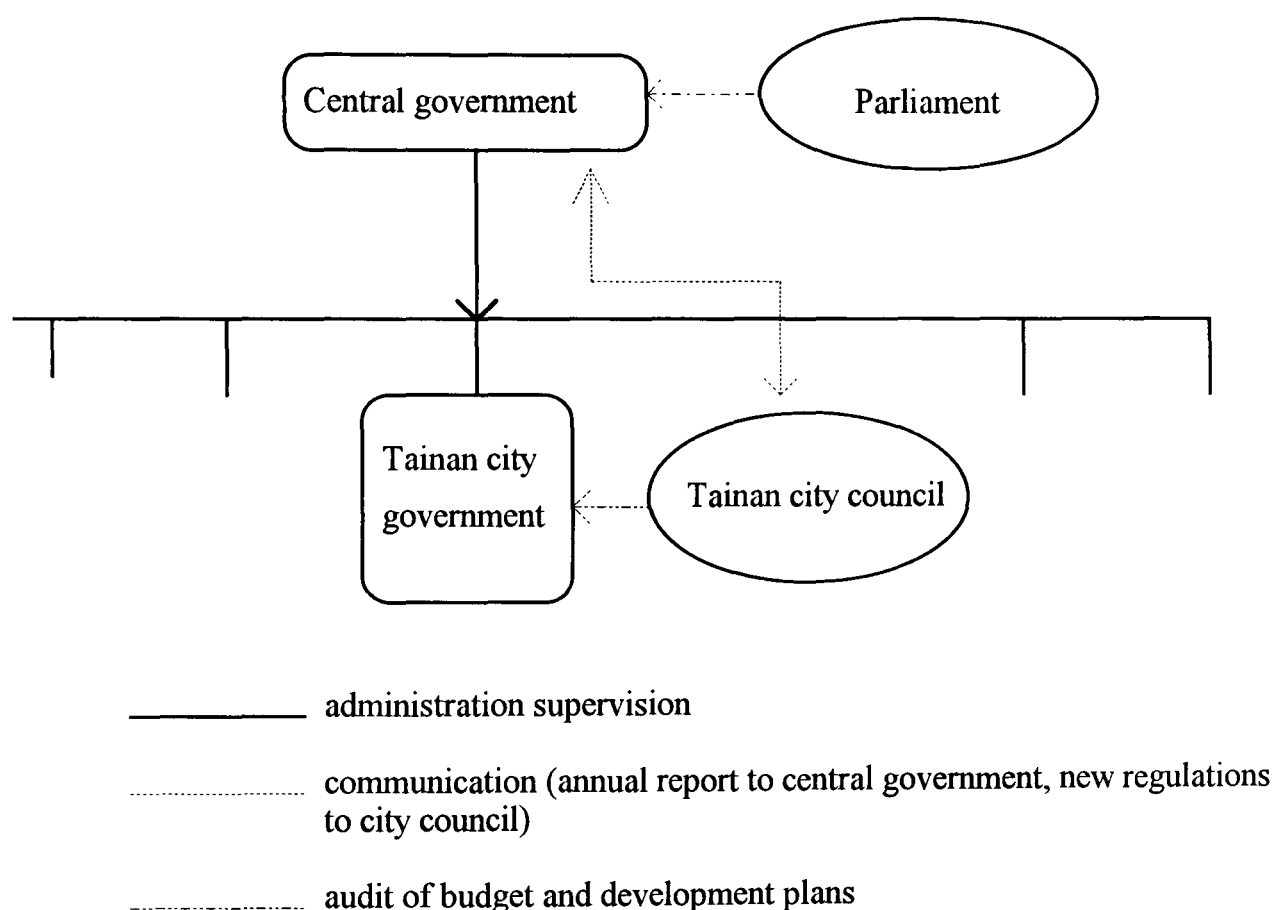


Figure 11.1. Different Levels of the Taiwan Government Structure

According to the "Law of Local-Government" (LOLG, 1950), city councils are required to deal with the following issues:

1. Assisting councillors to investigate municipal affairs;
2. Providing facilities for annual council meetings;
3. Recording and keeping minutes of council meetings;

4. Dealing with international civil relations;
5. Accepting petitions from citizens;
6. Other functions authorised by the laws and regulations of central government and the rules of the provincial self-government.

TCC's organisational structure (shown in Figure 11.2) is designed by central government and, in accordance with LOLG, it is the same as that of all other city councils. It might appear difficult to change such a centrally-prescribed organisational structure, yet local job-design and description are allowed and can be set according to local needs. In practice, therefore, there is considerable scope for change, as long as it is still possible to present the situation on paper as the central government would like to see it.

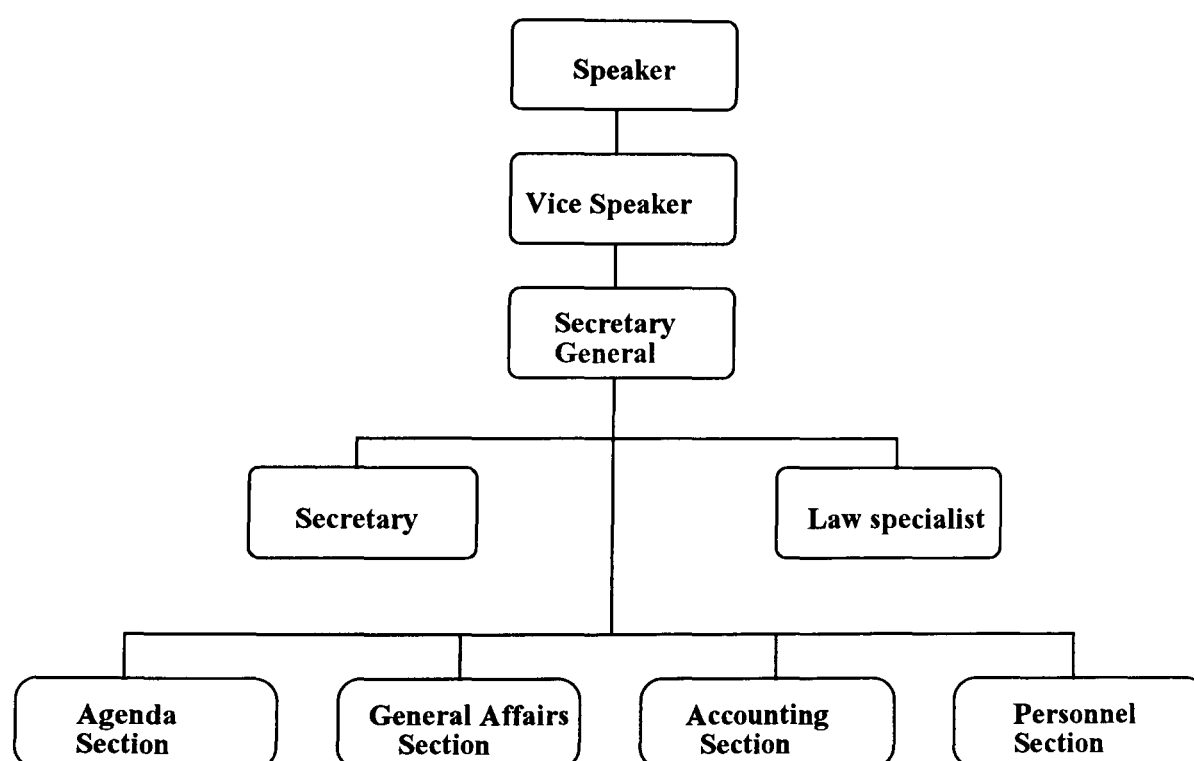


Figure 11.2. The Organisation Chart of Tainan City Council
(Source: Briefing on Tainan City Council Taiwan, 1994, p.3)

The Speaker is one of the elected councillors, who chairs council meetings and can be seen as the "temporary boss" in TCC. Every four years, the Speaker needs to be re-elected by the new councillors. The Speaker generally represents TCC to outside organisations and makes both long-term and day-to-day policies for TCC. The Vice-speaker is in the position of deputy. Usually, the Vice-speaker is not involved in routine policy making and organisational operations. He or she will replace the Speaker only if the Speaker cannot do his or her duty because of a criminal offence, health problem or other pressing reason.

The Secretary General (SG) can be seen as the "managing director" in TCC. He/she makes routine decisions and implements the TCC's policies which stem mainly from the Speaker. The Law Specialist is appointed by central government. He or she specialises in the explanation of law and other regulations relevant to issues discussed in council meetings. The Secretary is generally seen as the Speaker's personal assistant, who is not involved in organisational operations but mostly deals with public relations on behalf of the Speaker.

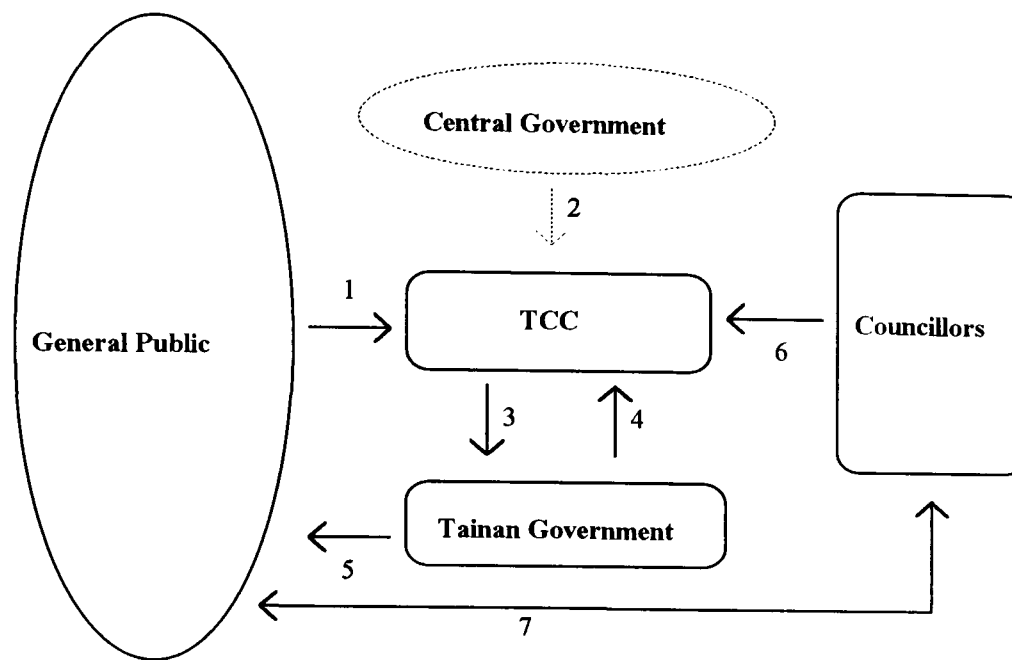
Under the SG's supervision, there are four sections in TCC: Agenda, General Affairs, Accounting and Personnel. These mainly deal with TCC's internal affairs.

- *The Agenda section:* This is responsible for recording and keeping minutes of council meetings. It is the main section in TCC. It can also be seen as a think-tank for councillors: councillors are not officially provided with personal assistants by the government, but they can use the TCC's personnel resources to help them to gain necessary information. However, they should get permission from the Speaker for this.

- *The General Affairs section:* This section is responsible for purchasing, repairing goods, and dealing with any matters which do not fall within the remit of other sections.
- *The Accounting section:* This is the audit body which checks TCC's spending and budgeting. It reports to central government, but under the Speaker's supervision. The TCC's budget cannot be finalised without its agreement.
- *The Personnel section:* This section is responsible for promotion applications, keeping attendance records and conducting annual performance appraisals.

Currently, there are 40 employees in TCC. 25 employees are on permanent contract and 15 employees are in temporary positions. Temporary employees' contracts need to be reissued every year by the Speaker. Permanent employees are recruited and protected by central government. The Speaker does not have the authority to discharge permanent employees, whereas temporary workers can be hired and fired by the Speaker.

Although the TCC's main role is to assist councillors during annual meetings, it also provides other services for citizens and has links with other organisations (see Figure 11.3).



- 1: Petitions
- 2: General Advice and Emergency Decision Making
- 3: General Advice and Annual Budget Meeting
- 4: Annual Policy Report
- 5: Policy Implementation
- 6: General Enquiries and Assistance
- 7: Services to and Feedback from Citizens

Figure 11.3. General Relation of Tainan City Council with Environmental Bodies

Figure 11.3 shows that the Tainan local government is the main organisation with which TCC deals. As I have shown earlier, TCC is an audit body which checks and approves the city's annual budget and development plans. TCC assists councillors to investigate issues and gain necessary information for the annual meeting. Therefore, councillors in this case are not seen as members of TCC body, but as customers serviced by TCC.

There are two main parties in the council, the Kou Ming Tang (KMT, the ruling party) and the Democracy Progress Party (DPP, the opposition). TCC, like other city councils, is overseen by the central government. Although there is no direct supervision, TCC has to produce an annual report to the central government. In

addition, if there is any conflict with government regulations, the central government will play a "neutral" role and resolve them according to the LOLG.

11.4. Implementing the PME Process in TCC.

The PME process as applied in TCC is illustrated in the flow chart below (Figure 11.4).

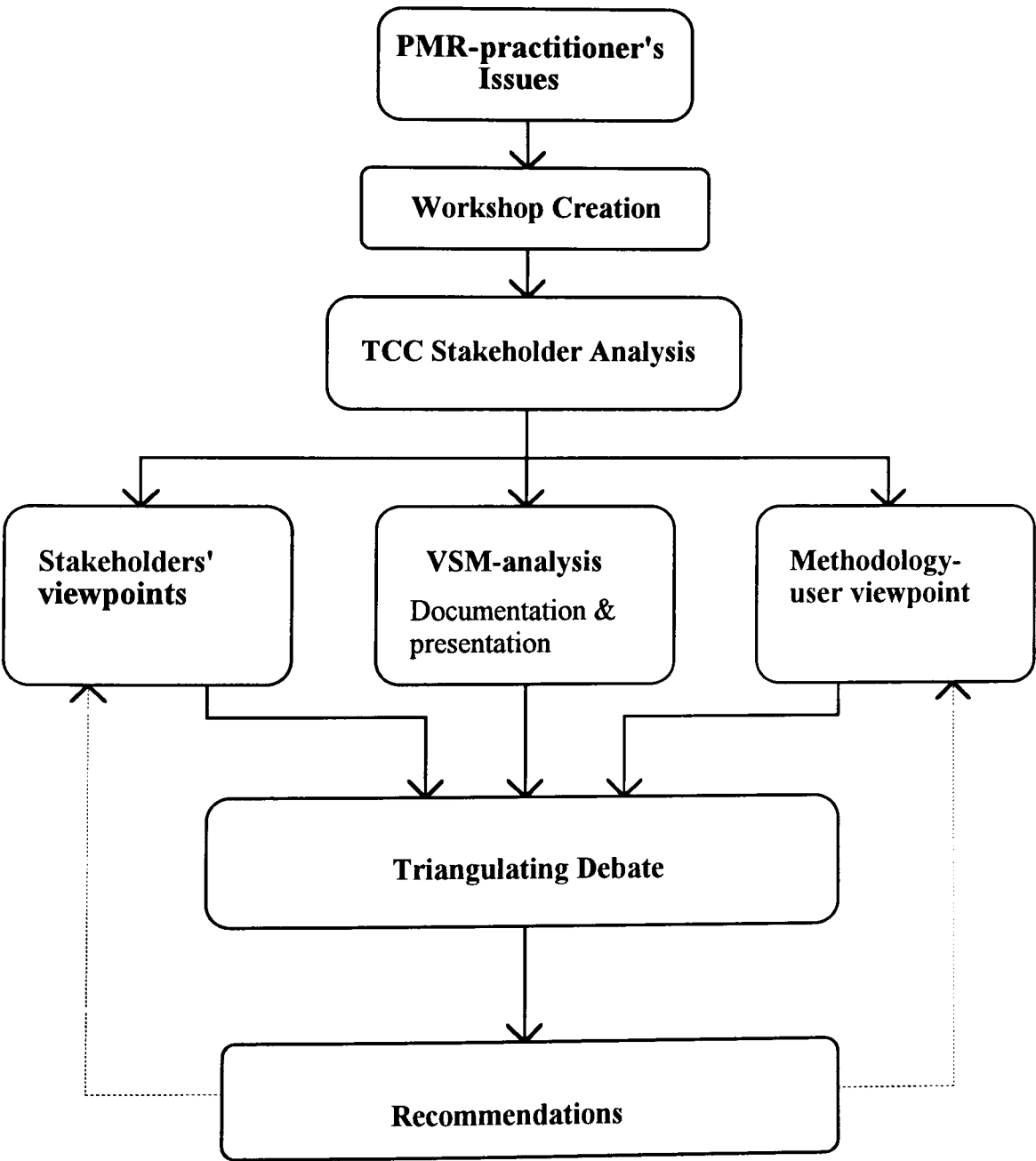


Figure 11.4. Flow Chart for Implementing PME in TCC

The dotted line in Figure 11.4 shows that the PME recommendations should feed back to the methodology-user and the organisational/environmental stakeholders.

11.5. PME-practitioner's Issues.

As shown in Chapter 10, the issues for the PME-practitioner embrace CST's three themes: methodological pluralism, critical awareness and emancipation, which should be taken into account when promoting organisational participation in methodology evaluation. Considering the various factors (such as power relations, culture differences, etc.) that might affect the success of the evaluation, the responsibilities of the PME-practitioner are:

- To ensure that various methods, based on understandings of their strengths and weaknesses, are employed creatively to surface and debate the assumptions of stakeholders in methodology evaluation.
- To involve as many relevant stakeholders as possible in the evaluation, although this can be difficult because of time and resource constraints. The PME-practitioner also has to be aware of any organisational circumstances that might jeopardise the evaluation process, such as power relations. In particular, if the PME-practitioner is recruited by, or has good relations with, the power owners, the PME-practitioner should consciously reflect on the meaning of this for the evaluation, and try to actively minimise possible bias.
- To provide a meaningful, participatory forum for the stakeholders in PME. The PME-practitioner should assist various groups to express their views on the organisation and the candidate methodology. Their responses should also be treated as confidential where appropriate.

These issues can be seen as general guidelines for the PME-practitioner when he or she practises PME.

11.6. Workshop Creation.

A participatory workshop was created to facilitate the identification and involvement of relevant stakeholders in the evaluation process. The project was announced by the Speaker during TCC's monthly meeting. TCC employees were asked if they were interested in this project. Surprisingly, the PME-practitioner found many people asked to join the workshop, to see how systems ideas could help TCC to improve its organisational performance. However, because of time and budget constraints, the PME-practitioner could not involve as many relevant stakeholders as would ideally have been desirable. The members of the workshop were selected to represent different interests within and external to TCC.

Workshop members were selected on two bases:

1. *Volunteer basis*: People who were interested in this project and worked in a directly relevant organisation, such as local government, were invited to participate. Other members volunteered: for example, a Ph.D. student who was doing research on local government history was keen to be involved. Moreover, the PME-practitioner invited a citizen representative (a local community leader) to join the workshop: this was a person with experience of bringing petitions to TCC.
- *Appointed and invited basis*: Some members, as shown later, were appointed by the Speaker who thought that they needed to participate in this process, such as the SG of TCC who is responsible for improving TCC's daily operations. However, I discussed this issue with the Speaker and asked that no pressure should be put on

them. Some members were invited from TCC's administration; the names and addresses of potential members of the workshop were collected from TCC's files. Other invitation letters were sent to relevant organisations such as a local newspaper, the city government, local community groups and universities, to ask whether people were interested in participating in this project. Some volunteers (such as academics) were selected by the PME-practitioner, without informing the power-owner (the Speaker). However, this was accepted and agreed beforehand by the Speaker.

The following 10 people were members of the workshop.

- The Speaker (the methodology-user).
- The PME-practitioner (myself).
- The Secretary General (appointed by Mr. Fang) representing TCC.
- A councillor (volunteer from the ruling party, KMT) representing Tainan city councillors.
- The leader of the Agenda Section (volunteer) representing TCC's employees.
- A councillor candidate for the next election (volunteer from opposition, DPP) representing citizens and the opposition party.
- A reporter from the local newspaper (volunteer) representing the media.
- A local government official responsible for PR affairs between TCC and Tainan local government (invited) representing Tainan city government.
- A local community leader (invited) representing citizens more generally.
- A research student (in political science) from Cheng-Kung University (volunteer) to represent an academic point of view.

As this project was conducted with the permission of the Speaker, the PME-practitioner had to get his commitment in terms of open participation and acceptance

of the right of interviewees to have their conversations kept confidential. The workshop meeting was chaired by the PME-practitioner. All the issues and discussion were recorded by Miss Chen (a TCC employee) assisted by TCC.

The members of the workshop were involved in all the PME procedures from stakeholder analysis through to triangulation. They were used to assist the PME-practitioner to gain necessary information and also provide relevant knowledge about TCC.

11.7. Stakeholder Analysis.

A stakeholder analysis was conducted to identify who is affected, directly or indirectly, by TCC's activities. The PME-practitioner invited the workshop's members to identify possible and potential stakeholders. The two principles underlying the stakeholder analysis were:

1. The current state of an organisation at any time is the result of the supporting and resisting forces brought to bear on the organisation by its stakeholders.
2. The future outcome of an organisation's strategy is the collective result of all the forces brought to bear on it by its stakeholders during the intervening period. (Frost, 1995, p. 657)

After an explanation of the meaning of "stakeholder", various groups of stakeholders were proposed by the workshop's members. At this stage, "idea generation and evaluation-brainstorming" (Flood, 1995a) was used to surface relevant stakeholders, both organisational and environmental. There were two stages in the process of conducting TCC's stakeholders analysis: divergence and convergence.

- **Divergence**

The PME-practitioner acted as a facilitator to help the members of the workshop to create a relevant stakeholder map (Figure 11.5). Several questions were prepared by the PME-practitioner to start idea generation:

1. What organisations are relevant to TCC's functions?
2. Who is or could be affected by the functions and goals of TCC?
3. Who will be affected by TCC's change of structure?

At this stage, members were asked to contribute their views on "Who" are TCC's stakeholders and explain "Why". Members were allowed to argue and criticise each other's ideas, but only if this could be justified on the grounds of improving the stakeholder map. The process was continued until no member raised any new ideas. It took two hours for the members to complete this task.

Some groups of stakeholders were obviously identified without argument, such as city government officials, citizens, TCC's employees, councillors, etc. However, workshop members disagreed on some possible stakeholder groups, such as other city councils, the media and local firms. In such cases, the PME-practitioner asked the person who proposed the contested group to explain his/her rationale. If the argument still continued, voting by simple majority was used to resolve the conflict. Voting was by show of hands, and in my view it was not affected by power relations because the Speaker was clearly committed to exploring a wider understanding of the issues affecting TCC.

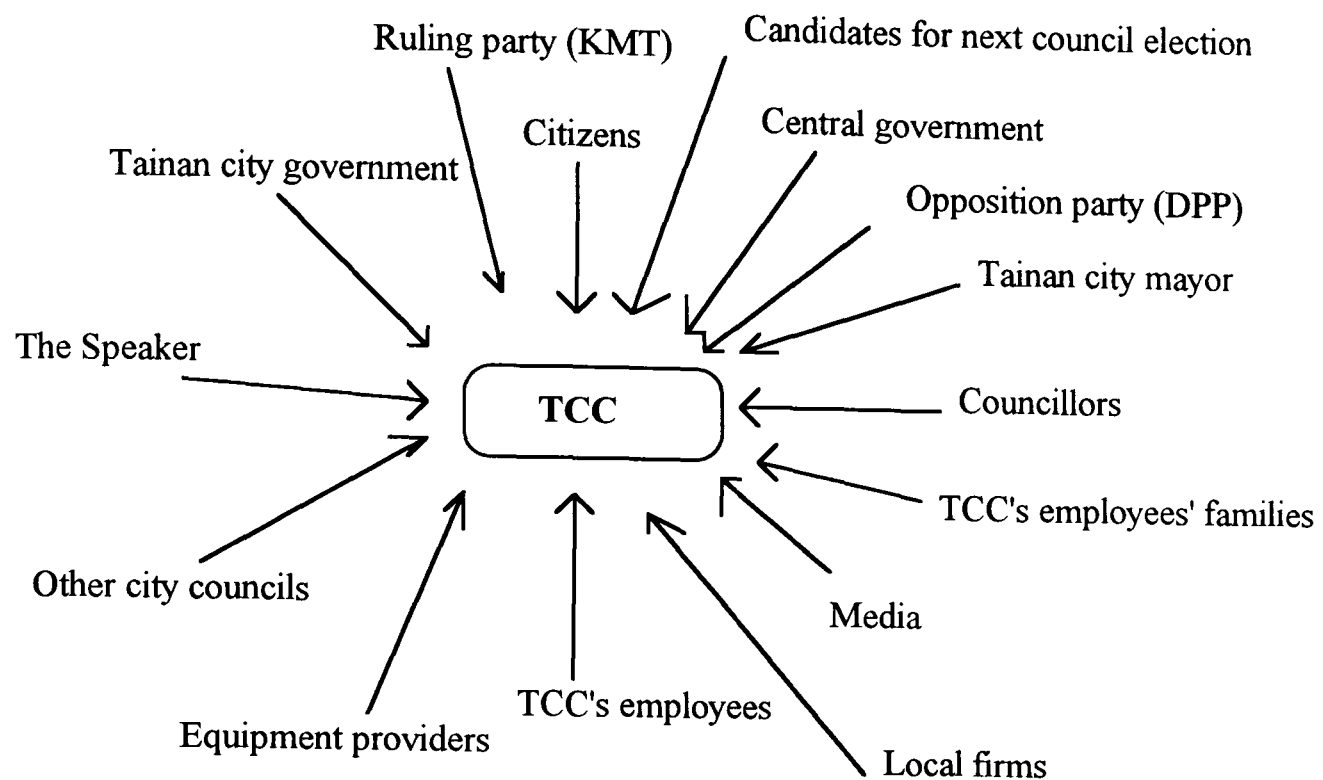


Figure 11.5. Stakeholder Map of TCC

A stakeholder map of TCC (Figure 11.5.) was finally created by members of the workshop. It shows various groups and individuals who are affected by TCC, or who could be affected by future changes.

- **Convergence**

Because of time and financial constraints, it was necessary to narrow participation to only the most "relevant" stakeholders. Of course, there could be no objective criterion for relevance. Therefore, the PME-practitioner narrowed down the numbers of stakeholders by asking the members of the workshop to evaluate discursively the significance of each group of stakeholders shown in Figure 11.5. First, the reasons for each being included was made explicit. These reasons are summarised in the following questions:

- Local firms:

It was agreed by the members that proposed changes in TCC should be assessed both by internal and external stakeholders. The community leader argued that:

"TCC's functions are mainly designed to help councillors to audit the local government's policy making and implementation without considering general public needs, such as those of local firms."

"The Speaker felt that the economic context of TCC is a particularly important matter to be aware of, so he agreed that local businesses should be represented." (The Speaker)

- Other city councils:

The newspaper reporter argued that:

"TCC should not merely serve local councillors as main customers, but it could create a route for communicating with other city councils to share different experiences."

- Opposition party (DPP):

Since the local government and city council are controlled by the ruling party (KMT), several members said that it would be necessary to balance this by involving the opposition (DPP):

"The opposition political party raises issues to challenge the ruling party. The ruling party should give up its dictatorial fashion of using the city council as a rubber stamp." (DPP councillor candidate)

"Unequal power distribution in Taiwan's political situation can be improved in local government by means of involving different parties in reasonable argument forums." (research student)

"It is difficult to get compromise between different political parties, in particular sensitive issues on governmental policies. Thus, it is better that different stakeholders from each party should be invited to the project to express their own views." (SG of TCC)

"Political issues are sensitive in TCC. This project should involve different party stakeholders, otherwise the opposition might argue that it is merely a means of improving the ruling party's control." (The Speaker)

- Tainan city government:

It is important that TCC can be seen as a benchmarker for policy makers by transforming other's views on city affairs.

"TCC should consider cooperating more with local government and more efficiently producing audit reports to central government." (local government official)

"TCC is an auditor to Tainan city government. Any change in TCC will directly affect local government operations. Moreover, it is a good idea that TCC can set a good example for Tainan city government in terms of operational efficiency." (the Speaker)

- Central government:

"The central government should be informed about and involved in the project. The central government could dismiss the change proposals if they are against the law. However, if the pilot case study succeeds, then the central government could modify the current council structure by changing the law." (the Speaker)

"The council structure was designed in 1950. It is time to rethink whether the structure is able to cope with current change in terms of democratic progress and economic growth." (research student)

- TCC's employees:

Citizens and lower level employees do not usually have opportunities to express their views on how government organisations should operate in order to meet their needs. However, in this case they were identified as key stakeholders.

"TCC's change could directly affect current working methods for most TCC's employees. This raises a question about whether employees will need to be retrained and change their routine working schedule. Therefore, lower level employees need to be involved in the project." (Leader of Agenda Section)

"TCC's temporary contract employees might be affected by change." (SG of TCC)

- Citizens:

"We should listen to what citizens really want; citizens are the real stakeholders in this city." (reporter)

"TCC and councillors are only concerned with their own interests. Power and money dominate the procedure of submitting petitions. If the Speaker really wants change and to improve TCC's performance, he should consider citizens' leaders' views on TCC's current problems." (community leader)

"If TCC can change its current working methods and organisational structure by improving its performance, then tax-payers will save money." (the Speaker)

- The ruling party (KMT):

"The ruling party could lose its currently dominant position in policy making, if sensitive information were opened up to the opposition." (Research student)

- Candidate for the next council election:

"In any change in TCC, whether for good or bad reasons, the Speaker should consider his successor." (the council candidate)

- The Mayor of Tainan city:

"The Mayor should consider changing the local government structure in order to incorporate TCC's proposed changes." (the SG of TCC)

"A well organised TCC can prevent the Mayor from using his power to influence TCC's operation through his personal relationship with councillors." (the DPP councillor candidate).

- Councillors:

"Councillors might get better service if TCC is more efficient." (KMT councillor)

"Councillors should be seen as major customers to TCC. The major functions of TCC are to provide facilities and human resources for councillors to conduct their annual meetings." (DPP councillor candidate)

- TCC's employees' families:

"Changes in TCC might affect employees' contracts (in particular, temporary employees), which could affect and change their families' lives." (Leader of Agenda Section)

- Media:

"The media should not be directly affected by changes in TCC. However, if the change can bring better access for the media, they will benefit." (newspaper reporter)

- The Speaker:

"The Speaker could benefited from the change, because he wants to reorganise TCC's structure in order to meet his personal requirements." (DPP councillor candidate)

"The Speaker can easily implement his policies through his own ideal organisational structure and reallocate employees' jobs." (SG of TCC)

- Equipment providers:

"It might be good for equipment providers, if TCC changes its bureaucratic structure to deal more effectively with business people." (Leader of Agenda Section)

After two hours of discussion, the members of the workshop understood the significance of each group of stakeholders. Because of time constraints, the PME-practitioner then decided that voting should be used to identify the six most "relevant" groups. A secret voting method was devised, where people identified their preferences on paper and handed this to the PME-practitioner. In the first round of voting, 4 stakeholders got more than 5 votes and were automatically included. The workshop was then asked to vote again, to identify another two groups. After the second round of voting, the six groups of most relevant stakeholders were identified. This list was then discussed by the groups: numbers of representatives were decided, and a reason for their inclusion was recorded on a flipchart.

- The Mayor & Local government official (2):

The Mayor represents the political view of local government. The local official's views would be needed because civil servants have responsibility for transforming TCC's policies into practice.

- Central government official (1):

The central government official would be able to say whether proposed changes are against the law. He would also be able to explain how the central government might help the local council to improve the current situation.

- Councillors (1 from ruling party (KMT), 1 from opposition (DPP)):

Either political party could affect the success of the proposed changes if it took a stand against them.

- Citizens (10) (2 business people, 5 ordinary citizens, 2 leaders of neighbourhood communities, 1 candidate for next council election):

- 2 business people were requested to represent commercial interests.

- 5 citizens who had presented petitions to TCC were requested to reflect TCC's relationship with the public.
- 2 leaders of neighbourhood communities with experience of dealing with both citizen groups and TCC were requested.
- 1 candidate for the next council election was requested to present his views on how to improve TCC's services, especially in terms of solving conflicts between local government and citizens.

- Employees in TCC (The Secretary General, 1 section leader, 1 senior employee, 1 junior temporary employee):

These four employees represent all levels of seniority in TCC. It was expected that senior employees could resist change because they have got use to traditional working methods. In contrast, temporary and junior employees tend to challenge the current organisational structure and working methods.

- Media reporter (1):

The media usually reports daily events occurring between Tainan city government and the city council, and reporters are aware of a variety of stakeholder views.

In terms of recruiting specific individuals to participate in the PME process, the PME-practitioner contacted the SG of TCC to gain assistance in terms of names and addresses of potential interviewees. First, potential interviewees were approached informally (by telephone). The final selection of interviewees out of those approached informally was based on my perception of the ability of the individual to represent a particular group's views. Formal letters of invitation were issued to the required number of participants (as specified in the previous workshop). Because of time and financial constraints, some workshop members were also used as interviewees.

11.8. Surfacing Three Perspectives (and Sub-perspectives) on TCC and the VSM.

This phase aimed to surface basic assumptions and views about TCC and the VSM, as expressed in the candidate methodology itself; by the methodology-user; and by the various organisational and environmental stakeholders.

11.8.1. Methodology analysis.

The purpose of methodology analysis is to ask "How does the candidate methodology look at the society?"; "What does the candidate methodology want an organisation to be?"; "How does the candidate methodology help an organisation to achieve its desired status?". In TCC's case, the VSM had been recommended by the Speaker. According to PME (Chapter 10), the PME-practitioner, at this phase, aims to present the candidate methodology from a perspective as close to that of the original author(s) as possible. In addition, "boundary questions" are used to assess the candidate methodology.

There are several texts which discuss the VSM's original assumptions (Beer, 1974, 1979, 1981, 1985).

11.8.1.1. Assumptions underlying the VSM.

Beer (1974) sees social institutions thus:

"A social institution is not an entity, but a dynamic system. The measure we need to discuss it is the measure of variety. Variety is the number of possible states of the system, and that number grows daily, for every institution, because of an ever-increasing range of possibilities afforded by education, by technology, by communications, by prosperity, and by the way these possibilities interact to generate yet more variety. In

order to regulate a system, we have to absorb its variety. If we fail in this, the system becomes unstable." (Beer, 1974, p.21)

To design a viable mechanism, Beer therefore used the concept of "cybernetics", which is explained by Wiener (1948) as "the science of control and communication in the animal and the machine". Beer (1974) views cybernetics as "the science of effective organisation." (p.13) An organisation faces a mess of variety because of the complexity of the environment. In order to deal with such a mess, the organisation has to increase its capabilities by creating a neurocybernetic mechanism (Beer, 1985).

However, this brings with it the danger of abuse of the freedom of individuals in the organisation:

"In order to maintain viability, the total system must have a central regulatory model. This model ought to be created by democratic consultation, but we cannot dodge the truth that it will constrain variety in the parts. (1974, p.79)

From Beer's point of view, "freedom" should be designed and controlled in order to reduce variety and achieve organisational stability.

"The freedom we embrace must yet be "in control". That means that people must endorse the regulatory model at the heart of the viable system in which they partake, at every level of recursion." (1974, p.88)

"Recursion" (mentioned in the above quotation) means that every viable system is part of a larger one and contains smaller ones. As Beer (1975) describes it:

"This (the principle of recursion) says that all viable systems contain viable systems, and are contained within viable systems. Then if we have a model of any viable system, it must be recursive. That is to say, at whatever level of aggregation we start, then the whole model is rewritten in each element of the original model, and so on indefinitely." (p.427)

Based on cybernetic concepts, Beer (1981, 1985) proposed the Viable System Model (VSM). Beer claims that the VSM is a useful model to improve an organisation's control systems (Beer, 1981). This model can also be used to create a reasonable structure which will allow workers to participate in improving communication within the organisation. Beer claims (1985) that any viable system has five necessary and sufficient subsystems (Figure 11.6).

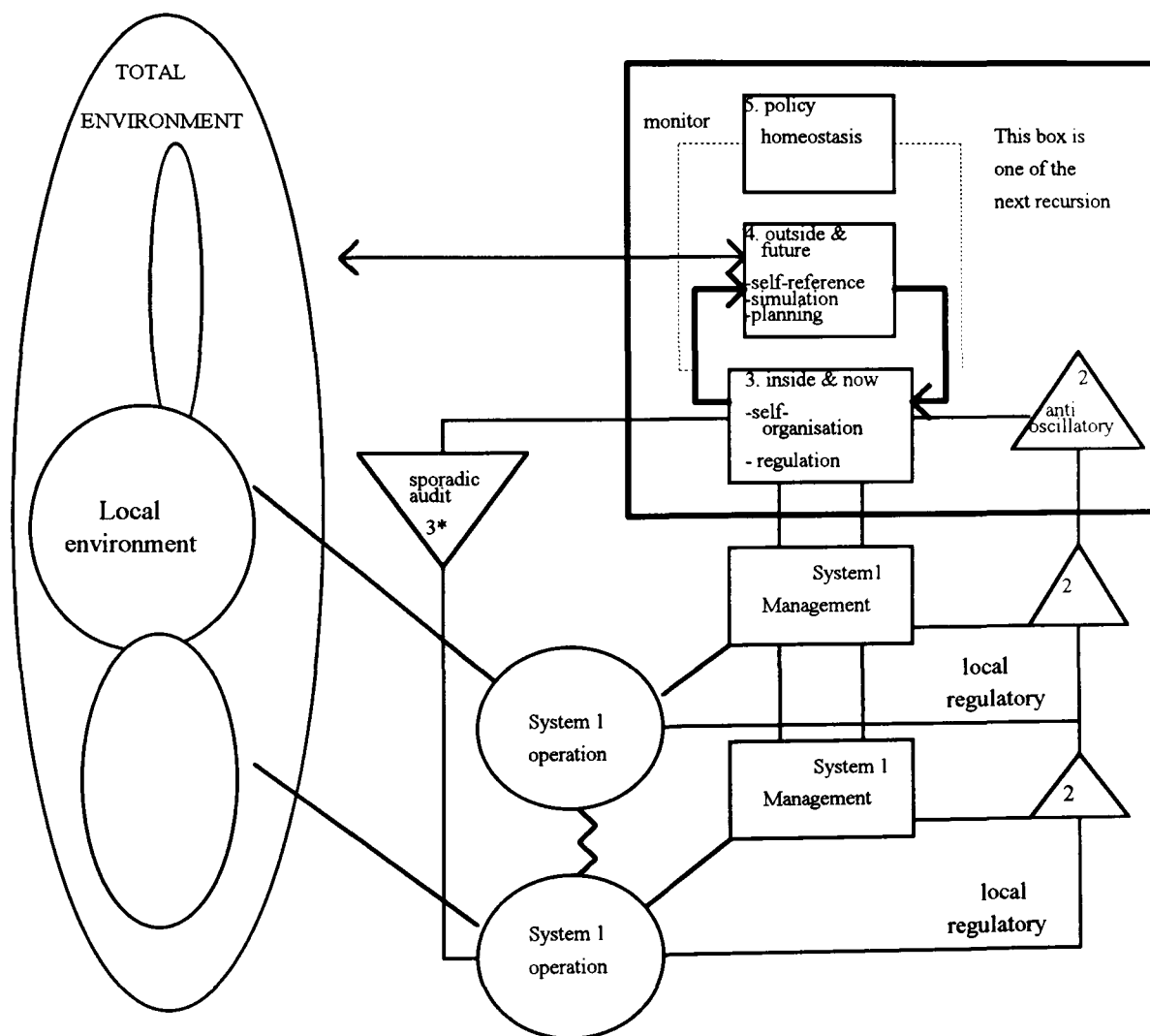


Figure 11.6. The Viable System Model
(source: Beer;1985, p136)

- System 5: Responsible for policy-making and balancing internal and external demands. It receives information from both system 4 (intelligence) and system 3 (day to day management) to design organisational strategy.
- System 4: An information collector and transducer. Internal and external information is translated, filtered and passed to system 5. System 4 is not only concerned with gathering intelligence about the environment, but also provides self-awareness of the system-in-focus (Beer, 1985, p.115).
- System 3: Responsible for the internal and immediate functions of the system: it is 'here-and-now', day-to-day management (Beer, 1985, p.86). System 3 is a control function which interprets the organisation's policies derived from systems 4 and 5 for implementation by the system 1s (operational systems).
- System 2: The viable system's anti-oscillatory device for harmonising the activities of the various system 1s (Beer, 1985, p.66). In other words, System 2 is a co-ordinator (regulatory centre) in the VSM.
- System 1s: These are the operating units, which should be autonomous in their own right, concerned with implementation of the organisational policies. Each system 1 is also a viable system that should exhibit the five functions referred to here. System 1s can decide how to deal with change in their local environment, but such autonomy depends on pre-determined organisational policies.
- System 3*: can be seen as an auditor, which audits the system 1s' performance to see whether they have followed the pre-determined organisational policies. The system 3* passes such information to system 3.

From Beer's point of view, a viable system is like the human body, which can keep its temperature stable, so that humans can live in different environments (Beer, 1989a). In cybernetic science, the VSM achieves such regulation by providing negative feedback, by means of a meta-system such as systems 2 and 3, in order to ensure that the total system stays on target to achieve its goals - which are set in an environmentally sensitive manner. Moreover, the VSM builds communication channels between each functional level that can provide information from the system 1s to systems 3,4 and 5, or pass commands from system 5 to systems 4,3,2 and 1. The VSM communicates with the environment through systems 1 and 4; this can reduce environmental variety and can increase system variety.

11.8.1.3. The design and diagnosis process of the VSM.

Beer (1981) indicates that:

"The model is intended for use as a diagnostic tool. We map the extant organisation onto the model, and then ask whether all parts are functioning in accordance with the criteria of viability, as these have been set forth in neurocybernetics." (p.155, underlining in the original)

The VSM can be seen as a pattern of an ideal cybernetic organisation that gives guidelines for organisational design and diagnosis. The following process is based on Beer's "Diagnosing the system for organisation" (Beer, 1985).

1. Identify the "system-in focus", an organisation which is to be studied.
2. Identify "recursion one" and "viable systems".
3. Use VSM's model to annotate each sub-system of the system-in-focus, and find out how departments fit into the VSM's boxes.
4. Study the system 2 of the system-in-focus.

5. Study the system 3 of the system-in-focus.
6. Study systems 4 and 5 of the system-in-focus.

Basically, this is a checklist for evaluating whether an organisation fulfils all the necessary functions for viability according to the VSM design.

11.8.1.4. What does the VSM want an organisation to be?

Beer (1979) sets four principles for organisation:

1. The first principle of organisation.

Managerial, operational and environmental varieties, diffusing through an institutional system, tend to equate; they should be designed to do so with minimum damage to people and cost (p.97).

2. The second principle of organisation.

The four directional channels carrying information between the management unit, the operation, and the environment must each have a higher capacity to transmit a given amount of information relevant to variety selection in a given time than the originating subsystem has to generate it in that time (p.99).

3. The third principle of organisation.

Wherever the information carried on a channel capable of distinguishing a given variety crosses a boundary, it undergoes transduction; the variety of the transducer must be at least equivalent to the variety of the channel (p.101).

4. The fourth principle of organisation.

The operation of the first three principles must be cyclically maintained through time without hiatus or lags (p.258).

These organisational principles show how an organisation should perform and be managed:

"Although there is no point in asking the enterprise to change all of its organisational terminology into this language (neurocybernetic language), merely for the sake of erecting a bronze engraving of 'a cybernetically organised company' in the foyer, it does sometimes turn out to be helpful to bring established departments and their interconnexions more into line with the cybernetic model. What the firm decides to do about this will largely depend on the diagnosis itself, and that is a matter of strictly local relevance." (Beer, 1981, p.156)

The description of the VSM presented above was based on my review of Beer's writings, and was used as the basic material for informing the stakeholders in TCC about the VSM (see later in this chapter).

11.8.1.5. Using "Boundary questions" to assess the VSM.

After the literature review, "boundary questions" were used in the "ought" mode to examine the VSM in terms of Churchman's (1979) and Ulrich's (1983) of four dimensions (motivation, control, expertise and witnesses) to expose the methodology's views on an ideal organisation.

- Source of motivation: What ought to be the VSM's purpose?

Beer (1989b) argues that the primary purpose of an organisation is to preserve "identity" - in a word, to "survive". The VSM is designed to achieve organisational viability and improve organisational efficiency - and hence its survival prospects. It is designed to improve the organisation's internal and external communications, and thereby enhance the organisation's competence to deal with environmental disturbance and internal conflicts.

Of an ideal, successful organisation, Beer (1979) said that:

"...if the laws governing the structure and dynamics of any viable system are valid, then all successful enterprises will be found to respond to those laws. They may nonetheless

respond too slowly, too hesitantly, too uneconomically; too formally or too aggressively or too anarchically." (p.439)

He further explains the meaning of "too" as:

"Too whatever for maximum benefit - whether profitably, satisfaction, or general ease: in a word, of eudemony (or well-being). Every one has the personal experience of achieving something that works: with satisfaction, but with the realisation in hindsight that it could all have been done with much less stress and strain." (p.439)

In fact, the concept of recursion in the VSM shows that the organisation's internal components are served by an efficient organisational structure. External organisations and individuals can also be benefited by the viable organisation, since the viable organisation is co-ordinated by a next higher level system which can indicate where and how to cooperate with other organisations, if they are also viable systems.

- Source of control: Who ought to be the VSM's decision maker(s)?

According to the VSM, system 5 is the policy maker which receives information both from system 3 (about the internal state of the organisation) and system 4 (which receives environmental information). System 5 judges the internal and external information and makes decisions for the whole system.

However, system 5 should not be seen as "the ultimate authority" in the system (Beer, 1985, p.128). "The fact is that in a viable system all five subsystems are dependent on each other." (1985, p.128). System 5 does not have a special primacy. Then, the decision maker in a viable system is all five subsystems.

Of course, policy making is a vital function. But Beer (1981) reports his experiences in Chile that "...the system Five...was in fact the people." He means that the

organisational policy maker (system 5) need not actually be any particular person. System 5 is a *function*, not necessarily an individual human being.

- Source of expertise: What ought to be the role of expertise in the VSM?

Beer (1979) says of the relationship between the manager and the management scientist,

"Only the manager is entitled to take the decisions. It is the duty of the cybernetician to press his expert view; but he must not bully or cajole beyond the threshold of the manager's personal accountability." (Beer, 1979; p.440)

The role of the VSM expert is to help managers build a viable organisation. However, to maintain a viable organisation, the managers (decision makers) should then internalise and follow the design of the VSM. This suggests that knowledge transfer in the VSM is essentially one way: from experts to managers. Beer (1983) acknowledges this, saying that

"As to the role (of cybernetic experts), the science of effective organisation will always have knowledge to share in the practice of management. As to the responsibility that sharing involves, it is inescapable." (p.119)

Ulrich (1983) argues that this attitude elevates cybernetic science to the status of guarantor:

"The rational designer who regards himself as a scientist will quite naturally tend to take his science as the best guarantor he can hope for." (p.369)

He then expands on this, saying that, for Beer, cybernetic modelling provides "universal structural properties of the world's functional organisation", and the computer is the "absolute guarantee for logical truth". (p.369)

- Witnesses: Who ought to be affected by the VSM, and who should or should not be involved?

The VSM is concerned with an organisation's internal competence to cope with environmental disturbances. Beer does not clearly indicate the intended impact on stakeholders who are affected but not involved in the VSM design. In particular, for environmental stakeholders, it is simply assumed that they belong to parallel viable systems.

It is the case, however, that system 4 receives information from environmental stakeholders. This information can be transferred to the VSM decision making chamber that will consider the total environmental reaction to the organisation's operations.

"There is a second major component of input to top-level decisions information about the environment set by the outside world, the total environment of the organism that is the firm. All indications of relevance here are collected by System Four as direct input from the outside world, and they too are switched into System Five." (Beer, 1981, p.181)

While the VSM claims environmental sensitivity, there are no specific requirements for the involvement of environmental stakeholders in organisational decision-making.

This methodology analysis (or rather a Chinese translation of it) was fed into the triangulation phase of PME.

11.8.2. Analysis of the Organisation and Environment.

At this stage, the current organisational situation and its dominant ideology needed to be exposed. It was obvious that TCC's stakeholders might have different ideological views, and that the currently dominant ideology and situation might not satisfy TCC's stakeholders; if not, what did they want TCC to achieve? To answer such questions would indicate what TCC "ought to be" in the future. Moreover, it was important to surface TCC stakeholders' views about whether the candidate methodology (the VSM) could help TCC to achieve an ideal situation in any or all of their eyes.

Here, some questions (Table 11.1) were designed, based on Critical Systems Heuristic's 12 questions (Ulrich, 1983, 1986), and incorporating a metaphor analysis. These were used to reveal what the difference was between the "is" and "ought" of the organisation, so that an initial judgement could be made whether the VSM would be able to deal with such a situation. The analysis of the VSM presented earlier (but not my answers to the boundary questions) was translated and written as an introduction booklet for the interviewees. Moreover, the PME-practitioner gave more explanation to each individual interviewee.

1. What is (ought to be) TCC's purpose?
2. Who is (ought to be) TCC's customer?
3. What are the most important issues in TCC?
4. Who is (ought to be) the decision maker in TCC?
5. What ought TCC to be, if you are not satisfied with current situation?
6. Do you agree that the VSM can improve TCC's performance?
7. Who will benefit, if TCC improves its performance using the VSM?
8. Who will be victims, if the VSM is used to intervene in TCC?
9. What is TCC like? (describe it by using one "metaphor")

Table 11.1. Questions for the Interviewees

These questions were addressed to the stakeholders through semi-structured interviews. 20 relevant interviewees had already been selected (based upon the previous work and my own subsequent inquiries). They represented different interests, and (in the eyes of earlier workshop participants) had important viewpoints on TCC and the VSM. Because of time constraints, the central government official was only interviewed by post. The questions for this person were different from those for the other interviewees. They did not ask the official's view of TCC, because he could not be expected to discuss in detail a particular council's situation. Rather, the aim was to find out the central government official's views on city councils in general. The questions that were presented were as follows (Table 11.2):

1. What are the purposes of a city council?
2. Who is served by city councils?
3. Who are the decision maker(s) in city councils?
4. Do you think that the current organisational design in city councils is suitable? If not, what is your preference?
5. Do you agree that the VSM could be used to improve performance or change a city council's organistaional structure?
6. Who will benefit, if the city council improves its performance?
7. Who will be the victims, if the VSM is used to intervene in a city council's operations?
8. What should a city council be like? (describe it by using one "metaphor")

Table 11.2. Questions for the Central Government Official

The booklet of explaining the VSM was sent with the questionnaire to the interviewee. The central government official was also told that the VSM had been suggested by the Tainan city council Speaker, who intended to use it to improve the council's performance.

11.8.2.1. Stakeholders' views on the current status of TCC.

Through the individual interviews, the PME-practitioner revealed that the organisational and environmental stakeholders saw TCC from different points of view, and many differences were found between the current and ideal organisational situations in various stakeholders' eyes. The following is a summarised account:

- **What is TCC's current situation?**

According to the semi-structured interviews conducted by the PME-practitioner, interviewees' views were as follows.

- What is TCC's purpose?

This question was answered in many different ways. However, most interviewees could not precisely point out TCC's purpose. TCC's employees stuck to the original purpose laid down by the central government. One said:

"TCC is a place for the council budget meeting, Therefore its purpose is to provide a service for councillors." (senior TCC employee)

The central government official also made it clear that the council's main role is to assist councillors during annual meetings. However, the Mayor was more concerned with his budget plan and citizens' rights:

"TCC's job is to cooperate with local government to improve citizen's living standards by approving its budget and planning for the future." (the Mayor)

Others, such as KMT and DPP councillors, focused on their personal interests in terms of how to please their voters. One said:

"TCC should put more effort into solving citizens' problems and improving their living standards, in particular by imposing stricter control on the local government's budget."
(KMT councillor)

Citizens, who were not employees, had a different point of view. They said that TCC helps the councillors to look after tax-payers' money.

Since the Speaker belongs to the ruling party, he claimed that he has to follow the party's decisions with regard to the function of TCC. However, the DPP councillor put a different slant on this (nevertheless acknowledging the relationship between the Speaker and his party):

"It is a tool for the Speaker to achieve his personal interest. Most of TCC's operations are done because of the Speaker's wishes. However, the ruling party puts too much pressure on the Speaker." (DPP councillor)

From these answers, it is obvious that different stakeholders have different views on the purpose of TCC's existence.

- Who are TCC's customers?

This question was designed to find out whose interests are served by TCC. During the interviews, the PME-practitioner had to explain the meaning of "customers"; i.e. who TCC serves, and/or who TCC deals with most. Three types of customer were identified by the 20 interviewees:

- Councillors: identified by TCC's employees, the KMT councillor, the media reporter and the central government official.
- The Speaker: identified by TCC's employees, the business people, and the DPP councillor.

- Citizens: identified by councillors (both parties), the Mayor, the community leaders, and the candidate for council election.
- What are the most important issues in TCC?

From the interviews, it appeared that many issues and conflicts existed in TCC. These were mostly to do with politics and power. However, the Mayor was concerned with the efficiency of the council meeting which was important to his budget planning. He addressed the issue thus:

"Efficiency is the most important issue. Most councillors spend too much time on argument because of their personal interests." (Mayor)

Such political/power issues also affect TCC's operations, such as personnel recruitment. The SG pointed out:

"Personnel problems are the main concern in TCC, since too many temporary jobs are gifts given to people who have a good relationship with the Speaker."

However, a senior employee in TCC worried about his promotion prospects and argued that:

"The "bureaucratic promotion system" needs to be changed. The current promotion system has been designed by the central government's regulations and they are not under the control of the owner of TCC (Mr. Fang). The bureaucratic structure lacks the flexibility to deal with internal and external conflicts. Everything has to be solved according to the government's regulations." (senior TCC employee)

Other interviewees, such as a community leader and several business people, talked about quality of service and TCC's response to citizens' petitions:

"Government bodies do not provide a good quality service. The bureaucratic promotion and protection system is the main issue. Moreover, citizens cannot be treated well, because TCC does not have any section which is responsible for citizens' petitions." (community leader)

One citizen complained that TCC did not correctly categorise all the various petitions and pass them to the relevant councillor. Thus, citizens do not always receive a response from TCC.

However, the candidate for council and the media reporter put more emphasis on political issues that raised conflicts between the Speaker and councillors.

"The most important issue in TCC is politics. It is a political arena for different parties and councillors. TCC should emphasise providing better communication channels between the local government and TCC." (media reporter)

This issue was also mentioned by the KMT and DPP councillors.

In TCC, it appears that little discussion of political agendas is possible. TCC's employees are asked not to talk about individuals' political inclinations. Some opposition councillors (who do not belong to the ruling party) cannot receive full help from TCC. Therefore, obviously, most stakeholders believed that political issues and organisational efficiency were the main problems in TCC.

- Who is the decision maker in TCC?

The Speaker was regarded by TCC's employees as the main decision maker. Moreover, because he chairs the council meetings, the ruling party councillor agreed that, in effect, the Speaker has the power to decide TCC's strategies. However, the DPP councillor did not think that TCC's policies should be discussed and made by the council meeting; he believed that only day-to-day operations should be supervised by

the Speaker. He also complained that his party's rights were not taken into account when the Speaker made decisions. The Speaker was acting in his own party's interest.

Clearly, the Speaker is viewed by all stakeholders as the main decision maker in TCC. In fact, in accordance with LOLG, he has the power to terminate TCC's current plans and substitute his own ideas if he wishes. According to the government official, he therefore has ultimate authority.

- What is TCC like (describe it using one "metaphor")?

The PME-practitioner first had to explain the meaning of "metaphor", while being careful not to lead the interviewees. Some were afraid to answer this question truthfully. It seemed to me, for the first time during the PME process, that TCC's employees might be regarding me as an inspector who would discuss their loyalty with the Speaker. This was obviously a more sensitive question than I had realised. Therefore, I had to listen to how the employees described TCC and reflect back their description in metaphorical terms to help them to answer. Finally, I asked for confirmation that the metaphors I had suggested were correct. The metaphors provided by the stakeholders were as follows:

- *A place of safety*: there are no worries about being sacked, but it is difficult to get promotion. The employees regarded TCC as a "safe-place" because their jobs are protected by the government.
- *Old, disabled pensioner*: inefficient and wasting tax-payers' money. Most citizens, including the media reporter and the community leader, said that TCC did not immediately respond to enquiries and provide a quick service to citizens.

- *Political arena*: both the KMT councillor and the DPP councillor said that their rights were controlled by the Speaker and their party. Occasionally, in order to seek compromise between the two parties, the councillors had to go against what they really believed. They described making compromises as a "black hand" because these compromises were always in the party's interests.
- *Service provider*: the Mayor saw TCC as a service provider in that TCC provides a service to city councillors and accepts petitions from citizens.
- *Information centre*: TCC is an auditor for the local government's policies and budget. Thus, one business person viewed TCC as an information centre for finding out about confidential agendas so as to plan more effectively.

In summary, the beneficiaries of the current situation felt that the most important driving forces in TCC are "stability" and "safety". However, the interviewees representing environmental stakeholders viewed TCC's current situation as "bureaucratic" and felt that "inflexibility" and "political power" are the main issues. The Speaker was regarded as the major decision maker in TCC by all the interviewees.

- **What ought TCC to be?**

The "ought to be" questions encouraged stakeholders to think differently. They were also a means to understand the interviewees' ideal future for TCC. However, because of the problems of translating Critical Systems Heuristics into Chinese, some interviewees were confused and could not clearly tell the difference between the two modes. So, if the PME-practitioner found that they gave the same answer to the "is" and "ought" questions, he had to check the answers again. While this caused some

difficulties, I am satisfied that all the responses gained from the interviews did eventually reflect genuine differences between "is" and "ought".

- What ought to be TCC's purpose?

It was suggested by the councillors and community leaders that TCC should provide communication channels between citizens and local government. Thus, in their eyes, TCC is an organisation that should aim to create an ideal space in which citizens can present their ideas and make suggestions to the local government. TCC should therefore be designed for citizens and citizens' representatives (the DPP and KMT councillors). The media reporter argued that TCC should aim to communicate local citizens' requirements to central government. Moreover, he added that TCC could also be an information centre for storing information on past decisions, and this could be made available to the public. However, the Mayor still stuck to the official answer that TCC should be an organisation providing necessary support to councillors, accepting citizens' petitions, and acting as civil ambassador for the city (in this sense, there was no difference between his "is" and "ought").

In my view, these "ought" responses are not radically different from the role of TCC as given in LOLG. They suggest that the broad purpose of TCC, as currently defined, is acceptable to stakeholders - but the emphasis in the "ought" responses is on good quality communications, while the "is" answers indicate that the original purpose of the organisation to facilitate this communication is being subverted by individual and party political interests.

- Who ought to be TCC's customers?

For this question, there was not much difference between the "is" and the "ought". Most interviewees regarded councillors and citizens as being the main customers of TCC in their ideal scenario. However, the junior TCC employee thought that local

government officials could also be TCC's customers given that, in an ideal world, civil servants in TCC and local government could work together more co-operatively.

- Who ought to be TCC's decision maker?

There were two types of decision maker identified by interviewees: the Speaker and councillors. Councillors were actually identified as potential decision makers only by themselves. After the PME-practitioner had explained the meaning of the "ought" mode to the interviewees again (given the problem of translation mentioned earlier), it was interesting to find out that TCC's employees still believed that the Speaker should be the prime decision maker in TCC. However, the junior employee suggested that more participatory decision making should be introduced, and the Speaker should listen to what the employees actually need.

The opinion that the councillors should also be seen as decision makers was generated by the councillors themselves, who pointed out that the Speaker is elected by them. Thus, the councillors are like shareholders who should be seen as having the power to make long-term decisions for TCC. The candidate for council considered that the role of the Speaker should be neutral, and the Speaker should focus on improving the quality of the council meetings. This view was also put forward by the media reporter and the Mayor. Even though the Mayor also belongs to the ruling party, he said that:

"The council meeting represents all the citizens of Tainan, therefore the Speaker should not get involved with conflicts between different parties. He should be the leader of TCC and concentrate on TCC's administration."

- What ought TCC be, if you are not satisfied with the current situation?

The following were suggested as desirable states of affairs for TCC in the future. Considering the previous performance of TCC, the business people and community leaders were primarily concerned with the effective use of tax-payers' money. They

believed that the councillors could do better by means of improving information, and collection of opinions from citizens. One community leader argued that:

"TCC should play the auditor to check the local government's budget carefully. It is TCC's responsibility to provide correct data and information to councillors. Moreover, minutes of previous meetings should be regarded as important references that prevent subversion of decisions in subsequent meeting. Such information should be systematically kept and be open to citizens."

Both DPP and KMT councillors agreed that TCC should computerise the minutes of previous meetings so that they could easily gain up-dated information. They also complained about the current working conditions of TCC, and suggested that there should be more space for the annual meeting and research for councillors.

The candidate for council focused on how TCC could change its attitude to citizens. He gave a list of four things that, in his view, TCC should do:

"Provide a more friendly service to citizens. Improve TCC's efficiency in dealing with citizens' requirements. Be more open to the general public. Tell citizens what TCC can do for the public."

The SG indicated that TCC should not deal with political issues; he thought that TCC should be neutral in providing a service to both councillors and citizens. He also noted some points similar to those made by TCC's employees namely:

"Improve working conditions. Create proper communication channels between lower level employees and the managers." (SG of TCC)

Both senior and junior employees also accused the Speaker of not encouraging open discussion. However, they wanted "open discussion" to be confidential and not be like a "round table" discussion. The Mayor still showed his preoccupation with budget-

setting and planning, although he believed that communication channels should be created between TCC and local government, and greater mutual understanding should be achieved. The employees also talked about stability of employment. They emphasised that, whatever changes were made to reorientate TCC, these should not be allowed to threaten job security.

To summarise the "ought" responses, we can identify the key "driving forces" that stakeholders believe should be moving TCC towards the future. These are "flexibility" and "safety". Flexibility is needed because the bureaucratic administration system cannot satisfy environmental stakeholders' requirement; for good quality, open communications. However, it is clear that employees continue to value their safe employment. There is therefore a tension, indicating that TCC's employees might have to change their attitude if they are to meet environmental stakeholders' requirements, or environmental stakeholders might have to change their expectations if the status quo is to be continued. It is not the job of the PME-practitioner to make normative recommendations at this stage. It is sufficient that the issue is identified for further discussion by stakeholders.

11.8.2.2. Stakeholders' views on the VSM.

Before the views of stakeholders on the VSM could be gathered, the PME-practitioner had to introduce them to it. Originally, I had planned to hold a single workshop to discuss the VSM, but logistical problems prevented this. It was impossible to co-ordinate everybody's diaries in the limited time available. Thus, I explained the candidate methodology and collected interviewees' responses individually. I set out to show:

- How (in Beer's terms) the VSM helps organisations to deal with their problems.

- Why the VSM had been chosen by the Speaker as a methodology to deal with TCC's problem.

The PME-practitioner had to be aware not to mislead the interviewees: my role was to explain the original views on the VSM as expressed by the methodology creator (Stafford Beer). Questions about the VSM followed discussion with the interviewees' on TCC's current situation.

- Do you agree that the VSM can improve TCC's performance?

TCC's employees are stakeholders who will be directly affected by any organisational change, so their responses are provided first. The junior employee focused on organisational control, rather than the improvement of performance. He said:

"The VSM could be another management fashion that is brought by the Speaker from abroad. However, the TCC might actually be restructured to make it a stronger, stricter audit system. "

However, the senior employee showed no interest in the VSM and said:

"As I understand it, it could be another game because usually any new scheme has no more than three days life."

This employee had seen many previous Speakers try to change TCC's structure and attitudes by means of several management methods, but (in his eyes) they had ultimately failed.

In contrast, the SG regarded the VSM as a good model in terms of structural design and a stricter control system. He said:

"According to the model, low level managers can have flexibility to deal with their own environmental variety. It could be a good idea to redesign TCC's structure and improve its communication and control channels."

The community leaders and business people were concerned with the possibility for every TCC section to have better connections with the public and provide quicker responses to their enquiries. They therefore saw that using the VSM might be beneficial. The KMT councillor focused on resource relocation and argued that TCC's redesign should focus more attention on the Agenda section. Nevertheless, he thought that the VSM would improve TCC's policy implementation. However, the DPP councillor was concerned with power struggles. He said:

"The ruling party intends to restructure and control the citizen's representative organisation and use its citizens' resources by using a strict structure to increase the Speaker's power."

In contrast, the media reporter appreciated the possibility of a change in the government organisation. He expected it would enable him to gain information more quickly, without needing permission from the Speaker, because the section leader would be able to make decisions.

The central government official noted that the organisational structure could not be changed locally, but he welcomed the change and regarded the VSM as a good design for an organisation. My interpretation of this seemingly contradictory statement (I could not check this with the respondent because communication was by post) is that the central government official had to enforce the regulations with regard to council structure, but appreciated the need for change. If I am right, then Mr. Fang's belief that the structure only had to remain the same on paper was probably justified.

- Who will benefit if TCC improves its performance?

The opposition councillor regarded the VSM as another tricky game played by the Speaker to improve his power base and pursue his personal interests, so from his point of view the Speaker would be the big winner. Nevertheless, other interviewees such as the KMT councillor, junior employee and the business people viewed the change positively. They thought that citizens, councillors and other local governments could benefit from the change, although they also believed that the Speaker would end up being more powerful than before.

The Mayor indicated that if TCC could improve its performance successfully, the beneficiaries would be citizens. He also hoped that the local government could benefit in terms of improved cooperation with TCC, because currently misunderstandings waste time (e.g. when checking and approving budgets and development plans). However, the Mayor was sceptical about the ability of the VSM to deliver, but said he was prepared to support any change made for good reasons.

- Who will be victims, if the VSM is used to intervene in TCC?

Most interviewees could foresee that the change would have some impact on them. However, they could not precisely point out who/what would be victims. Some issues such as changes in working style were raised by TCC's senior employee. The senior employee was afraid that the new system might bring more work and destroy the working style currently enjoyed. Moreover, in his experience, change brings disturbance of life more generally. The senior employee said that he did not want too much change: he had got used to the system, although he was not entirely happy with the current situation.

The media reporter in particular was interested in this issue. He said:

"Since most of TCC's temporary employees are protected by their personal relationship with the Speaker, and permanent employees are protected by government recruitment regulation, TCC's employees have lost any awareness of organisational efficiency and job competition.

Among other concerns, the DPP councillor pointed out that the opposition could lose further control of TCC. This view was also argued by the SG, on the basis that ruling party councillors could use TCC's manpower and resources to pursue their personal interests.

In summary, all the interviewees viewed the VSM as a new management structure designed to promote control channels. The PME-practitioner had indicated that the methodology was recommended by the Speaker, who intended to change the current organisational structure and improve internal and external communications. However, although they were not specific about who might be victims, TCC's employees clearly did not want much change. This is in line with the idea that "safety" is one of the driving forces currently operating in TCC. It is therefore possible to anticipate that the employees might use passive ways to resist the imposition of a new organisational structure, as is typical in Chinese culture.

11.8.3. Methodology-user analysis.

The methodology-user's analysis aims to find out what assumptions about the candidate methodology and the organisation lie behind the methodology-user's thinking. The methodology may or may not be recommended by the methodology-user, but if the methodology-recommender and methodology-user are same person, it is obvious that the methodology-user assumes that the candidate methodology can and

should be used in the organisation. This can be taken as a starting point. However, if the methodology-recommender is different from the methodology-user, we have to understand what the circumstances of their relationship are, and whether the methodology-user has any views on the candidate methodology.

In TCC's case, the methodology-recommender and methodology-user was the same person: Mr. Fang (the Speaker). The PME-practitioner had to uncover what the methodology-user thought was the current situation in TCC, and what the methodology-user wanted TCC to be. Why did the methodology-user choose the candidate methodology to achieve his purposes? What difficulties could the methodology-user foresee? Detailed questions are listed in Table 11.3.

-
1. From where did you learn about the VSM?
 2. What is (ought to be) TCC's purposes?
 3. Who is (ought to be) TCC's customer?
 4. Who is (ought to be) TCC's decision maker?
 5. What do you think are the main issues in TCC?
 6. Who will (ought to) benefit if TCC improves its performance?
 7. Who or what are (ought to be) the victims of the current situation?
 8. How are you going to judge the success of the VSM?
 9. Have you, or are you going to, discuss the VSM and proposed intervention with other people?
 10. What ought TCC to be, if you are not satisfied with its current performance?
-

Table 11.3. Questions for the Methodology-User

11.8.3.1. The methodology-user's views of what TCC currently is.

The interview with the Speaker was carried out face-to-face and note-taking was used to record information immediately afterward.

- What is TCC's main purpose?

The methodology-user emphasised that TCC aims to look after tax-payers' money and provide communication between citizens and local government. He explained it like this:

"TCC is an organisation which belongs to the citizens. TCC is a watchdog for the citizens; its duty is to improve the local government budget, help in review, planning and control, and ensure citizens' rights are not damaged because of the government's wrong decisions."

- Who is TCC's customer?

The methodology-user regarded councillors and citizens as the main customers of TCC.

- Who is TCC's decision maker?

The methodology-user insisted that the Speaker is the only decision maker of any consequence in TCC.

- What do you think are the main issues in TCC?

In the methodology-user's view, security of tenure leads civil servants to be inflexible in their approach to organisational performance. Moreover, TCC employees do not want to change, because of the bureaucratic promotion system. In particular, this makes it difficult to deal with the far reaching political change which has occurred in Taiwan recently. The methodology-user saw TCC as a bureaucratic mechanism which is designed to serve certain groups of people, such as councillors. TCC employees'

attendance records are not well supervised: thus, tighter control is needed on employees' attendance. Also, the methodology-user said that local government working behaviours compare unfavourably with civil business in efficiency terms. He suggested that "TCC's employees do not properly understand their organisational goals and customers." Moreover, they have inherited their practices from previous employees who told them, "Do whatever you are told to do, but do not change the system." This causes a lack of creative thinking and poor levels of efficiency. Moreover, the methodology-user argued that political issues, such as conflicts between the ruling and opposition parties, affect TCC's administration.

The methodology-user pointed out the following specific issues with regard to TCC:

- TCC's horizontal communication between sections is inefficient.
- Job design is not clear.
- Employees think it is a nice, safe place; they can work until their retirement without worrying about being fired. This is partly because of the civil service culture.
- Who will benefit if TCC improves its performance?

From the methodology-user's point of view, in the short term, TCC could improve its efficiency in terms of time, budget and manpower. This would reduce the employees' workload, because accurate communications would ensure that TCC's goals could be achieved quickly. In the longer term, he believed that citizens and councillors could also receive a better service and would then change their perceptions of local government organisations.

- Who or what are the victims of the current situation?

According to the methodology-user, the direct victims are the councillors. The councillors cannot gain information and manpower to facilitate their investigations. The indirect victims are citizens, since if the local government cannot be audited properly, citizens will have to pay more tax to finance local government's inefficiency and wrong doing.

- What is TCC like? (describe it using one "metaphor")

The methodology-user described TCC as a "partly broken machine". It is still working, but cannot function as it really should.

11.8.3.2. The Methodology-user's views of what TCC ought to be.

Regarding the methodology-user's vision of TCC's ideal future, the following questions were asked:

- What ought to be TCC's purpose?

The methodology-user thought that the official purpose laid down in LOLG should be maintained. Moreover, TCC could play multiple roles to support local government, for example in charity efforts. According to him it should also have a neutral role in solving conflicts between citizens and local government. He also argued TCC should provide better service to the councillors by assisting them in case investigation.

- Who ought to be TCC's decision maker?

The methodology-user insisted that the Speaker should have the sole power to decide on TCC's long term policies and take short term decisions.

- Who ought to be TCC's customer?

The methodology-user believed that councillors should be seen as the primary customers. He said that better TCC performance will mean providing much more efficient service to councillors, which will enable them to control the local government's operations more effectively. He also claimed that citizens should be regarded as customers in the sense that citizens are voters.

- What ought TCC be, if you are not satisfied with its current performance?

TCC should have a clear job-description and procedure to achieve its goals. Moreover, in his view, organisational centralisation would be preferable to decentralisation because it would enable the decision maker and TCC's policies to be implemented more efficiently. The methodology-user also said that TCC's employees should be committed to their jobs and to improving their working spirit, and to facilitate this current working conditions should be improved.

My conclusion from these answers is that, while the methodology-user was concerned with the efficiency of the organisational structure, he was also keen to exert his own personal authority. He seemed to see no contradiction between identifying councillors and citizens as customers, and arguing that he should be the sole decision-making authority. He obviously felt that he already knew what the councillors and citizens wanted. Thus if implementation of the VSM was to go ahead as planned, the potential existed for people to claim that the methodology-user was misusing it in order to pursue his own interests, although he would not see it this way himself.

11.8.3.2. The Methodology-user's knowledge and understanding of the VSM.

The methodology-user had learnt about the candidate methodology during his Masters degree course. However, the following questions were prepared by the PME-practitioner to examine his assumptions.

- How are you going to judge the success of the VSM intervention?

The methodology-user considered that the success of the VSM intervention would be evaluated using a measure of employees' understanding of their job descriptions and their place in the restructured organisation. He also wanted to see the performance of each section of TCC improved, but by this he meant his policies being successfully implemented. However, he did say that customers' complaints would be considered as an indication of the section's performance. Here, he explained that by customers, he meant both internal and external ones. He stressed that if one internal section cannot provide proper information to other sections, TCC cannot achieve its goals. He also said that he intended to set up a control panel to assess each section's performance on a monthly basis.

- Have you discussed the proposed VSM intervention with other people?

The methodology-user was the power owner, and he made it clear that his decision to use the VSM was taken alone. He also said that:

"After two and a half years in the Speaker's position, I believe TCC's structure is unable to deal with the far-reaching, radical change that has occurred in society. It is time to shock the whole organisation and make some change."

- Do you agree that the VSM can improve TCC's performance?

The methodology-user indicated his belief that the VSM offers a perfect organisational structure to improve TCC's communication and control channels. The VSM creates a good mechanism to deal with environmental variety. Moreover, the VSM facilitates

clear job-design and goal-determination for the organisation. Thus, better service will be provided to the councillors and the Speaker's decisions will be implemented quickly and efficiently.

- Who will be the victims/beneficiaries of the VSM intervention?

The methodology-user understood that any intervention would have some impact on stakeholders. He anticipated that TCC's employees would be affected strongly. In the short term, they might have to change their working attitude. However, in the longer term, the employees would be able to see how the VSM could reduce their work load because of improved communications and the empowerment of section leaders. Moreover, citizens and councillors would be treated better and gain a response more quickly.

The methodology-user also identified the Speaker as a beneficiary. He said that the VSM could help him exert tougher control over the activities of TCC. TCC's organisational information channels would be built to provide the decision maker (the Speaker) with quick information from different levels, and would be designed to deliver his orders to lower level employees. This, he argued, would change the "civil service culture", confirming that the employees would be the most directly affected (in their eyes, they would possibly be victims).

It was interesting that when the PME-practitioner interviewed the methodology-user, he sometimes confused his role as Speaker with that of methodology-user. This reflects my earlier argument that if the methodology-user has power, he tends automatically to believe he has chosen the correct methodology for the organisation. In this case, the methodology-user believed in organisational centralisation rather than decentralisation, but he also wanted to empower section leaders. This contradiction suggests that his decisions and assumptions were affected by his personal ambitions

and interests, and that it was difficult for him to separate these from the needs of the organisation.

In the next phase, triangulation of the three main perspectives (and sub-perspectives) was undertaken.

11.9. Triangulation.

The purpose of triangulation is to bring the various perspectives on the candidate methodology and the organisation into dialectical dialogue. In Chapter 10, I mentioned that there are two possibilities for bringing different assumptions into debate: Strategic Assumption Surfacing and Testing (SAST, Mitroff and Mason, 1981) and the obstructive power relations model. In TCC's case, the methodology-user was also the power-owner. In such a situation, PME suggests that the PME-practitioner should act as a mediator between stakeholder groups. The mediator has to report the arguments of each group to the others, and then assemble the feedback for further discussion and decision making. This was done in the following stages.

1. Summarising the assumptions implicit in the VSM, especially its focus on variety management. It's emphasis on the organisation as a whole decision making system was highlighted, with the implication that system 5 should not be seen as the sole repository of decision competence. Also, its focus on environmental sensitivity was covered - acknowledging, however, that there is no specific requirement for the involvement of environmental stakeholders in decision-making.
2. Summarising the views of interviewees, regarding the situation in the TCC and the applicability of the VSM (including whether it could suitably be used in TCC to deal with its current issues and create an ideal future). At this stage, two

stakeholder sub-groups were identified: organisational stakeholders and environmental stakeholders. The PME-practitioner picked up the main issues which were raised during the earlier interviews.

Employees' views on TCC were that;

- it is a bureaucratic system in terms of both operations and promotions;
- there are political issues relating to different parties' interests;
- the Speaker is autocratic in his leadership style.

They viewed VSM as a highly efficient but strict control mechanism which provides well designed communication channels. However, they were afraid that the VSM might be used by the Speaker to pursue his personal interests and increase his power and control.

Other interviewees who were not actually working in TCC had different views on TCC's role and purposes. They regarded TCC's performance as poor in terms of providing information to councillors and citizens. Citizens' petitions did not meet with a good response. There was no proper connection with other government organisations.

As to the VSM, environmental stakeholders welcomed the prospect of change in terms of improving connections with the environment and prioritising concern with citizens' requirements. However, like the employees they thought that the VSM could be used to increase the Speaker's power.

3. Summarising the assumptions of the methodology-user, he assumed that the VSM could improve TCC's communication channels and thereby improve his own control of the organisation so that his policies would be implemented more

efficiently. He was also concerned with other citizens' rights and intended to provide a better service by means of clear job responsibilities for TCC's employees. He understood that the VSM would affect TCC's employees' working style. Nevertheless, he did not realise that because of his position as the vital "decision maker", his use of the VSM might be perceived by others as a misuse.

4. Comparing the above to see if any reconciliation could be achieved. An "ideology scenario" summarising the main issues from the different perspectives (especially highlighting the different "driving forces" of safety versus flexibility that were pulling the organisation in different directions) was produced and presented to both TCC's stakeholders and the methodology-user. However, at this stage, the aim was not to suggest that one ideological driving force was superior or should be dominant, but rather to show the difference between them and, through the PME-practitioner's mediations, find an accommodation between them (if possible).

The summaries and ideological scenario (Figure 11.7) were presented verbally to the original workshop, but without the presence of the methodology-user. The PME-practitioner's presentation was made to the original workshop instead of the wider set of interviewees because of time constraints (it was impossible to get such a large group together in the time available). The PME-practitioner assumed that the response would be similar because some members of the workshop such as the SG, KMT councillor, media reporter and the senior employee were also interviewees. While I understand that this narrowing of the stakeholder group represents a possible weakness in the evaluation process, in the circumstances it was not possible for wider participation to be achieved. However, the principles of PME were still upheld in that organisational and environmental stakeholders with different views on the candidate methodology and the organisation's situation were still able to participate. These sustained a meaningful and critical evaluation of the methodology.

The methodology-user was given an individual presentation of the summaries and ideology scenario separately from workshop participants.

Ideology scenario in TCC.

The following ideology scenario was created to give both stakeholders and the methodology-user a clear picture of each party's assumptions and concerns. The ideology scenario shows the differences between the three stakeholder categories defined by the PME methodology (the methodology; the methodology-user; and the organisational/environmental stakeholders) regarding the "driving force" of the current and ideal pictures of the organisation and the methodology (in this case TCC and the VSM). A summary of the ideology scenario is provided in Figure 11.7, and an explanation follows.

	TCC's current driving force	TCC's ideal driving force	VSM's driving force
TCC's stakeholders	Safety (Security)	Safety (organisational stakeholders) Flexibility (environmental stakeholders)	Control (Authority)
Methodology-user	Safety, bureaucracy	Perogative	Perogative
The VSM			Viability (Self-control)

Figure 11.7. Summary of TCC's Ideology Scenario

The PME-practitioner explained this to workshop participants and the methodology-user as follows.

- TCC's employees regard "Safety" (organisational stability and job security) as the main motivation for them to stay in TCC, whereas the environmental stakeholders and the methodology-user believe that this "safety" or security prevents TCC from achieving organisational efficiency.
- Environmental stakeholders demand "Flexibility": an improvement of TCC's reaction to environmental requirements (especially quick responses to councillors' and citizens' inquiries and petitions).
- The power-owner (the Speaker) wants the "Perogative" to decide in a unilateral manner on policy, and believes the VSM will deliver this.
- The VSM is also seen by other stakeholder as a mechanism to enhance the power-owner's control ability. They can accept the need for efficiency, and believe the VSM can deliver this, but do not want extended personal control imposed by the Speaker.

The outcomes of the workshop, communicated to the methodology-user, were as follows:

TCC's environmental stakeholders confirmed that they wanted TCC to become a more communicative organisation. They thought that the VSM could be a good mechanism to improve communication, but they felt that their reservations about power abuse were confirmed by the comments made by the methodology-user in the earlier analysis. TCC's employees did not mind if more control systems and restructuring of job design

were brought in, as long as their jobs remained secure. This indicates that the VSM could not be used in the manner the Speaker intended, to create employee flexibility, without passive resistance.

When the methodology-user (the power owner) heard this, he realised the situation was not as he had thought. He had not anticipated such different opinions on his recommendation for changing TCC. The methodology-user admitted that he had not been aware that he was perceived as having a personal intention of imposing stricter control. He agreed that the VSM was not a perfect fit for TCC after all. The stakeholder workshop was then reconvened, and participants were asked if it would be possible to reach an accommodation between the different interests. They then discussed conditions for implementation the VSM that would make it more acceptable. The conditions agreed upon were as follows:

1. TCC's employees should participate fully in the VSM implementation.
2. A monthly intervention schedule and progress report should be provided, and this should be made available to organisational stakeholders.
3. The Speaker needs to change his leadership style.
4. Councillors should not be affected by the intervention.

This list of conditions was then taken back to the methodology-user, who readily agreed to them. However, he re-emphasised that job re-design and resource re-allocation would still be needed if organisational efficiency was to be achieved.

After two rounds of mediation, a new set of driving forces was identified and agreed. The VSM was accepted, but its implementation needed to embrace "job security", "operation efficiency" and "organisational consensus creation". However, this result differs from the VSM's assumptions about organisational design. As I mentioned

earlier, a candidate methodology can be used according to the demands of the local situation rather than its original given purposes (see also Flood and Romm, 1995a), and this was the basis for the recommendations I wrote up for TCC, which are presented below.

11.10. Recommendations for TCC.

PME aims to evaluate whether a candidate methodology is suitable for a target organisation in terms of different stakeholders' assumptions about the methodology and the organisation. In TCC's case, the VSM was recommended as a suitable methodology by the Speaker (the methodology-user) to deal with what he saw as its inefficiency. After exploring the views of stakeholders, and facilitating the basis for mutual agreement on a way forward, the PME-practitioner suggests that a modified VSM intervention could be pursued. However, three particular issues should be borne in mind:

1. TCC's culture is a bureaucratic one that emphasises the importance of organisational design. TCC is also a government organisation which means that there are regulations preventing redesign. However, job-redesign (rather than organisational redesign) can help TCC to achieve viability.
2. From the Speaker's point of view, an organisation should be operated according to certain rules. This is in line with the VSM's principles. In order to pursue organisational goals, some individual freedom might be compromised. This would be acceptable in TCC, as employees do not perceive loss of freedom as abuse unless job security is threatened. Nevertheless, application of the VSM needs to be open and participative to avoid passive resistance by employees.

3. The results of PME indicated that the VSM application should be based on job security for TCC's employees, efficient operation for environmental customers, and effective policy implementation for the Speaker. While the stakeholders in the PME process saw these as reconcilable, not driving forces in different directions, there is still considerable potential for tension between the various stakeholder interests. It will therefore be necessary to build on the agreement achieved through PME ensuring that the continued pursuit of mutual understanding and consensus is built into the VSM intervention. Note that this is practicable because the Speaker feels that his power would not be reduced by accepting the principles of openness and participation, as the VSM provides strong information and communication channels for the power-owner.

Through the evaluation process, the methodology-user has learned about different views of the organisation and the candidate methodology. He is therefore in a good position to take responsibility for ensuring that the candidate methodology is properly implemented. The three issues (above) should be used as guidelines for the methodology-user either to modify the VSM during intervention, or to complement it with other, relevant approaches. The Speaker already has the knowledge of systems methodologies to facilitate this.

11.10.1. The methodology-user.

Through the PME process, the methodology-user has learnt about TCC's ideological situation. He has understood that conflicts on power issues need to be eased as part of intervention. This is not to say that the methodology-user is prepared to give up his own beliefs, but the evaluation has helped him to better understand the political situation. The following recommendations are made to the methodology-user:

1. The Speaker has agreed that stakeholder participation could improve the VSM intervention. Nevertheless, as human beings are sometimes inconsistent and fallible, this commitment needs to be regularly reviewed. The PME-practitioner also suggests that the Speaker should not implement the methodology on his own. Other independent consultant(s) should be recruited to help. This will create some (but realistically not a total) split between the roles of methodology-user and power owner.
2. Re-allocation of resources and job re-design should take account of central government regulations, and should be agreed with employees.
3. Regular review of the intervention should be undertaken, and this should draw upon the views of all the stakeholder groups identified through the PME process.

11.10.2. TCC's stakeholders.

Their involvement in the VSM intervention is essential if all three goals for TCC (job security, efficiency, and implementation of the Speaker's policies) are to be achieved simultaneously.

- **Organisational stakeholders:**

Organisational stakeholders want to keep their job security. However, through the PME process, the employee representatives have come to realise that greater organisational efficiency is needed in order to satisfy other stakeholders' requirements. They have also learnt that a better organisational structure can help them to achieve efficiency without necessarily compromising job security. This start in the process of attitude change must be continued and must be spread amongst all employees. Job redesign is necessary if employees want to improve their image in the eyes of citizens.

When participating in the implementation of the VSM, the organisational stakeholders should cooperate on the following issues:

1. TCC's employees need to change the civil servants' "conservative culture" to a more open one in which they share information with each other. This can be achieved by means of communicative activities, and is in employees' own interests if they do not want solutions to be imposed on them.
2. A clear job description should be written for every individual based on the VSM structure and TCC's aims. The control hierarchy should be changed according to the VSM. TCC's employees need to be guided by each sub-system leader who will be given relative autonomy to deal with their areas of responsibility. Job-redesign will certainly affect employees' working methods, but employees' job security can be assured.

- **Environmental stakeholders:**

The environmental stakeholders are mainly concerned with TCC's efficiency: they want TCC to provide quicker information and better services. However, through the PME process, their representatives have come to realise that TCC is basically different from a business organisation that can command more flexibility to deal with environmental change because, in business, there is a financial "bottom line" which cannot be avoided. Radical organisational restructuring cannot be so quickly achieved in a government organisation.

Nevertheless the VSM, which emphasises the relationship of an organisation with its environment, can no doubt help TCC focus the minds of its employees on the need for efficiency. However, as there is no financial incentive for this, the PME-practitioner

suggests that communication between TCC and other stakeholders is vital. Good communications will result in a social incentive to improve efficiency. TCC could improve its communications with environmental stakeholders in the following ways:

1. Setting up meetings with other government organisations that affect, or are affected by, TCC's activities in order to identify potential areas for improvement on both sides.
2. Since councillors are TCC's main direct customers, they can give advice through casual meetings with the Speaker, the Secretary General and other section leaders. However, such meetings cannot be seen as formal, otherwise TCC would have to follow the official procedure for meetings laid down by the LOLG.
3. TCC could seek the opinions of citizens through public meeting, and quality could be monitored through public opinion polls.

11.10.3. The VSM.

The need to base the organisational restructuring on the principles of job security, efficiency, and effective policy implementation has already been discussed, as has the consequent need to modify the VSM. There are many suggestions for VSM modification in the systems literature (e.g., Flood and Jackson, 1991a; Flood and Romm, 1996a). However, as I have argued, the measures taken should depend on the local situation.

The main idea of the VSM is to design a viable organisation which can deal with both internal and external changes. The VSM pays little attention to how the organisation can create mutual understanding. Although the policy maker (system 5) can gain

information through properly designed communication channels, there is no explicit provision for wide-spread participation in organisational problem identification and decision making.

In TCC's case, it is obvious that various views of the organisation have been surfaced. Stakeholder representatives have expressed their opinions and have gained some understanding from the evaluation process. However, in using the VSM some mechanisms need to be created in order to ensure that stakeholder concerns continue to be addressed. Many systems thinkers (Midgley, 1990, 1997b; Flood and Jackson, 1991a; Flood, 1995a; Flood and Romm, 1995a,b) have realised that a single methodology cannot always deal with multi-faceted organisational complexities. Methodologies should be used in a complementary fashion. The PME-practitioner agrees with Midgley's argument (1997b) that two principles drawn from separate methodologies can be synthesised, and suggests that the methodology-user can apply "participatory" principles in the VSM intervention.

There are many methods which can improve organisational understanding and promote communication amongst individuals. As I have suggested earlier, implementation of the VSM should not be left to the methodology-user himself. A panel, facilitated by an external consultant, could be organised to make the implementation of the VSM relevant to stakeholders. Its aim could be to look at how TCC's performance could be improved and ensure employees' concerns are addressed. This could be a temporary panel that would be disbanded after the intervention. However, the panel should ideally involve TCC's employees from all different levels of the organisation, as well as environmental stakeholders. The jobs for the panel would be to:

1. Schedule meetings to review the implementation of the VSM;
2. Resolve conflicts and difficulties during the implementation;
3. Provide necessary information for the methodology-user and other participants.

Since Taiwan is a conservative community, open discussion is difficult in some organisations, including TCC. The PME-practitioner can only suggest how the VSM could be made more participative. Successful implementation will depend on the power owner and all the other stakeholders' commitment. Nevertheless, the experience of running PME in TCC suggests that it is possible to gain such commitment.

11.12. Conclusion.

The purpose of this case study was to test in practice how PME previews and evaluates (a) candidate methodology(ies). The participative evaluation process embraces the ideological understandings of three different groups: organisational/environmental stakeholders; the methodology-user; and the candidate methodology. Assumptions about both the current and ideal organisational situations are surfaced, and these are then triangulated to enhance mutual understanding. The final phase, recommendation, gives guidelines to the stakeholders on likely consequences of using the candidate methodology.

Finally, it is necessary to gain some reflections on the application of PME. In the next chapter, the workshop members and the methodology-user will be invited and given presentation by me. This gives me an opportunity to see how PME process affect them and what I can learn from this application.

**Chapter Twelve: Reflections Emerging in
the Application of PME**

Chapter Twelve: Reflections Emerging in the Application of PME

12.1. Introduction.

PME aims, as far as possible, to create a comprehensive picture of organisational/environmental ideology(ies), and to improve understanding among the three stakeholder groups (and sub-groups). The organisational/environmental stakeholders and the methodology-user can learn about each other's points of view on the candidate methodology through the evaluation process. In TCC, the PME-practitioner acted as a mediator between two unequal power groups and helped them to create a way forward in guiding and operating the VSM. The process of PME was seen as a successful pre-view of the candidate methodology and that was accepted by TCC. Although the reflections that I describe here are not a formal part of the PME process, they can be seen as offering some vital feedback, as shown below.

During the application of PME in TCC, some difficulties and constraints were revealed. Some are local issues discussed in Chapter 11. In general, this chapter aims to give some reflections on the application of PME from the points of view of participants in the application. This reflection process gives the PME-practitioner an opportunity to see what can be learnt from this practical application. The process of evaluating the application of PME started in this case by giving a presentation of PME recommendations to both the workshop (organisational and environmental stakeholders) and the methodology-user. Following this, some reflections were collected from both parties and the PME-practitioner. Those reflections are primarily concerned with difficulties in the process of PME and how PME might affect those stakeholders' assumptions after PME application.

12.2. Reflections from the Organisational/Environmental Stakeholders and the Methodology-user.

The first activity of reflection was to invite two groups of participants (workshop members and the methodology-user) to a meeting and collect their views about the application of PME. In this case, I gave a presentation in a workshop format instead of with the original interviewees individually, because of time and financial constraints. Since the methodology-user (the Speaker) is the same as the power-owner in this case, I had to give my presentation of PME recommendations to workshop members and the methodology-user separately.

12.2.1. Feedback from TCC's organisational/environmental stakeholders.

In the meeting with workshop members, I firstly gave a verbal presentation. After presenting the recommendations, which were unanimously welcomed, I sought participants' reactions to PME itself. The workshop members were guided to focus on the process and the recommendations of PME. The participants were free to give any views that they had. No pre-designed questions were used. This meeting took three hours to complete.

During the meeting with workshop participants, some issues regarding the PME process were raised by members. These can be summarised as follows:

- The stakeholders felt that they had been respected by the process. They welcomed PME because it gave them opportunities to express their views on the organisational situation and the candidate methodology that they might otherwise not have had. Indeed, the view was expressed that experiencing PME might encourage people who are reluctant to accept an intervention in their organisation to do so after all.

- The culture shock which might occur if the candidate methodology embodied different cultural assumptions to the target organisation could be eased by using PME, since PME can be seen as "buffer" between two or more impacting cultures.
- PME is useful only if the power owner is willing to accept its outcome, which might go against his personal wishes. In the case of TCC, a concern was expressed that the methodology-user might ignore the results of PME, despite recommendations for continued participation. It was noted that, even though PME allows stakeholders to express views in confidence, it is still possible for a consensus to be forced by the power owner if the PME-practitioner is dependent on him or her in any way.
- Another issue was the extent of stakeholder participation. It was noted that some stakeholders participated in PME more fully than others: e.g., the central government official was a key stakeholder, but only participated by post. It appears to be up to the PME-practitioner to ensure meaningful participation.

These comments indicate that PME did what it was designed to do: it gave stakeholders a key and meaningful role in evaluating the candidate methodology. The reservations expressed by stakeholders - that PME would be compromised if the PME-practitioner were not independent, and that stakeholder participation is heavily reliant on the commitment of the PME-practitioner - reflect the importance of respecting the critical systems commitments lying behind PME.

12.2.2. Meeting with the Speaker (Methodology-user).

In the meeting with the Speaker, I asked him, as the methodology-user and the power owner, how the PME results affected his decisions and what impact the application had. In our meeting, the Speaker made the following comments about PME:

- The PME recommendations provided useful guidelines for the methodology-user in terms of modifying the candidate methodology. The PME process also raised his awareness of organisational and environmental stakeholder concerns that he had previously been blind to.
- From the Speaker's point of view, it is worthwhile implementing PME before a real intervention, if only to introduce the methodology to stakeholders, thus facilitating implementation. It could be seen as part of a training course if the candidate methodology was accepted by the organisation.
- The PME process did not require participation by everyone in the organisation, nor did it disrupt the organisation's working schedule.
- PME could give more attention in methodology evaluation to technical feasibility: e.g., financial viability and training needs.

The fact that the methodology-user gained new insights into the organisation, and changed his plans for intervention accordingly, also suggests that PME was able to deliver on one of its key aims: raising ideological awareness, thereby influencing methodology choice. It is also encouraging that PME was not seen as disruptive: major disruption could put people off using it. Finally I should note that the Speaker is right to point out that PME does not evaluate technical feasibility. In the future, it might be possible to add this kind of evaluation into PME, but it could be important not to

create the impression that, because it is technically feasible to implement a methodology, this is a good enough reason to go ahead with an intervention.

12.3. Reflection by the PME-practitioner.

From my point of view, as the PME-practitioner, there were some difficulties and issues that need to be raised.

1. The PME-practitioner should insist on pursuing the principles of PME. PME should be used as a methodology rather than as a set of methods. Although, PME-practitioners are not necessarily knowledgeable about CST, the principles of PME (which are rooted in CST) can be seen as guidance for PME-practitioners to implement the evaluation process.
2. Various techniques and methods are needed for the evaluation of methodology. I have argued that PME is designed as an ideal methodology which needs to be modified according to the local situation. PME is a participative methodology. However, meaningful participation is not always possible; in some societies, the culture (dominant power and knowledge) are not “supposed” to be challenged. Thus, choosing (and adapting) suitable methods in the light of this is necessary for an experienced PME-practitioner.
3. Commitment from stakeholders is important - in particular the power owner or methodology-recommender. Methodology-recommenders, in most cases, have power or knowledge which they utilise in an organisation to choose a methodology.
4. An explanation of terminology and procedures is necessary to introduce PME to non-academic people. In this case, some terminology such as "metaphor" and

"ideology scenario" are not easy for non-academic people to accept. The PME-practitioner has to translate them, but should try not to lose their meaning.

5. Carefully choosing representatives for participation is important. PME aims to involve as many different stakeholders as possible in the evaluation process. However, it is not possible to ask all stakeholders to join this process. Thus, to choose representatives is inevitable. In the choice of stakeholder representatives one needs to take power relations and the local culture into account.

12.4. What can be Learnt from the Application of PME?

From the meetings with stakeholders and the methodology-user, I developed some more general observations about the application of the PME process. There are three main issues that should be addressed:

- Pluralist use of various methodologies: PME employs several methods to assist the methodology-users and organisational/environmental stakeholders to express their assumptions about the candidate methodology. Obviously, it would be difficult to use because of the complexity of stakeholder interactions. PME-practitioners are cautioned against trying to reduce PME to a simple, quick-fix method.
- Awareness of social culture: PME uses many necessary methods to reveal the assumption behind each groups (sub-groups). However, it is necessary to note that those methods might not be appropriate in some circumstances. The PME-practitioner has to modify or choose proper methods. However, such modification or adaptation should be guided using PME's principles.

- **Meaningful participation:** PME argues that professional and powerful knowledge should not dominate the understanding of the methodology. Instead, organisational stakeholders' participation can improve individuals' knowledge. To achieve this, individuals' participative commitment is vital and should ideally be agreed by the participants, including professionals and the powerful. The incentive is that PME gives a clear picture to the powerful, which enables them to better understand the organisational context. Meaningful participation involves inviting various groups of stakeholders, and it is hoped that dialectical dialogue can occur possibly mediated by the PME-practitioner.

12.5. Conclusion.

From the feedback provided by participants in TCC, and from my observations of the application, it appears that PME was able to deliver the main things that it promised: the meaningful involvement of stakeholders; a process for improving mutual understanding; and opportunities for learning about the potential effect of applying the candidate methodology. All the stakeholders seemed to be satisfied with the outcome of PME, which was a decision to use the candidate methodology in a modified form.

Chapter Thirteen: Conclusions

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Chapter Thirteen: Conclusions

13.1. Introduction.

PME argues that there is a need to understand three key sets of ideological assumptions when evaluating a methodology: those embedded in the methodology itself, those belonging to the methodology-user, and those being made by organisational and environmental stakeholders. The way to deal with ideological traps is for participants in methodology evaluation to engage in reflection and critique:

"When someone reflects-in-action, he becomes a researcher in the practice context. He is not dependent on the categories of established theory and technique, but constructs a new theory of the unique case." (Schon, 1983, p.68)

I have used Critical Systems Thinking to inform my understanding of the methodology evaluation process. In Chapter 1, the following aims of the thesis were established:

1. To argue that interpretations of methodologies are ideologically influenced by individuals' beliefs and social circumstances.
2. To provide a new critical process for methodology-users to help them evaluate a given methodology prior to (possible) implementation.
3. To compare and contrast this with TSI(2).
4. To test this process by subjecting a methodology to critical review within the context of a local government organisation in Taiwan.

In this chapter, I will show how these aims have been met.

13.2. Methodologies are Rooted in Ideology.

The first aim was to argue that interpretations of methodologies are ideological in nature. Initially, I suggested that different methodologies are based in different paradigms (Chapter 5). I then argued that paradigmatic frameworks are produced through individual experiences in socio-political situations. Therefore they must be ideological. An exploration of the concept of ideology (Chapter 6) led me to adopt a modification of Mannheim's (1936) understanding that ideology is historically created through relationships between individuals and society. I agreed with Mannheim that ideology is inevitable and ever-present, but unlike him I argued that there is no position of ideological neutrality to escape to. We can be critical of ideological positions, but only from another ideological point of view. Critique *is* important, however, because it allows us to expand our understandings. I therefore proposed that Gregory's (1992) model of ideology-critique should be used as a basis for development a methodology for methodology evaluation.

13.3. PME Enriches Understanding of a Candidate Methodology.

The second aim of this thesis was to provide a new critical process for methodology-users to help them evaluate a given methodology prior to (possible) intervention. I argued in Chapter 7 that methodology evaluation needs to take into account the views of stakeholders who will be directly or indirectly influenced by the application of a candidate methodology(ies). Altogether, PME argues that the ideological assumptions of three groups (and sub-groups) of stakeholders need to be explored: namely, the candidate methodology; the methodology-user; organisational and environmental stakeholders.

PME embraces three phases: surfacing, triangulation and recommendation (Chapter 8). In the surfacing phase, stakeholders explore and express their understandings of the

context of the organisation and the candidate methodology. In the triangulation phase, a dialectical discussion initiated. The recommendation phase then highlights the likely consequences of using the candidate methodology and suggestions are made about ways forward. PME is a potentially continuous process which focuses on the development of local organisational understanding, not generalisable knowledge about methodology.

13.4. PME and TSI(2).

The third aim of the thesis was to compare and contrast PME and TSI(2). In Chapter 9 I argued that TSI(2) can be used to review methodologies; to problem-solve; and to evaluate interventions. In contrast, PME is only for reviewing methodologies. When TSI(2) reviews a methodology, it is for inclusion (or not) in a system of methods. However, PME argues that a data-base like system of methods limits a methodology-user's understanding because it assumes that knowledge about methodology is fixed and generalisable. In contrast, PME argues that contingent knowledge of the candidate methodology and the context of the organisation should be gained through stakeholder participation. Another difference between TSI(2) and PME is their respective attitudes to dealing with coercion. TSI(2) relies on the methodology-user's moral integrity and the Critical Reflection Mode to check whose interests have been served by the intervention. PME creates a participatory, dialectical process, making moral development a collective responsibility. Awareness of the effects of coercion may be raised, but there is no guarantee that the situation will be changed. However, because PME is about evaluating methodologies, not problem-solving with them, dealing with coercion (rather than just highlighting it) should be regarded as a bonus. In practice, PME can either be used independently or within TSI(2)'s Problem Solving Mode (in the choice phase) to assist problem solvers to choose a suitable methodology(ies) according to the local situation.

13.5. The Practical Application of PME.

The fourth aim of the thesis was to test PME by subjecting a methodology to critical review within the context of a local government organisation in Taiwan. The pilot case study in Tainan City Council demonstrated that PME was able to surface ideological assumptions about the methodology and the organisation by means of Ulrich's (1983) boundary questions and a metaphor analysis. In the triangulation phase, a new ideological understanding was generated by means of the PME-practitioner's mediation, allowing a modification of the candidate methodology to be proposed. Through PME analysis, the methodology-user learned more about the situation and the assumptions of various stakeholders. He was pleased to see that PME allowed him to move from his original thinking, which was in the interests of both the organisation and himself. Also, the organisational and environmental stakeholders felt that their views had been taken into account in the decision making. Thus, PME helped to prevent perceived misconduct by the methodology-user, and improved relationships between the methodology-user and organisational/environmental stakeholders, potentially avoiding passive resistance to the forthcoming intervention.

13.6. Future Research Directions.

From the reflection on the application of PME in TCC, there are some issues that may need to be investigated further in the future.

1. Techniques and commitments to enhance individuals' participation and self-reflection.

The need for self-reflection is seen as the main lesson from the critical tradition, as many people feel concerned about a lack of reflectiveness in terms of our discourse, and the interests this serves (Nord and Jermier, 1992). Self-reflection in this thesis is used to reveal the tacit knowledge from stakeholders and in particular professionals

(methodology-users). Those tacit beliefs affect their choice and use of methodologies. However, self-deception might occur, if individuals, in particular professionals, simply commit to a given knowledge-base. Although this thesis applies 'boundary questions' to facilitate the self-reflection process, professionals might use their professional knowledge to hide their tacit knowledge. The PME-practitioner needs to carefully choose and implement appropriate methods to attempt to reveal hidden assumptions and to make these more transparent.

2. Add technical feasibility to PME study.

PME mainly focuses on the different assumptions which underlie the perspectives of the methodology-user, organisational/environmental stakeholders and the candidate methodology. Following Habermas (1972), we can see that a methodology can be evaluated at three levels: technical (organisational structure, goals), practical (organisational culture) and emancipatory (ideology base). It is possible that a methodology could be suitable to deal with organisational process and design; however, at a cultural or ideological level, conflicts could cause the methodology to fail. PME primarily focuses on the cultural and ideological levels of the evaluation of methodology. It might be advisable, if PME could be extended, also to take technical feasibility into account.

3. Apply the three aspects of understanding in organisational problem solving.

This thesis is concerned with the evaluation of methodology through dialectical discussion about a candidate methodology and the context of the organisation by the methodology-user, organisational/environmental stakeholders and the candidate methodology. It is also possible to expand this three-fold concept of evaluation to organisational problem solving. Successful problem solving procedures also need to involve these three factors, since they directly influence intervention. The researched (i.e. the organisation) could be seen as an object waiting to be diagnosed; a

methodology is a means used to look at the organisation's state of "health"; and the methodology-user is seen as playing the doctor's role to some extent in opening up discussion about the organisation. But it would be difficult to solve organisational problems without commitments from the methodology-users and organisational/environmental stakeholders. The three aspects categories encourage the recognition of all relevant stakeholders to achieve possible dialectical discussion in problem solving procedures.

13.7. Final Thoughts.

To conclude this thesis, as Alvesson and Willmott (1992) argue, "critical theory can be seen to explore taken-for-granted assumptions and ideologies that freeze the contemporary social order." (p.12). Indeed, it is usually professionals and experts who set the rules and standards which are deemed suitable for human conduct. Such rational standards and rules are no more than another form of ideology.

"Expert cultures, such as those of management specialisms, are 'socially structured silences' that 'exhaust the space of possible discourse'. CT's role is thus one of encouraging 'noise' to break these silences - to trigger critical comments and inspire dialogue." (Alvesson and Willmott, 1992, p.13)

Expert culture can be challenged and opened up through self-reflection and ideology-critique. It is the aim of PME to create forums for such challenges in the area of management systems practice, thereby allowing stakeholders a greater say in the discourses that affect their lives.

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