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Developing a Systemic Problem Structuring Method for Use in a Problem-Avoiding Culture

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ABSTRACT

This paper presents a Buddhist systems methodology (BSM) designed for use in Taiwanese Buddhist organisations. The authors argue that the BSM has advantages in Taiwanese contexts compared with Western systemic problem structuring methods, which mostly require participants to identify and explore problems or problematic situations. In Taiwanese Buddhist culture, identifying problems is regarded negatively because it could lead to individual blame and threaten organisational harmony. Unlike many Western approaches, the BSM uses Buddhist concepts that are closely associated with the practice of harmonious living. Thus, it reframes systemic problem structuring as the exercise of Buddhist discipline applied to organisational life, which is likely to be viewed as a co-operative and culturally valued endeavour. A BSM intervention is described in which the authors tackled a significant conflict (and issues underlying this) that threatened the future of a large non-governmental Buddhist organisation. An evaluation of the intervention demonstrated significant positive impacts.

Keywords: Boundary Critique, Buddhist Systems Methodology (BSM), Critical Systems Thinking, Methodological Pluralism, Multimethodology, Problem Structuring Methods, Viable System Model (VSM).

1. INTRODUCTION

This paper reports some of the research underpinning our development and application of a Buddhist systems methodology (BSM) for use in Taiwanese Buddhist organisations. Although initially developed in the Taiwanese context, our hope is that its publication in the international literature will spark debate about the similarities and differences between Buddhist and Western systems/OR approaches, with a view to mutual learning across Eastern and Western research communities. While learning across different traditions is not always easy, it is certainly not impossible (Gregory, 1992). Indeed, we believe that this learning could be quite fruitful given that our BSM is already a product of the meeting of Eastern and Western ideas, and was developed in response to the observed failure of an application of a Western systems methodology in Taiwan.

Below, we first of all discuss our motivations for engaging in the development of a BSM. We then outline the methodology itself, including a set of questions (informed by

Buddhist thinking) for systemically exploring problematic (or potentially problematic) situations and guiding action. We end by discussing the first application of the BSM to address a major issue threatening the future of a non-governmental Buddhist organisation in Taiwan. Through an evaluation of this intervention, we demonstrate in both quantitative and qualitative terms that the intervention had a significant impact on the financial sustainability of the organisation as well as the decision making of senior management. Indeed, the BSM was regarded as so successful by the senior management that they officially adopted it as their 'main decision making methodology' and cascaded it down the hierarchy of the organisation.

2. OUR MOTIVATION FOR THIS RESEARCH

In 1996, Chao-Ying Shen undertook a research project with a Taiwanese Buddhist non-profit organisation. The research involved applying soft systems methodology (SSM) (Checkland, 1981; Checkland and Scholes, 1990; Checkland and Poulter, 2006) to see whether it would be useful in a Buddhist organisation, and what could be learned from bringing a systems methodology into this context. Shen's (1996) experience was that the culture of the Buddhist organisation obstructed the surfacing and recognition of issues that might have become foci for the application of SSM. The culture emphasized the idea of belonging to one large 'family' and the importance of respecting roles and norms – especially the organisational hierarchy. Therefore, it was difficult for individuals to mention problems or issues because they feared that they would be seen as challenging the hierarchy, or threatening the coherence of the organisation. In Shen's (1996) view, this was the organisational problem, and it was an obstacle to applying SSM. She also recognised that this was an obstacle to applying systemic problem structuring methods¹ more widely in Buddhist organisations (and possibly other organisations in the East) because these approaches generally require people to discuss issues or problematic

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¹ The term 'problem structuring methods' was first introduced by operational researchers (e.g., Rosenhead, 1989, 2006; Rosenhead and Mingers, 2001, 2004) to describe a class of methodologies and methods that employ models as 'transitional objects' to structure stakeholder engagement (Eden and Sims, 1979; Eden and Ackermann, 2006) and provide a focus for dialogue (Franco, 2006). Usually, the models are qualitative and are constructed collectively in a workshop, but sometimes they are brought in by a facilitator based on previous inputs from participants and are used to orientate engagement. Some PSMs are explicitly *systemic* (Jackson, 2000; Midgley, 2000, 2003). They not only seek to enhance mutual understanding between stakeholders, but they also support participants in undertaking 'bigger picture' analyses, which may cast new light on the issue and potential solutions. Notably, systemic PSMs are used to broaden the perspectives of participants in order to facilitate the emergence of new framings, strategies and actions.

situations.

Another obstacle was that the people in the organisation did not regard SSM as in any way special. They said that Buddhism is already systemic in its orientation, and could not see how SSM could add value. Furthermore, they saw it as a management approach that may be useful in other types of organisation (particularly commercial ones), but they did not think that it would be applicable to a non-profit making religious organisation such as theirs. Thus, SSM was neither special nor useful to their way of thinking.

The way Shen (1996) made progress to overcome these obstacles was to explain SSM in Buddhist terms: i.e., to communicate systems thinking via Buddhist thinking. Thus, she used people's own language to frame the SSM approach, which enabled her to gain their respect and participation. However, she translated SSM into the language of Buddhism in an intuitive manner during the application itself, with only limited opportunity for theoretical and methodological reflection. As a consequence, the idea came to her that if Buddhism and systems thinking could be connected in a more rigorous manner, and a systemic Buddhist methodology developed, then it might be more useful in Buddhist organisations than Western systemic problem structuring methods alone. Indeed, a BSM might even be able to address the issue of the unwillingness to talk about problems by reframing the idea of a 'problem' or an 'issue' using Buddhist concepts. This is the rationale underlying our subsequent research reported in the current paper.

Below, we first of all provide some brief details of Buddhism for those with little familiarity with this philosophical tradition. We then summarise the main conclusions from an initial period of theoretical research into the compatibility of ideas from Buddhism and systems thinking (published in full in Shen and Midgley, 2007a) before detailing the BSM itself. We finish by illustrating the application of the BSM with a case study of its use with a Taiwanese Buddhist non-governmental organisation.

3. BUDDHISM

While systems thinking in the West has roots going back to ancient Greek philosophy (M'Pherson, 1974), it came to be defined as a distinct scientific and management perspective early in the 20th Century (Midgley, 2003), and has informed the practice of OR for several generations. In contrast, Buddhism has developed over a period of 2,500 years. In the Far East, Buddhism is widely respected and continues to play an important role in people's daily lives. The Buddhist view is that man and nature are a unity. Also, spirituality is viewed as an essential aspect of human thought and is not

separated from it as often happens in the West (Koizumi, 1997). This is partly because Buddhists do not believe in a creator/God, so spirituality is 'of this world'.

Buddhism originated in India with Siddhattha Gotama (known as Shakyamuni Buddha) and has spread across much of the Far East. It has also begun to penetrate the West. The precise date of the Buddha's life is not known, but it is thought to be about 480-400BC (Harvey, 1990). Gotama visited many teachers to learn about philosophy and religious practices in a search for the truth of human existence and to find release from the suffering of life (Kalupahana, 1976). He eventually came to offer an explanation of both the universe as a whole and the problem situations we experience within this world. He also realized the limitations of the human senses as sources of knowledge, and offered various methods to prevent and solve problems.

Originally, the Buddha's teachings were passed orally from teacher to disciple. However, changes were introduced through both oral embellishments and interpretations into new languages, so the geographic spread of Buddhism led to different schools with some different emphases in teaching (Bapat, 1956). The adoption of Buddhism was helped when there were parallels with existing beliefs such as Hinduism, Bon, Taoism and Confucianism (Harvey, 1990), and the spread of Buddhism into China and Japan led to eight main Buddhist schools in the Far East (Bapat, 1956). Therefore, Buddhism is not a monolithic religion, but a philosophy that has adapted to different cultures.

In this paper, we take a Humanistic Buddhist perspective, which one of the authors (Chao-Ying Shen) has been schooled in, and which is widely known and respected in Taiwan. Also, we concentrate on those elements of Buddhism that are common to the other traditions too, even if they may (on occasion) be interpreted differently. To widen our focus to the full works of all eight traditions would make our task too complex.

4. AN INITIAL COMPARISON OF BUDDHISM AND SYSTEMS THINKING

To explore whether it is actually feasible, from the point of view of theoretical consistency, to use Buddhism as a vehicle for reframing systems thinking (and hence the use of systemic problem structuring methods), we initially undertook two forms of theoretical exploration: a literature review of previous comparisons of the two traditions and our own comparison. Both are presented in Shen and Midgley (2007a). The arguments are detailed, and the most we can provide here is a summary of our conclusions.

Our literature review revealed only three previous authors undertaking comparative

studies: Macy (1991) compares Buddhism with general system theory; Fenner (1995) focuses on Buddhism and 1st order cybernetics; and Varela et al (2000) look at the similarities between Buddhism and 2nd order cybernetics. An issue with these studies is that they each focus on one particular systems-theoretical perspective, and do not consider either a variety of systems theories or the kinds of systemic problem structuring methods that have been developed and applied by practitioners working across the systems and operational research (OR) communities (for edited volumes containing some of the variety of systems approaches available to the systems/OR practitioner, see Buckley, 1965; Emery, 1969, 1981; Beishon and Peters, 1972; Klir, 1991; and Midgley, 2003). Therefore, in our own comparison (Shen and Midgley, 2007a), we set out to compare a *plurality* of systems ideas with Humanistic Buddhism.

At this point it is important to declare that our purpose was *not* to create a complete synthesis between Buddhism and systems thinking. The differences between them, and also the differences between the various systems approaches, make this a hugely difficult, if not impossible, task. Rather, our more limited objective was to identify *points of connection* that might provide the basis for a new methodology drawing together insights from both traditions.

We took a set of centrally important Buddhist propositions, and for each one we systematically reviewed the systems literature to see if there were parallel notions. For every Buddhist proposition we found that there were indeed very similar systems ideas, albeit using different terms and connecting with different sets of theoretical concepts. Ultimately, we were able to conclude that there is a basis for dialogue and mutual learning between the Buddhist and systems/OR research communities. We also suggested that it would indeed be possible to produce a new Buddhist systems methodology of relevance to organisations in Taiwan, where the open discussion of problems and problematic situations is difficult.

5. METHODOLOGICAL PLURALISM

In developing our BSM, we said that we wanted to preserve the insights that come from a variety of systems theories and systemic problem structuring methods. We therefore needed a *pluralistic* BSM: i.e., one that offers a rationale for drawing on a range of systems theories, methodological ideas and methods according to the purposes being pursued in an intervention.

The systems/OR literature contains extensive discussion of theoretical and methodological pluralism, or 'multimethodology' as it's often called (e.g., Jackson and Keys, 1984; Jackson, 1987a,b, 1990, 1991, 2000, 2003, 2009; Flood, 1989, 1990, 1995a,b; Midgley, 1989, 1992, 2000, 2001, 2011; Flood and Jackson, 1991a,b; Gregory, 1992, 1996; Mingers, 1992; Francescato, 1992; Dutt, 1994; Flood and Romm, 1996a,b; Mingers and Brocklesby, 1996, 1987; Mingers and Gill, 1997; Zhu, 2000, 2011; Gu and Zhu, 2000; Eden et al, 2009; Pollack, 2009; Mingers et al, 2009; Howick and Ackermann, 2011; Franco and Lord, 2011; Georgiou, 2012; Ferriera, 2013). Elsewhere (Midgley and Shen, 2007), we have discussed in some depth how we developed our own multimethodology approach, justifying this against alternatives, and we will not reproduce the argument here. Suffice it to say that we used Midgley's (2000) systemic intervention methodology to structure our overall approach, and then embedded Buddhist concepts and questions within this to derive a new methodology for exploring problematic situations, selecting appropriate methods for intervention and evaluating proposals for organisational change.

5.1 Systemic Intervention

Midgley (2000) proposes that a systemic intervention methodology should encourage change agents (both the practitioner and other participants) to do a minimum of three things:

- (1) Reflect critically upon, and make choices between, boundaries. This is because human beings cannot even be aware of, let alone deal with, full systemic interconnectedness (Churchman, 1970; Ulrich, 1994). Reflection on and discussion of boundary judgements is an activity that helps people to develop greater systemic awareness than taking boundaries for granted, and includes consideration of the ethical consequences of framing problematic situations in particular ways (Ulrich, 1994). Importantly, this is a key means by which the interconnectedness recognized by both Buddhism and systems thinking may be addressed.
- (2) Make choices between theories and methods to guide action. This requires an emphasis on theoretical and methodological pluralism. It is through this pluralism that people using a BSM may draw upon a wide range of theoretical insights and methods from different systems/OR (and other) paradigms, reinterpreting them as necessary to address particular purposes of intervention. This requires an attitude of openness and on-going learning in relation to other paradigms and research/intervention traditions.

(3) Be explicit about taking action for improvement. Improvement needs to be defined locally and temporarily, but in a widely informed manner (without ignoring the dimension of sustainability), because any understanding of it inevitably assumes value and boundary judgements (Churchman, 1970). It is necessary to make understandings of improvement explicit, partly so that people can be accountable for them in discussions with others, and partly because human beings cannot do everything – they need to make choices between the different possible improvements that they can pursue. Only if definitions of improvement are made explicit will people be able to identify when they are pursuing something relatively trivial at the expense of something more important. Shen and Midgley (1997a) argue that the concept of social usefulness is part of Buddhist philosophy, so there is an important connection between Buddhism and systemic intervention here.

It should be clear from the above that the *change agent* (whether defined as a practitioner, a participative group, or in any other way) is pivotal in systemic intervention. It is the agent who undertakes boundary critique, chooses methods and works towards improvement. Self-reflection on the part of the agent, especially in light of power relations and ideologies, is therefore crucial (also see Gregory, 2000).

6. THE BUDDHIST SYSTEMS METHODOLOGY

The BSM that we have developed from a synthesis of Buddhist ideas and systemic intervention methodology can be operationalised in either of two modes: mode 1 is concerned with systemic problem structuring intervention, while mode 2 is about evaluating the conduct and outcomes of a BSM intervention. This is a distinction we have borrowed from Flood (1995a), and it means that the BSM can enable reflection on its own use. However, for the sake of brevity, mode 2 will not be discussed any further in this paper. For full details, including a generic set of evaluation questions, see Shen (2006).

6.1 Overview

The BSM consists of two component structures: the first, detailed in figure 1, is adapted from Midgley's (2000) systemic intervention, and it interactively combines boundary critique, choice between theories and methods (including the mixing of methods), and recommendations for improvement. The emphasis in the BSM is on

recommendations for improvement, rather than *taking action* for improvement, because recommendations are essentially proposals for action that can usefully be subjected to critical analysis using the Buddhist concepts represented in figure 2.

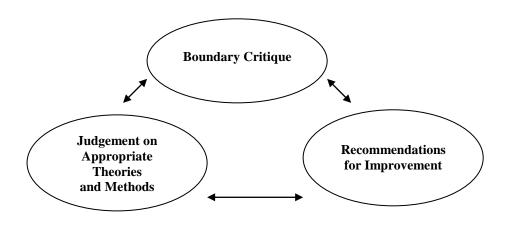


Figure 1: The Essence of Systemic Intervention (adapted from Midgley, 2000: 132).

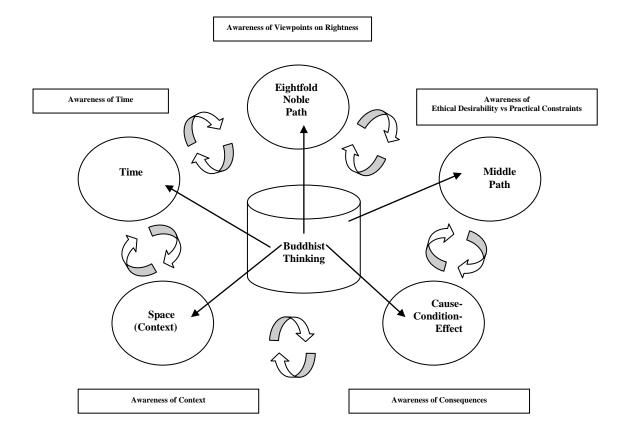


Figure 2: Five Key Buddhist Concepts

The second component structure, represented in figure 2, encapsulates five concepts that are common to all schools of Buddhism, and are a particular focus of Humanistic Buddhism. These concepts are the eightfold noble path; middle path; cause-condition-effect; space (context); and time. They have been discussed in detail by Shen and Midgley (2007a), and summaries will be provided shortly.

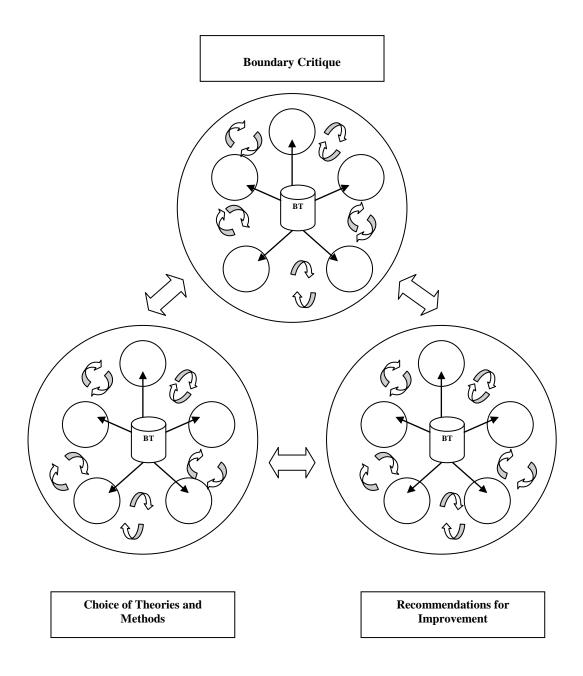


Figure 3: BSM Process of Intervention

Figure 1 therefore represents the three main aspects of a Buddhist systemic intervention (understanding, of course, that we can cycle backwards and forwards between the aspects – they will not necessarily be implemented in a linear sequence). Figure 2 provides the concepts that are to be used *within* all three aspects, making this a thoroughly *Buddhist* systemic problem structuring method. Introducing the five Buddhist concepts into each of the aspects of systemic intervention gives rise to a highly flexible methodology to promote Buddhist reflection, and this is represented in figure 3.

6.2 The Five Major Buddhist Concepts

Summary explanations of the five concepts represented in figure 2, and a discussion of their relevance to the BSM, are provided below.

6.2.1 The Eightfold Noble Path

The eightfold noble path emphasizes awareness of different viewpoints and boundaries. Reflection is encouraged on what might be 'right' for the context in terms of view, thinking, speech, action, living, endeavour, memory and meditation. Exploring the 'right view' involves the critique of purely selfish attitudes, so it can enable greater openness to the viewpoints of others. It can also contribute to conflict resolution and conflict prevention if people are willing to review their own personal interests in the light of other perspectives. The exploration of 'right thinking' encourages avoidance of covetousness, resentment and malice, thereby also helping people build more productive relationships. Reflecting on 'right speech' involves the avoidance of lying, deceitfulness, slander and 'improper' language. So this encourages truthfulness and openness in dialogue, enhancing trust. Thinking about 'right action' encourages the avoidance of killing, stealing and other major misconducts. This helps to build trust and also introduces an action-oriented ethic into the picture. Likewise, exploring 'right living' involves thinking about what it means to work usefully for society, encouraging social and environmental awareness. Reflection on 'right endeavour' encourages the avoidance of idleness and apathy, thereby promoting constructive engagement. Considering 'right memory' encourages the fair representation of self, others and the wider world. It also enhances trust. Thinking about 'right meditation' encourages the practice of Buddhist reflection, which promotes mental discipline in people's lives.

While in Buddhist philosophy the emphasis is on individual reflection on these matters, this is complemented in the BSM by dialogue between stakeholders (see

Franco, 2006, for a wider discussion of dialogue in problem structuring). In our view, dialogue can be useful because in Buddhist organisations people are generally accepting of authority and tend to try to cooperate even when facing serious adversity. However, the shadow side of this is that, in order to preserve organisational harmony, people may try to avoid critique and challenges to established patterns of thinking, even when these are required to deal with the adversity. To counter this tendency, dialogue can be presented as a cooperative activity in which critiques can be *collectively* developed. It introduces the possibility of transcending narrowly defined interests based on restricted individual perspectives (e.g., Buber, 1958; Bohm, 1996; Tannen, 1998; Gergen et al, 2001; Anderson et al, 2004; Franco, 2006; Cronin et al, 2013), which is culturally valued in Taiwanese Buddhist organisations.

6.2.2 The Middle Path

The middle path emphasizes avoidance of extremes, particularly concerning the balance between ethical principles and practical constraints in making decisions. In Buddhist philosophy, extreme views are regarded as emanating from incomplete or distorted knowledge, so a 'middle way' between the extremes (or a path involving a new synergy) is sought. However, the 'middle way' is not a rigid compromise option, but involves assessment in decision making of local influencing factors, which can be surfaced through dialogue. This means that the methodology recognizes that, although some decisions can appear unethical or extreme at first sight, this perception may change following reflection because an understanding may arise that there are worse extremes, or that the supposedly extreme option is necessary for the longer-term good.

6.2.3 Cause-Condition-Effect

The concepts of cause, condition and effect are inseparable in Buddhist thinking. Most readers will be familiar with 'cause' and 'effect', and 'condition' refers to the context that facilitates the cause-effect relationship. The same cause given different conditions may not lead to the same effect. However, what counts as a 'cause', 'condition' or 'effect' depends on local interpretation because complex interrelationships mean that each effect may be a cause of, or a condition for, some other interaction. Inclusion of this concept in the BSM emphasises awareness of the systemic, contextual and interpretive nature of both causality and consequences in the dealings of an organisation. It brings recognition that situations can be complex, and that a sole focus on linear causality may be

inappropriate for finding solutions because deeper understanding about the interaction of cause, condition and effect is often needed to avoid unwanted side-effects of intervention. Therefore the cause-condition-effect idea can promote more careful decision making than thinking in terms of linear cause-effect relationships alone.

6.2.4 Space (Context)

Space is usually viewed in Buddhism in terms of context, not just geographical space. The concept of space emphasizes the need to be aware of local issues in decision-making, especially cultural and ecological factors. Space/context is closely related to 'condition' in cause-condition-effect. The BSM asks people to consider local circumstances in decision making, including the views on these of both the involved and the affected (and surfacing these will usually involve dialogue).

6.2.5 Time

The final concept in figure 2 is time. The BSM encourages the awareness of time issues because Buddhists believe we must think about the past, present and future as if we live in all three simultaneously. Tomorrow's experiences can be created by today's actions, and today's actions are inevitably influenced by the past. By learning from the past, and by considering possible future consequences of our actions today, we can minimize future problems (but not eliminate them altogether because of the limitations of the human ability to grasp complexity). Here, the idea of sustainability becomes important: the potential needs of future generations need to be accounted for today.

6.3 Interactivity

Within each aspect of systemic intervention, the five Buddhist concepts are linked interactively, so thinking moves back and forth from concept to concept until the people involved believe that all of them have been adequately addressed. The sequence in which the concepts are used will depend on the issues that are being explored and the interconnections that are made through reflection and discussion.

7. A QUESTIONING, EXPLORATORY APPROACH

An important aspect of Buddhist thinking is that insight can be achieved through analysis, and the production of knowledge is from both self and other because of their interaction (Fenner, 1995; Shen and Midgley, 2007a). Given this, it makes sense to operationalise the BSM as a series of questions, based on the five Buddhist concepts represented in figure 2. These questions can be addressed in personal reflection, a one-to-one conversation or in a group context. They can be asked about the situation at hand, including ethical concerns being expressed about that situation (boundary critique); the possible consequences of using particular theories and methods; and the possible consequences of recommendations that might arise from using those methods.

The idea for operationalising the BSM using an exploratory, questioning approach came from reading Ulrich (1994). However, his questions are designed primarily for boundary critique. Also, they are based in a Western philosophical tradition, drawing on Kant's (1788) 'categorical imperatives' to inform the formulation of questions. Future research might usefully compare our questions with those developed by Ulrich.

7.1 Boundary Critique Questions

There are 12 questions for boundary critique, many of which have sub-questions within them. 8 of the questions are based on the concerns of the eightfold noble path. Each of the other 4 relate to the middle path, cause-condition-effect, space (context), and time. See figure 4 for details.

7.2 Choice of Theories and Methods

There are also 12 questions about choosing theories and methods. Again, 8 are based on the eightfold noble path and the other 4 relate to the middle path, cause-condition-effect, space (context), and time (see figure 5).

7.3 Recommendations for Improvement

Finally, there are 12 questions for use in reflecting on the possible consequences of recommendations for improvement arising out of the use of the chosen methods (see figure 6). These questions can be used to evaluate recommendations after the latter have been generated. When the practitioner becomes fluent in the use of these questions, he or she should also be able to start using them alongside, or integrated with, the chosen methods to ensure that inappropriate recommendations are not produced in the first place.

Eightfold Noble Path

- 1. What currently motivates you and others to define the issue at hand? What ought to be your/their motivations?
- 2. Is covetousness, resentment or malice influencing you or others in defining the issue? If so, what might the issue look like from yours or other points of view if these were removed?
- 3. Is lying, deceitfulness, slander or any other 'improper' use of language involved in the way this issue is being defined by you or others? If so, what might the issue look like from yours or other points of view if these were removed?
- 4. Is there any major misconduct (killing, stealing, etc.) linked with the issue? If so, should this be included as an integral part of defining the issue?
- 5. Is the issue being defined in a way that privileges your own concerns over wider social concerns? Is there a way to define the issue in a way that includes a wider set of concerns, without making the issue impossible to address?
- 6. Is there idleness, apathy or avoidance of the issue? Who should be engaged with the issue and how?
- 7. Are there any misrepresentations of self, others or the non-human world in the definition of the issue? Have you tested out what you attribute to others by asking them? Should you do so, and if not, why not? If there are misrepresentations, what might the issue look like from yours or other points of view if these were corrected?
- 8. Has the mental discipline of Buddhist thinking been applied sufficiently in defining the issue? If not, can further Buddhist systemic investigation be undertaken?

Middle Path

9. From the various points of view of those involved and (potentially) affected, what are the different possibilities for defining 'middle paths' between their ethical and practical concerns? What risks might be associated with different middle paths, and which one should be chosen?

Cause-Condition-Effect

10. From the various points of view of those involved and (potentially) affected, what cause-condition-effect relationships are important to understanding this issue? What are their potential consequences and the risks of ignoring them? Which should therefore be accounted for, and what conditions make this choice the right one?

Space (Context)

11. From the various points of view of those involved and (potentially) affected, what cultural and ecological contexts are relevant to understanding the issue? What is your view in relation to these other views, and why?

Time

12. From the various points of view of those involved and (potentially) affected, what time scale for dealing with this issue should be adopted, and why? What is your view in relation to these other views?

Figure 4: Twelve Buddhist Questions for Boundary Critique

Eightfold Noble Path

- 1. What method(s) will foster desirable motivations and inhibit undesirable ones (as defined through boundary critique)?
- 2. What method(s) will eliminate or minimize any covetousness, resentment or malice you have identified?
- 3. What method(s) will eliminate or minimize any lying, deceitfulness, slander or any other 'improper' use of language you have identified?
- 4. What method(s) will tackle any major misconduct (killing, stealing, etc.) you have identified?
- 5. What method(s) will help in preventing a narrow set of concerns being privileged over wider social concerns, but without making the issue impossible to address?
- 6. What method(s) will work to counteract any idleness, apathy or avoidance that you have identified?
- 7. What method(s) will help to minimize misrepresentations of self, others or the non-human world?
- 8. What method(s) will help promote the mental discipline of Buddhist thinking, if this is not sufficiently in evidence?

Middle Path

9. What method(s) will support people in developing the middle path between ethical and practical imperatives identified through the boundary critique?

Cause-Condition-Effect

10. What method(s) will help people account for the key cause-conditioneffect relationships identified through the boundary critique?

Space (Context)

11. What method(s) will help people account for the key cultural and ecological contexts identified through the boundary critique, and will they work in those contexts?

Time

12. What method(s) will work in the time scale specified in the boundary critique?

Figure 5: Twelve Buddhist Questions for Reflecting on Choices of Theories and Methods

8. A BSM INTERVENTION

Having outlined our BSM, we now discuss an intervention using it with a Buddhist non-profit membership organisation in Taiwan; actually the same organisation in which Shen (1996) tried to use SSM. Our intervention illustrates how BSM was accepted by stakeholders, in stark contrast to SSM and its language of 'problem situations'. Only a brief exposition is provided here; much more detail can be found in Shen (2006) and Shen and Midgley (2007b).

Eightfold Noble Path

- 1. Are positive motivations embodied in the recommendations? If not, can they be improved?
- 2. Do the recommendations stem from covetousness, resentment or malice? If so, can they be improved upon in this regard?
- 3. Do the recommendations stem from lying, deceitfulness, slander or any other 'improper' use of language? If so, can they be improved upon in this regard?
- 4. Do the recommendations involve any major misconduct (killing, stealing, etc.)? If so, can this be eliminated?
- 5. Do the recommendations reflect wider social concerns either as well as, or instead of, narrower personal concerns? If not, can they be improved upon in this regard?
- 6. Do the recommendations identify the means to tackle idleness, apathy or avoidance (if these are potential problems)? If not, can they be improved upon in this regard?
- 7. Are the recommendations based on any misrepresentations of self, others or the non- human world? If so, can they be improved upon in this regard?
- 8. Do the recommendations reflect the mental discipline of Buddhist thinking? If not, can they be improved upon in this regard?

Middle Path

9. Do the recommendations reflect the middle path between ethical and practical imperatives identified through the boundary critique? If not, should they simply be improved, or is there a need to return to boundary critique to define a new middle path?

Cause-Condition-Effect

10. Do the recommendations account for the key cause-condition-effect relationships identified through the boundary critique? Do they identify ways to change these where possible and desirable?

Space (Context)

11. Will the recommendations work in the cultural and ecological contexts identified through the boundary critique? If not, is there scope for changing these contexts (which could involve making further recommendations), or should the contexts be left as they are and the recommendations changed?

Time

12. What time scale is needed to implement the recommendations, and is this realistic? If not, should the recommendations be amended to fit the time scale, or could they be extended to enable the adoption of a new time scale?

Figure 6: Twelve Buddhist Questions for Reflecting on Recommendations for Improvement

9. THE ORGANISATION

The organisation that was the focus for our intervention was the Buddha's Light International Association (BLIA). The BLIA is a non-governmental, membership organisation that encourages the study of Buddhism; supports cultural, educational and career programs; organises social activities; supports the establishment of Buddhist educational institutions; and disseminates Buddhism internationally. It has a World Headquarters and over one hundred and fifty branch temples worldwide. However, due to historical contingencies, the Taiwanese wing of the organisation is largely independent of its parent body, although it does take policy from, and exchanges information with, the World Headquarters on a voluntary basis.

9.1 Our Initial Approach to the BLIA

Extensive details of our initial approach to the BLIA and the process used to choose an issue for intervention (out of 7 alternatives suggested by a set of monks, nuns and managers whom we interviewed) are provided by Shen (2006). In brief, in terms of making an initial contact with the organisation, one of us (Chao-Ying Shen) was already a member of the BLIA, as was her wider family, so this gave us a point of connection. The intervention was carried out over a 12 month period by Chao-Ying Shen, with Gerald Midgley providing electronic support from the UK.

Our expressed desire to develop a BSM was received enthusiastically by the interviewees (including the Founding Master, who gave personal backing to our project), as they recognised that they needed new management tools. However, the senior managers all expressed scepticism about Western management methodologies: just like before, when Shen (1996) tried to use SSM, they commented that pointing too explicitly at problems can result in blame that disrupts highly valued organisational harmony. Furthermore, several of the people we initially contacted actually remembered Shen's (1996) attempt to use SSM. However, their previous experience did not constitute a barrier to our work: on the contrary, they were glad to see that we wanted to develop a 'more appropriate' methodology.

9.2 The Issue for Intervention

The BLIA in Taiwan has a Youth Division, an organisation for young workers (aged sixteen to thirty five) with sub-chapters located at Buddhist temples throughout the

country. At the time we became involved, the BLIA also had a set of Student Centres, with their own Student Centre Head Office. There were therefore two different organisations in BLIA for young adults (one for students and one for workers), and our initial discussions with selected stakeholders revealed that there was a significant conflict between them. The various dimensions of the conflict only became apparent through our exploratory boundary critique (see later); for now it is sufficient to note that the conflict was perceived as an issue for the whole of the BLIA, not just the youth organisations, because deeper chronic problems were seen as underlying it. In particular, expenditure on youth activities was outstripping income from members. There was also a high dropout rate, with many young people failing to renew their membership of the BLIA. It was recognised that, in the longer term, persistence of this issue would threaten the viability of the whole organisation, given that the Youth Division and the Student Centres were the principle vehicles for recruiting new generations of BLIA members.

9.3 A Reflection

It was a huge surprise for us that our initial set of interviewees were not only willing to raise seven issues that they thought we could help them address, but also that one of these issues (about the youth groups) concerned a significant conflict that was recognised as threatening the viability of the organisation. We had spent a lot of time preparing a contingency plan to be activated in case nobody was willing to identify a focus for our intervention (see Shen, 2006). We were *hopeful* that explicitly adopting a Buddhist methodology would actually allow issues to be surfaced, but we did not take this for granted. Even if we were successful in surfacing issues, we anticipated that, at the very least, it would take several months of careful work with key stakeholders to gain sufficient trust for people to start to be open with us. This assessment was based on Chao-Ying Shen's knowledge of Taiwanese Buddhist culture, gained from nearly thirty years living in that country and participating in Buddhist activities.

Arguably this unexpected openness was due to three factors. First, by gaining the strong support of the Founding Master, we gained the support of the whole hierarchy, given that the Founding Master was highly respected. Second, it was very clear from our discussions with people that their interest in our BSM was genuine: they wanted us to succeed, so were more open initially than Taiwanese Buddhist culture would normally allow. Third, there was a recognised need for an intervention: the issue of the youth groups had both a chronic history and a pressing urgency. The urgency was because the

conflict had come to a head with a management decision taken without consultation (but not yet enacted) to amalgamate the two youth groups. We spoke with the senior nun who had made the decision, and she was not only concerned about whether she had done the right thing, but was also unsure about how to handle the integration (if it were to go ahead) given the conflict and the very different organisational cultures of the Youth Division and the Student Centres.

10.BOUNDARY CRITIQUE

With the agreement of the first set of interviewees mentioned above, the issue for intervention was initially specified as: "should the Youth Division and Student Centres be integrated or separate?" Although the decision to integrate the Youth Division and the Student Centres had already been taken by the senior nun mentioned above, it became clear in our discussions with her that she had not closed her mind to alternative courses of action given her awareness, since making the decision, that it had caused some disquiet in the organisation. Therefore, our judgement was that the question about whether the two youth groups should be integrated or separate was still genuinely open to influence, and the senior nun was willing to state this publicly.

Our twelve boundary critique questions (figure 4) were used to facilitate exploration of the conflict between the youth groups, together with associated concerns. This section presents details of our boundary critique interviews and group work, including more information about the youth issue that emerged through using the twelve boundary critique questions with participants. More space is dedicated to the boundary critique findings than to the design and implementation of subsequent methods, as it will be important for the reader to grasp some of the complexities of the context in order to understand why the intervention progressed the way it did.

10.1 The Participants

When we initially talked with people to decide what issue to focus on, the interviewees suggested that, if we wanted to look at the youth group question, it would be useful to involve seven particular individuals (mostly key decision makers) and some of the affected young people. The seven individuals included people on both sides of the conflict. They all agreed to be interviewed, and we therefore conducted seven individual interviews and one group workshop. The workshop was with Student Centre members drawn from across the country, given that the proposed amalgamation would involve the

absorption of the Student Centres into the Youth Division, with a loss of identity for the former (we asked the Youth Division members if they also wanted a workshop, but they said that they preferred to be represented by their leaders in the individual interviews). We asked the interviewees if they had any more suggestions for other people to interview, including those with different perspectives, but they only identified each other. Midgley and Milne (1995) and Dick (1999) argue that, when this happens, it is reasonable to assume (at least provisionally) that a sufficient set of relevant perspectives have been covered.

10.2 The Interview Process

The interviews took between four and seven hours each, and were spread over several days so that all the BSM questions could be answered without interfering too much with people's daily routines. The students' workshop took a full day (eight hours) to run. The workshop and the interviews were conducted in Mandarin Chinese. We explained the BSM to each person, including why we were developing it, and the function and process of the methodology. We assured people that their contributions would be made anonymous in any published outputs.

Each interviewee was given a typed list of the BSM boundary critique questions. Then we read each question to the interviewee as it became relevant, and let them read the question at the same time. The workshop and the interviews were recorded, transcribed, and translated into English.

Following this set of interviews, we wrote a report to use as material for discussion in a set of meetings to be focused on the choice of methods to address the issue (see later).

10.3 Summary of the Boundary Critique Findings

Below we summarise the answers to the boundary critique questions:

In exploring how people saw each other's motivations, everybody thought others had good intentions, but the consequences of their actions were problematic. The management of both the Youth Division and Student Centres were criticised; several people commented that poor management had led to a decline in membership (particularly large numbers of existing members leaving). The decision to integrate the two groups was commonly perceived to be a result of this management issue, but most participants said that the decision had been rushed, with little consultation, leading to

preventable conflict. Indeed, the students claimed that the closure of their organisation came as a complete surprise to them, and it was acknowledged that the members of the Student Centres had not been involved or consulted at all. The students couldn't begin to fathom why integration was on the agenda, given that the cultures of the Youth Division and Student Centres were very different. A suspicion expressed by a Student Centre manager was that the Youth Division provided a fertile ground for the monastery to recruit monks and nuns, and the hidden agenda was to recruit from the student population too. Others were aware of this view, but said that it was ill informed.

Concerning what the interviewees said their motivations *ought* to be, all of them, whether from the Youth Division or the Student Centres, agreed that the BLIA organisation's future well-being was the single most important consideration. However, some other considerations were also in evidence, such as the needs of young people and the avoidance of waste (e.g., the duplication of effort to support both students and other young people). Overall, the interviewees' agreement over where the ultimate priority lay (plus the open-mindedness previously expressed by the decision taker) encouraged us to believe that a satisfactory accommodation (using a term from Checkland and Scholes, 1990) could eventually be reached through a BSM process.

When it came to discussing covetousness, resentment and malice, a couple of people thought that these were in evidence because the Student Centres had been growing outside the main BLIA hierarchy. The Student Centres had extensive resources that others thought should be shared with the Youth Division. On the other side of this conflict, the students said that the decision not to consult them might be motivated by jealousy of their resources. However, the majority of the interviewees did not perceive any covetousness, resentment or malice, saying that the main issues resulted from misunderstandings and poor communication.

When those who saw the existence of covetousness, resentment and malice were asked what they believed would happen if these were removed, some said that the existing decision making processes in the BLIA would come to an appropriate conclusion, but others said that these decision making processes were inadequate: more and wider consultation on potentially controversial issues would be needed.

Regarding lying, deceitfulness, slander or any other 'improper' use of language, there were different perspectives indicating different boundaries of consideration. A couple of people stated that there had been lying and deceitfulness behind the decision not to consult on the merger decision. However, most of the interviewees did not believe

that this kind of 'bad behaviour' existed. Rather, they thought that the situation was a result of the Buddhist/Chinese culture of only saying 'good words' to people's faces rather than expressing true feelings, to preserve harmony. To us, this point indicates the value, in the Buddhist context, of exploring viewpoints using questions like those we have designed for the BSM, because otherwise we believe that the tendency to only speak 'good words' would have glossed over the problems. It is arguably because we were using Buddhist concepts to inquire into the situation that people felt able to respond more openly than they would normally.

If lying, deceitfulness and slander could have been removed, those interviewees who saw these in existence generally thought that the problem would have been avoided or at least reduced. Everybody wanted better communications. However, different people emphasised different thing in relation to communication. Two interviewees indicated that they viewed this as primarily an issue of organisational structure, because an appropriate solution would have resulted if a communication channel had existed between the top and bottom of BLIA. However, other interviewees indicated that it was the *quality* of the communication that was most important – especially clarity and honesty.

None of the interviewees thought that there were any major misconducts, like killing or stealing, but three people saw waste of resources as a kind of misconduct: "....for example, both groups have different uniforms. Also every time they start a new activity they make new uniforms again". A further interviewee thought that the fault lay in the existence of two separate groups because two groups inevitably mean increased operational costs.

Regarding whether the definition of the issue was privileging people's own narrow concerns over wider organisational or social concerns, the senior managers put forward the view that integration was for the wider benefit of all the BLIA members. Also, the Youth Division members claimed to be seeing the 'bigger' picture as well. From their perspective, the Student Centres had been conducting their activities selfishly and wastefully, and therefore integration would be beneficial: "it may *appear* that the top management of the BLIA has made a decision privileging its side more than another...but actually this could help the BLIA cut costs and reduce disharmony".

However, the student members saw the integration issue differently. Some of them acknowledged that their thinking was focused narrowly on the Student Centres because integration, for them, meant the loss of their organisation. Also, "if these so called 'wider social concerns' are just the expression of Buddhist priests' invisible power, then it is

unfair to say we privilege our own concerns". In addition, a student representative thought that the integration decision was privileging the 'wrong' narrow motive of recruiting young people into the BLIA College: "I focus on young people's needs…but the BLIA Headquarters, even the [named monastery, which needs to remain anonymous], wants young people to enter into the Buddhist College…to become Buddhist monks or nuns".

Regarding a way to define the issue more widely, there were again different opinions. Some people thought that this would be helped by better communication channels and improved organisational structure. Other interviewees emphasised that there was a need to exchange viewpoints between people to create more inter-subjective understanding and ultimately an agreed way forward. However, the student group emphasised that increasing inter-subjective understanding should involve explanation of the reasoning behind the integration decision. Only one interviewee refused to accept the possibility that there could be any way to widen the boundary of consideration: "If people think we as the BLIA Youth Division are only concerned for ourselves, then they are simply wrong. We really don't like those students' attitude". With the one exception above, there seemed to be a willingness to see the issue in terms of wider social concerns and other people's perspectives.

Concerning whether there was idleness, apathy or avoidance, most interviewees thought there was indeed avoidance, but that this was the result of the Chinese and Buddhist culture in the BLIA of not expressing 'true' feelings in order to preserve harmony (rather than being a problem of idleness): "I think avoidance is a normal phenomenon in our organisation". The members of the Student Centres all thought that more open discussions would help here. However, there were also some indications of apathy or unwillingness to take responsibility: e.g., a Student Centres representative said: "Since they have decided on integration...I don't think I need to think hard or work hard now. I can focus on my own life". Even on the Youth Division side it was claimed that, because of the conflict, "the enthusiasm in the BLIA Youth Division for integration has reduced now".

Regarding who should be involved in the issue and why, given the above attitudes, there were some different views. Two interviewees thought that the Youth Division leader alone could plan and execute a successful integration, especially as this person was relatively new to the position and therefore was not implicated in the decision to integrate. One thought that she would be able to handle it as a sole decision maker, while the other

said she would be successful if she built better communications. However, other people thought that the senior managers should discuss the situation with the leader of the Student Centres, and/or hold wider consultations (including with young people), in order to find the best solution. Several people said that our BSM could help in this process.

Concerning misrepresentations of self, others or the non-human world in the definition of the issue, all the interviewees thought that these existed in the BLIA. Most interviewees suggested that misrepresentations were not intentional because they arose from the culture of failing to express 'true' feelings in order to preserve respect, peace and harmony. Nevertheless, the student group members pointed out that even if misrepresentation was happening because of the culture it was not acceptable because it harmed the achievement of mutual understanding, and therefore was the enemy of real harmony. They also said that it was widespread.

We explored whether people had tested out others' attitudes and questioned misrepresentations. Some interviewees indicated that the culture in the BLIA does not encourage questioning because it is generally assumed that decisions just have to be accepted. One interviewee had tried discussing her own ideas with Headquarters but had found this very difficult because they "didn't have time to talk". However, it would be wrong to think that the culture of 'harmony' in the BLIA led to a satisfactory situation because, as a Youth Division representative said: "Many young members have started to leave this organisation...so I asked one of the young members in my branch and he told me it is because they think they don't feel that they can achieve what they want. They are unhappy".

If the misrepresentations could be removed, most interviewees thought that the problems would be reduced because people would know what people really wanted, and why. For other interviewees, however, the removal of misrepresentations would not simply *solve* the problems. Rather it would allow people to better understand the *deeper* problems of the organisation, which could then be tackled. One interviewee claimed that the removal of misrepresentation would actually lead to a *more genuine* happiness and harmony, which is an aim of Buddhism.

Regarding whether the mental discipline of Buddhist thinking had been applied sufficiently, the interviewees expressed different perspectives. Some thought that if Buddhist thinking had been properly applied, the issue would not have arisen in the first place. However, a Student Centre member said that new young recruits initially know very little about Buddhist thinking, so more Buddhist discipline may not help them

immediately. One view was that, although Buddhist thinking had been applied, people had not properly considered the waste of resources. Only two interviewees thought that the sufficiency or otherwise of Buddhist thinking was irrelevant: "I think this is a normal management problem but it just happened to crop up in a Buddhist organisation". Regarding whether and how more Buddhist thinking could be carried out, the majority of interviewees thought that using the BSM could help with this.

Concerning what the different possibilities are for defining 'middle paths' between ethical and practical concerns, the interviewees had some different but interesting ideas. The chosen middle path for some interviewees, particularly those from the Youth Division, was to continue with integration of the two groups but with a better plan that considered benefits for both. However, some other interviewees thought that the middle way should be to appreciate the different needs of the students and the young working members in order to reach a position acceptable and attractive to both sides, which may or may not lead to integration. The middle way for several other interviewees involved organisational re-structuring: they thought that a new structure would be able to preserve the best of the old while allowing new benefits (synergies) to emerge from integration.

The interviewees suggested several different cause-condition-effect relationships that they thought to be important, indicating some very different boundaries of consideration. Some interviewees identified the cause of the integration problem as the top-down decision making system in the BLIA, while others saw this as a condition rather than a cause. Those seeing it as a condition saw the cause as the action of the individual leader who took the integration decision. However, some other interviewees identified the cause as the culture in the BLIA, which they said resulted in poor treatment of young people: "The cause was the way that the BLIA treated Youth Division young people merely as volunteers in Buddhist temples...and the condition was...the BLIA Youth Division's organisational culture". According to one senior manager, the fact that the BLIA Headquarters only allowed a few people to influence the decision maker added to the conditions that enabled autocratic decision making to stimulate conflict, as the decision maker could not get a rounded view of the issues. The recruitment policy of the Buddhist College was also identified as a cause: "BLIA Youth Division members are the source of students for our Colleges"; and "the top management of the BLIA hope they can recruit more young people for the Buddhist College. But...the Student Centres never helped the Buddhist College recruit students. That's why the Buddhist priests and the top management of the BLIA think the Student Centres are not useful and redundant"

(comment from the student group). These quite different views on the relevant causes and conditions indicate the multidimensional nature of the issue, and they no doubt go some way to explaining why the conflict was so persistent.

Different potential consequences and risks associated with ignoring these perceived cause-condition-effect relationships were identified by the interviewees. Some people thought that the main consequence would be that the conflict would simply continue. However, some others emphasised that a loss of members would be the most serious consequence of neglecting the cause-condition-effect relationships. A member of the student group said that "If the purpose of our group is mainly to recruit for the Buddhist Colleges...then we believe that many young people will not be interested in joining".

Regarding the cultural and ecological contexts relevant to understanding the issue, we have already discussed the issue of the Buddhist/Chinese culture that requires people, in the interests of preserving harmony, to remain silent about their thoughts and feelings when they believe others will disagree with them. However, the interviewees also pointed out that the Youth Division was mainly located in North Taiwan, while the Student Centres were principally located in the South, and this gave rise to cultural differences, creating the conditions for communication problems: "Northern Taiwan is more modern and has an international, more cosmopolitan culture", but "The Student Centres' activities are more fun and interesting than the Youth Division's". However, one interviewee pointed out that there was also a further difference: the BLIA decision makers were monks and nuns while the Student Centres leader was a lay person. According to this interviewee, the differences in status (the norm being for lay people to defer to priests) added an extra layer of complexity to the cultural communication issues.

When discussing the issue of North versus South Taiwan, some people made what are, in our view, quite sweeping generalizations: e.g., "People in Northern and Middle Taiwan particularly like cultural and educational activities, but people in the South are more unsophisticated". Nevertheless, reflecting on the geographical divide made others consider the potential implications for any restructuring activities: "We must keep a balance between Northern and Southern Taiwan, perhaps by setting up sub-HQs in different areas".

Regarding the time scale for dealing with the issue, most interviewees said things like, "I hope this problem can be sorted out as soon as possible, maybe within two months, because if it continues it will affect the future development of the BLIA Youth Division" (senior manager). However, other interviewees pointed out that restructuring

was needed, so it could take up to six months. A couple of people expressed words of caution, such as "I don't want to rush and set a time limit". Importantly, that comment came from the most senior participant being interviewed, suggesting that she was willing to seek a genuine solution rather than a quick fix.

In general, however, people were more optimistic than cautious, with several saying that they were hopeful because of our BSM intervention.

11. REFLECTIONS ON METHODS

Next we look at how methods for intervention were chosen. We started by taking the boundary critique outputs and identified the main foci of people's concerns raised by the BSM questions. Then (via e-mail, given that we were based in different countries) the two authors of this paper selected some systemic problem structuring methods that seemed to be reasonable candidates to inform the intervention. We did the initial selection of methods ourselves using the BSM 'choice of theories and methods' questions (figure 5), as discussions with the participants revealed that they did not initially have enough knowledge of systemic problem structuring to make an informed choice themselves. Nevertheless, after carrying out our analysis, we took the outputs and talked them through with all the participants involved in the boundary critique.

It is important to note that, at this juncture, the approaches we presented were not an integrated set. We simply set out a list of ideas that we thought might work in terms of the different BSM questions, realizing that this exercise would generate more options than could actually be implemented. At this stage we included approaches, such as SSM, that we were pretty sure (given Shen's, 1996, previous problematic intervention) would not be looked on favourably, but we didn't want to foreclose any reasonable options without further discussion with the participants. Our idea was to propose a final set of methods once we had a better picture of how the various options might be received.

For the sake of brevity, we will not present our reflections on systemic problem structuring methods using the BSM questions (these are set out in detail in Shen, 2006). Nor will we discuss the feedback we received from participants, other than to mention that there was continued resistance to all Western dialogue-orientated approaches. Suffice it to say that we went through several iterations of proposals before securing mutual agreement on a way forward for our intervention.

It is also important for us to say at this point that, during these discussions, the Student Centres' members started to rethink their initial resistance to an organisational merger. One possible interpretation of this is that the principal decision maker had already made her own preferences apparent, and so some people followed this lead (as was their usual practice). Also, the Student Centres leader had by this time been given a new role, moving her out of the student organisation, so the decision may have seemed irreversible. According to this interpretation, the shift in attitudes resulted solely from power relations. However, there is also another possible interpretation. It was apparent to us that people were more confident now that they would be able to work constructively with others with whom they had previously disagreed, so the prospects of integration didn't seem so bad.

It is arguably the case that both interpretations have some validity, but our own view (though we cannot provide cast iron evidence to support it) is that improvements in constructive engagement were a more significant factor than power relations. We say this because several people, when discussing methods with us, attributed the emergence of a more conciliatory attitude to use of the BSM. They said that answering the BSM questions had prompted them to self-reflect, enabling them to see the situation more clearly, and the BSM intervention had allowed viewpoints to be aired which would otherwise not have received a hearing. In relation to this, it was arguably significant that the decision maker had allowed a process of inquiry (the BSM) that did not pre-judge the necessity of integration, despite having expressed her preference for the latter. In our view, the result of this openness was a greater willingness to listen to and accept her views.

Ultimately, we agreed to a two-pronged intervention: (i) use of the viable system model (VSM) (e.g., Beer, 1981, 1985) to support a restructuring of the BLIA Youth Division (incorporating the Student Centres), focusing also on the communication pathways needed for viability; and (ii) further implementation of the BSM, training senior managers in its use so they could cascade it down the organisation. We viewed these two aspects of the intervention as complementary, in the sense that the VSM would support the establishment of key communication pathways while the BSM would enable people to use these more effectively than previous pathways.

The VSM was first proposed by Beer (1979, 1981, 1984, 1985). It is a systemic design for organisational viability using cybernetic principles – essentially an ideal model of an organisation that real organisations can be assessed against. Viability is defined as

the ability to respond effectively to environmental changes, even when unpredicted. The VSM can be used diagnostically to identify current organisational problems, or proactively to support the redesign of new structures and communications. We used it primarily for the latter. Details of the VSM itself will not be provided in this paper, as it has been described extensively elsewhere (refer to the references to Beer above and, for more recent writings, see Espinosa, 2008; Hoverstadt, 2009; Espinosa and Walker, 2011, 2013; Brocklesby, 2012; Preece et al, 2013).

12. RECOMMENDATIONS FOR IMPROVEMENT AND THEIR IMPLEMENTATION

Only a brief overview of our use of the VSM and our further dissemination of the BSM to generate recommendations for improvement is presented here. A fuller narrative, plus several qualitative VSM models, can be found in Shen (2006).

12.1 Application of the VSM

Prior to attempting a VSM redesign of the BLIA Youth Division, we again consulted with all the interviewees to identify the particular structural and communications issues that they thought existed in the BLIA. This additional round of consultations was to check whether the situation had changed since the boundary critique and selection of methods, and to see if any new aspects were mentioned once the issue of restructuring was discussed without direct reference to the conflict described above. The issues (focusing primarily on those not covered earlier) can be summarized as follows:

The BLIA Headquarters had a number of sections directly reporting to it. The Adult Division (for members over thirty five) was just one of many, and the Youth Division (for adult members under thirty five) was accountable to this. Usually there were only one or two Buddhist priests and a few part-time volunteers in the Youth Division part of Headquarters to help it deal with all matters and conduct activities for all the branches throughout Taiwan. People said that this was clearly insufficient.

The BLIA Headquarters was providing hands-on leadership to all the local branches in Taiwan, resulting in a lot of direct contacts which caused a heavy workload. This meant that the people working in the Headquarters saw themselves as chronically short staffed with no obvious way to handle all the necessary tasks.

Because of the staff shortage at Headquarters, Buddhist priests were appointed as supervisors in local branch temples, but this created another problem because they did not know the mission of the BLIA Youth Division, and each supervisor guided young members in their own way and established their own local power base.

In the BLIA there was a staff rotation rule, which led to uncertainty, loss of 'organisational memory' and inefficiency. Every three years or less, the Buddhist priests were transferred to other posts. The interviewees claimed that each time this happened it took a new person coming in a long time to get to know all the branches. Also the people in the branches changed periodically, so maintaining contacts and information flows was difficult.

As reported earlier, working young members (in the Youth Division) and students (in the Student Centres) had been in two separate groups for several years, which increased problems of communication between them and allowed inefficiencies to develop. However, as revealed during our BSM intervention, the top-down decision to merge the Youth Division and Student Centres had brought the unhappiness and conflict between the two sections to a head. Although there was now some acceptance of the integration decision, they were unsure how to manage their combined organisation so as to put the conflict behind them.

The BSM boundary critique had revealed that those associated with the Youth Division and the Student Centres had different aspirations and perspectives; there were poor information flows; problems arose from the geographical spread and cultural differences between branches; people felt that the organisational structure was inadequate; and there was a lack of appropriate activities being organised in the Youth Division, particularly for students.

We offered to carry out a draft redesign for the BLIA ourselves, consulting with other stakeholders along the way. The alternative would have been a fully participative process, but five factors led us to believe that an 'expert led' (but still consultative) approach would work best. First, Chao-Ying Shen was the only person with knowledge of the VSM working on the ground in the BLIA, and she did not have time to train others given the relatively short timescale for change specified in the boundary critique. Discussions with the stakeholders revealed that they were unwilling to compromise on the timescale for fear of losing momentum. Second, we were concerned about using a participative or strongly dialogical process (other than the BSM) given people's attitudes to Shen's (1996) previous use of SSM. Third, we had clearly gained the confidence of all the stakeholders (from the senior managers of the BLIA through to the students), so we thought (given that we were proposing to maintain communications with others

throughout production of the organisational redesign) an 'expert-led' approach would not be resisted. Fourth, the Youth Division leader specifically asked us to play this role in the organisational redesign, confirming that we had the confidence of the senior management. Fifth, several stakeholders said to Chao-Ying Shen that she was the only person who could truly see the 'bigger picture' of all the problems that the different interviewees had raised. Even though information from the boundary critique had been shared, we were obviously perceived as being sufficiently independent to maintain a 'helicopter view'. This 'expert-led' but consultative approach is in line with other applications of the VSM in the literature (e.g., Espejo and Harnden, 1989).

Since there was only limited time available to produce our VSM analysis, we kept the recommendations reasonably general, allowing the stakeholders to take ownership of the details of implementation. The BSM includes a set of questions for reflecting on the adequacy of recommendations (figure 6), and these were used by Chao-Ying Shen in the process of developing the VSM organisational redesign. The new design (Shen, 2006) was accepted and implemented by the stakeholders, with only minor adjustments.

12.2 Wider Use of the BSM in Decision Making

During the 'choice of methods' phase of the intervention, two senior managers in the Youth Division asked Chao-Ying Shen to teach them how to use the BSM. These two people then independently taught several other people, both in temples and in the Adult Division (where one of the senior managers held an important position). Thus, people began spontaneously passing on their knowledge. Indeed, we received a number of e-mails and telephone calls from people in the BLIA who had not been involved in our intervention asking questions about the BSM.

In the following two sub-sections, we present some feedback we received about the wider use of the BSM for both individual and organisational purposes.

12.2.1 Individual BSM Usage

The BSM was used for personal decision making by several key individuals in the BLIA. Two examples provided during our post-intervention evaluation are given below.

A senior manager in the Youth Division informed us that she had to quickly organise a very important activity: the first Youth Division members' party following the integration of the Youth Division and the Student Centres. She was still concerned about the conflict. She used the BSM boundary critique questions to identify and then call a meeting with as

many relevant stakeholders as possible. She said that the BSM significantly enhanced communication and cooperation in the group discussion, and people jointly decided on a way to make this party succeed. The final result was that the party was held in a big Buddhist temple, and nearly 50% of BLIA Youth Division branch members joined in, including many previous Student Centre members. It was very successful. The informant told us that, following this experience, she now uses the BSM whenever there is a major decision to be taken.

Similarly, another senior manager in a significant leadership position explained that she usually kept the BSM questions in mind and considered them when she made decisions. She used the BSM boundary critique questions to locate which people she needed to put within her decision boundary. She then discussed the decision with relevant stakeholders. She set aside her right to autocratic decision making, and also used the BSM to discuss the correct methods to employ before making decisions. She told us that she had come to experience decision making quite differently, and also her thinking was quite different too.

The second respondent (above) claimed that no 'ordinary' management method could move Buddhists in Taiwan away from their autocratic decision-making culture, and neither would any 'ordinary' method be accepted by Buddhist priests. She said that only the BSM, with its synergy of Buddhist thinking and systemic problem structuring, offers an acceptable (she called it "ideal") method to change the Buddhist culture around power relations without making Buddhist priests feel antagonistic. She also said that, after she had used the BSM, she finally found out that other people usually have good opinions; she made decisions more successfully; and earned more support from colleagues than before. Now she uses the questions from the BSM when she conducts every breakfast meeting. She has also used the BSM process and questions when she has made decisions in partnership with the top management of the BLIA, beyond the Youth Division.

12.2.2 Organisational BSM Usage

Following its dissemination, the BSM was officially adopted as 'the main decision-making system' within the Youth Division Headquarters, the Youth Division Area Offices (which were set up following our VSM redesign), and the local branches. Furthermore, many young members of the Youth Division adopted the BSM process to organise their own activities.

The BSM also came to be used by some people at the top of the organisation. Nobody was able to give us a precise number, and discovering this had to be put beyond the scope of the research, but we were informed by a senior manager that the influence was significant. For some others, we understand that top-down authority is still preferred, and this is especially so for many of the older Buddhist priests. However, most of the younger priests are happy to use the BSM when they have meetings and make organisational decisions. For example, the BSM is used in the BLIA Headquarters monthly meeting. Also, people generally seem willing to be participants when others apply the BSM.

The BSM is also now used by some Buddhist branch temple priests, because since it has been adopted as the main decision-making system of the Youth Division, they need to learn to use it in order to adequately supervise young members. Initially, they reported that the BSM is good for supporting them in making decisions, so now some priests want to adopt it as the official management approach for the Buddhist temples too.

13. EVALUATION

We undertook an evaluation of the BSM six months after our intervention was complete. We used the BSM questions to inform our evaluation (thinking about the boundaries of the evaluation, the appropriate methods to use, and the possible consequences of any conclusions to be drawn). For details of the BSM evaluation process, see Shen (2006).

We determined that our evaluation should look at two things:

- (1) Whether or not the BSM had helped deal with problematic issues in the BLIA, and therefore whether it might be worth trying in other Buddhist organisations. This relates to the *effectiveness* of the BSM.
- (2) Whether or not the BSM was easily understood and adopted within the BLIA, and whether or not the chosen methods (the VSM and further use of the BSM) were satisfactory from the perspectives of participants. This relates to the *acceptability* of the BSM and the methods chosen through it.

Fifteen partly semi-structured and partly structured interviews were undertaken for the evaluation: thirteen with previous participants in our intervention and two with people who had been exposed to the BSM after it, but had not actually used it themselves. Mostly it was the information from the thirteen participants that was useful for the evaluation, although the answers from the other two were revealing in terms of judging the wider impact of the BSM on the organisation. An effort was made in the interviews to get people to compare their experience of the BSM with their previous decision making experiences, whether using formal methods or not. The interview schedule was partly based on the BSM questions but also contained other questions designed to stimulate reflections on our methodology and its application (see Shen, 2006, for details). In addition to the interviews, we asked participants to provide quantitative information collected by the organisation to support some of their claims. A summary of the interview data and the quantitative information is presented below.

13.1 Effectiveness of the BSM

The participants all believed that the BSM had helped foster desirable motivations; had supported them in considering other people's motivations (compared with the approach they might have taken without the BSM); and said that it led to a better understanding of desirable motivations than existed previously.

Most of the participants thought that the BSM had eliminated some covetousness, resentment or malice. Four people commented that this was achieved because using the BSM had widened their appreciation of others' concerns, which reduced the influence of 'negative' emotions.

Over half the respondents thought that the BSM had been successful in eliminating or reducing deceitfulness and 'improper' use of language. Likewise, over half indicated that the BSM aided people in communicating their 'true' thinking, and so helped to minimise misrepresentation.

Most thought that the BSM produced no change in regard to tackling major misconducts, as they did not believe these existed in the first place. However, two respondents thought that the BSM had actually helped here. These were the two who thought that wasting resources constituted a major misconduct.

All the respondents who had participated in our intervention thought that the BSM had helped in preventing the privileging of narrow concerns over wider concerns. Six respondents commented that previously decisions were made only by those at the pinnacle of the hierarchy, and these people did not consult others. However, now that the BSM had been adopted as the official decision making approach, a wider range of people's views were regularly sought before decisions were taken.

All the respondents claimed that the BSM had helped to counteract idleness, apathy or avoidance. Most indicated that using the BSM's step-by-step questions *requires* people to participate and is therefore effective in this regard. One person thought that there had been a major change with respect to avoidance of issues, and another commented that young members were now much more willing to contribute than previously.

Almost all the respondents thought that the BSM minimised misrepresentations. Nearly half spontaneously commented that it achieved this by widening the set of people involved in the decision making process, and the specific questions also helped by highlighting many factors to consider.

All the respondents claimed that the BSM helped promote Buddhist thinking. Almost half commented that we had given them a management tool which includes important Buddhist principles, so they can practise Buddhism as they manage. This was important to them because, in their view, most management methods have little or no relationship with Buddhist thinking and are therefore frowned upon in the organisation and are unlikely to be used.

All the respondents thought that the BSM supported them in expressing a better middle path between ethical and practical imperatives. Four respondents indicated that, in their view, the BSM allows more choices to be considered than is usually the case, which results in a more practical course of action at the end of the day that is less likely to result in conflict than pursuit of a single option without the evaluation of alternatives.

All the respondents answered that the BSM had helped them account for key cause-condition-effect relationships. Three commented that the BSM process increases awareness of consequences, which improves decision making. One respondent pointed out that making better decisions avoids the creation of new problems.

All the respondents thought that the BSM had helped them account for key cultural and ecological contexts, although one respondent thought that this was no different for her personally than she would have expected had the methodology not been used (perhaps because she had already been very aware of the impacts of Chinese Buddhist culture prior to our intervention). Comments from almost half the respondents indicated that the BSM had helped them widen consideration from a previous focus on the interviewee's own concerns, particularly when these related to a geographical region, and encouraged people to consider others' concerns in different areas.

All the respondents also thought that the BSM had worked better in the specified time scale than their previous procedures. Almost half commented that using the BSM questions had increased the efficiency of their decision making. One respondent said that the BSM reduces 'nonsense' conversation, and that people can now make a better decision in two meetings than they could previously in four or five less well-structured meetings.

All but one of the interviewees who had been involved in our intervention indicated that the BSM had provided a useful process to consider the issue of whether or not the two youth groups should be amalgamated. One person commented that the BSM offered a clear logic for analysis; two respondents noted that the BSM had helped them learn about others' views; and six people commented that the BSM had broadened their understanding of the issue, helping them to think through the benefits and disadvantages of different courses of action.

All fifteen respondents were able to identify positive impacts in the BLIA during the six months since the BSM intervention. Most pointed out that the conflict in the Youth Division had either ended or had been significantly reduced. They all said that there had been a successful integration into one group. Several people remarked on the wider contribution of viewpoints to decision making with not only 'top-down' but also 'bottom-up' communications and two-way listening. One respondent also noted the creation of four new area offices and websites to aid communication (recommended in our VSM analysis); the voluntary reduction of the senior management power base; the fact that the new Youth Division had been moved out of the Adult Division (another VSM recommendation); and use of the BSM as the official Youth Division decision making system. She said that all of these changes could be traced directly back to the BSM intervention.

Almost everybody said that the most important impact was the ending of the conflict, followed by the improved communication channels creating better inter-personal and inter-group understanding, especially encouraging bottom-up information flow. The new independent structure of the Youth Division and a reduction in the rate at which members were being lost (meaning that membership gains were now significantly outpacing losses, which was not the case previously) were also mentioned.

All the respondents were able to point out consequences of the changes in organisational structure brought about by the VSM redesign; in particular the fact that the BLIA Youth Division now had a new structure independent of the Adult Division with its

own Headquarters, four area offices situated throughout the country, and better communications. Several people noted that members were more enthusiastic now that they were allowed to plan their own activities, and they appeared keener to stay in the BLIA. All the respondents claimed that the structural changes were positive.

All the respondents indicated that there had been changes in communications in the BLIA since our intervention. They noted that using the BSM as the main decision making system in the Youth Division had 'pushed' people to express their views and listen to others' perspectives, which increased mutual understanding. Furthermore, the branches and their individual members could communicate and receive information more quickly and more accurately, particularly using websites and emails.

Most of the respondents thought that, since the structural changes, the number of contacts (meetings, e-communications and information exchanges) in the BLIA had increased (only one person said that they had fewer contacts with others). Also, most thought that the quality of the contacts had improved, but three claimed that they were worse. All but one of the respondents thought that contacting other people was easier. Just over half thought that there was more 'top-down' communication; one person thought that there had been no change; and the rest reported less. However, all fifteen respondents noted more 'bottom-up' communication. While there was clearly still dissatisfaction in some circles around contacts and communications, the situation appeared to have improved for the majority of the respondents.

All but one of the respondents said that they knew of no other methods which could have produced equal or better results in the BLIA than the BSM. Three people suggested improvements: two thought fewer questions would have been better, while one thought the BSM could be improved by including more Buddhist concepts. The step-by-step process was reported to be useful and helped to speed up decision making by those who had used it.

13.1.1 Quantitative Information

Five interviewees supplied us with quantitative information from their records to support their claims that the BSM intervention had made a difference. Graphs are presented in Shen (2006).

The records indicate that the number of meetings or other activities per annum held by young people in the seven years prior to our intervention had ranged from zero (in the year 2000, when a major earthquake had happened) to twelve. However, in the six months following the intervention there had already been thirteen meetings and other activities. Other records revealed that, in the previous four years, spending had exceeded income. However, with the integration of the two youth organisations, spending in the first six months of the new financial year was only about one-third of income, indicating a huge change in the organisational finances. A number of respondents were particularly pleased that renewals and recruitments of new members had increased significantly since the intervention: five times as many members had joined or renewed in the six months since the intervention than in the whole of the preceding year, and one person noted (anecdotally) that there had been a two- or three-fold increase in the number of members attending each activity.

It appears that the new structure, informed by the VSM, had allowed people to define roles and responsibilities more clearly, and the use of the BSM in decision making had increased involvement and participation and led to more popular activities in the new Youth Division. This had reduced the rate of members leaving and increased the recruitment of new members, which meant enhanced membership income. Also, the fact that attendance at each activity had increased had meant that the income from the activities had been more than sufficient to make them self-financing. Previously, the activities had been regarded as a costly liability.

13.2 Acceptability of the BSM and the Methods Chosen Through It

Of the fifteen respondents, eleven said that they had used, or tried to use, the BSM since our intervention: four of these people had led the use of it themselves, and the rest had participated in BSM discussions. Of the four interviewees who had not used the BSM at all in the past six months, two were students (and arguably they were therefore not in a position to use it for decision making). Seven of the eleven users said that they found the BSM easy to use, although most of these claimed that it had been difficult to understand when they first came into contact with it. This suggests that more thought needs to go into how it is explained to people coming to it for the first time. Encouragingly, however, thirteen of the fifteen respondents either said that they wanted to continue to use the BSM or start doing so.

Regarding the acceptability or not of the chosen methods for use in the BLIA (and the other possible systems approaches we discussed in the 'choice of theories and methods' phase of our intervention), the evaluation results indicated almost total agreement by the respondents on what was acceptable. All the interviewees indicated

the acceptability of the BSM and VSM. However, there continued to be mistrust of all the Western dialogical approaches (see Shen, 2006, for details). This is probably because of the prevailing Buddhist and Chinese cultures, which stress respect for authority and the unacceptability of challenging it. However, it was encouraging that the BSM, which itself provides a dialogical and systemic problem structuring approach, was acceptable to all respondents. In our view, this serves to confirm the validity of our starting proposition: that it is both possible and useful to reframe the insights of Western systems thinking with a culturally relevant methodology such as the BSM.

14. CONCLUSIONS

The Buddhist culture in Taiwan encourages a deep respect for age and authority. Consequently, it is very difficult for people in Taiwanese organisations, especially Buddhist ones, to challenge prevailing authority structures, even when they believe that serious mistakes are being made. While surreptitious sabotage is possible (Ho, 1997), the open voicing of disagreement is usually viewed as threatening organisational harmony, which (according to the norms of Buddhist culture) should be avoided. Even the open recognition of problems is generally avoided for fear that pointing to a problem could be construed as blaming someone. It was Chao-Ying Shen's concern about the unwillingness of Taiwanese Buddhists to acknowledge the existence of even quite significant organisational problems, and the seeming inability of Western systemic problem structuring methods to address this issue (Shen, 1996, 2006; Shen and Midgley, 2007a), which was the launch-pad for our own research program to develop a Buddhist systems methodology that might have more success in this regard.

We believe we have demonstrated that the principal strength of the BSM is that it introduces a route for people in Taiwanese Buddhist organisations to identify issues, critique the status quo, and consider how things ought to be done *using familiar Buddhist concepts that are closely associated with the practice of harmonious living*. Because the questions will be culturally familiar to Taiwanese Buddhist participants, we believe that their use (either with a researcher acting as a go-between, or in open debate when sufficient trust has been established) is more likely to be viewed as a co-operative and therefore culturally valued endeavour, compared with using less familiar Western systems concepts that can be interpreted as threatening organisational harmony. In our view, even questioning whether there is serious misconduct (e.g., killing or stealing) can

be reframed in a positive light if it is seen as the exercise of Buddhist discipline applied to organisational life.

REFERENCES

- Anderson R, Baxter L A, & Cissna K N (Eds.) (2004). *Dialogue: Theorizing Difference in Communication Studies*. Sage: Thousand Oaks, CA.
- Bapat P V (1956). 2500 Years of Buddhism. Publications Division: Government of India.
- Beer S (1979). The Heart of Enterprise. Wiley: Chichester.
- Beer S (1981). Brain of the Firm. 2nd ed. Wiley: Chichester.
- Beer S (1984). The Viable system model: Its provenance, development, methodology and pathology. *Journal of the Operational Research Society* **35**: 7-25.
- Beer S (1985). Diagnosing the System for Organisations. Wiley: Chichester.
- Beishon J and Peters G (1972). Systems Behaviour. Harper and Row: London.
- Bohm D (1996). On Dialogue. Routledge: London.
- Brocklesby J (2012). Using the viable systems model to examine multi-agency arrangements for combatting transnational organised crime. *Journal of the Operational Research Society* **63**: 418-430.
- Buber M (1958). I and Thou. Scribner: New York.
- Buckley W (1965). *Modern Systems Research for the Behavioral Scientist.* Aldine: Chicago.
- Checkland P (1981). Systems Thinking, Systems Practice. Wiley: Chichester.
- Checkland P and Scholes J (1990). Soft Systems Methodology in Action. Wiley: Chichester.
- Checkland P and Poulter J (2006). Learning for Action: A Short Definitive Account of Soft Systems Methodology and its Use for Practitioners, Teachers and Students. Wiley: Chichester.
- Churchman C W (1970). Operations research as a profession. *Management Science* **17**: B37-53.
- Cronin K, Jackson L and Midgley G (2013). Issues mapping: A problem structuring method for addressing science and technology conflicts. *European Journal of Operational Research*, in press.
- Dick B (1999). Rigour without Numbers: The Potential of Dialectical Processes as Qualitative Research Tools. 3rd ed. Interchange: Chapel Hill.

- Dutt P K (1994). Problem contexts—A consultant's perspective. *Systems Practice* **7**: 539-550.
- Eden C and Ackermann F (2006). Where next for problem structuring methods. *Journal of the Operational Research Society* **57**: 766-768.
- Eden C, Ackermann F, Bryson J M, Richardson G P, Andersen G F and Finn C B (2009). Integrating modes of policy analysis and strategic management practice: Requisite elements and dilemmas. *Journal of the Operational Research Society* **60**: 2-13.
- Eden C and Sims D (1979). On the nature of problems in consulting practice. *Omega* **7**: 119-127.
- Emery F E (1969). Systems Thinking, Volume One. Penguin: Harmondsworth.
- Emery F E (1981). Systems Thinking, Volume Two. Penguin: Harmondsworth.
- Espejo R and Harnden R (eds.) (1989). The Viable System Model: Interpretations and applications of Stafford Beer's VSM. Wiley: Chichester.
- Espinosa A, Harnden R and Walker J (2008). A complexity approach to sustainability: Stafford Beer revisited. *European Journal of Operational Research* **187**: 636-651.
- Espinosa A and Walker J (2011). *A Complexity Approach to Sustainability: Theory and Application*. Imperial College Press: London.
- Espinosa A and Walker J (2013). Complexity management in practice: A viable system model intervention in an Irish eco-community. *European Journal of Operational Research* **225**: 118-129.
- Fenner P (1995). Reasoning into Reality: A System-Cybernetics Model and Therapeutic Interpretation of Buddhist Middle Path Analysis. Wisdom Publications: Boston, MA.
- Ferriera J S (2013). Multimethodology in Metaheuristics. *Journal of the Operational Research Society* **64**: 873-883.
- Flood R L (1989). Six scenarios for the future of systems 'problem solving', part 1. Systems Practice 2: 75-99.
- Flood R L (1990). Liberating Systems Theory. Plenum Press: New York.
- Flood R L (1995a). Solving Problem Solving. Wiley: Chichester.
- Flood R L (1995b). Total systems intervention (TSI): A reconstitution. *Journal of the Operational Research Society* **46**: 174-191.
- Flood R L and Jackson M C (eds.) (1991a). *Critical Systems Thinking: Directed Readings*. Wiley: Chichester.
- Flood R L and Jackson M C (1991b). *Creative Problem Solving: Total Systems Intervention*. Wiley: Chichester.

- Flood R L and Romm N R A (1996a). *Diversity Management: Triple Loop Learning*. Wiley: Chichester.
- Flood R L and Romm N R A (eds.) (1996b). *Critical Systems Thinking: Current Research and Practice*. Plenum: New York.
- Francescato D (1992). A multi-dimensional perspective of organizational change. Systems Practice 5: 129-146.
- Franco L A (2006). Forms of conversation and problem structuring methods: A conceptual development. *Journal of the Operational Research Society* **57**: 813-821.
- Franco LA and Lord E (2011). Understanding multi-methodology: Evaluating the perceived impact of mixing methods for group budgetary decisions. *Omega: The International Journal of Management Science* **39**: 362-372.
- Georgiou I (2012). Messing about in transformations: Structured systemic planning for systemic solutions to systemic problems. *European Journal of Operational Research* **223**: 392-406.
- Gergen K J, McNamee S and Barrett F J (2001). Toward transformative dialogue. International Journal of Public Administration 24: 679-707.
- Gregory W J (1992). *Critical Systems Thinking and Pluralism: A New Constellation*. PhD Thesis, City University, London.
- Gregory W J (1996). Discordant pluralism: A new strategy for critical systems thinking? *Systems Practice* **9**: 605-625.
- Gregory W J (2000). Transforming self and society: A critical appreciation model. Systemic Practice and Action Research 13: 475-501.
- Gu J and Zhu Z (2000). Knowing *wuli*, sensing *shili*, caring for *renli*: Methodology of the WSR approach. *Systemic Practice and Action Research* **13**: 11-20.
- Harvey P (1990). An Introduction to Buddhism. Cambridge University Press: Cambridge.
- Ho C H (1997). A Critical Process for the Evaluation of Methodology Ph.D. Thesis, University of Hull.
- Hoverstadt P (2009). *The Fractal Organization: Creating Sustainable Organizations with the Viable System Model.* Wiley: Chichester.
- Howick S and Ackermann F (2011). Mixing OR methods in practice: Past, present and future directions. *European Journal of Operational Research* **215**: 503-511.
- Jackson M C (1987a). Present positions and future prospects in management science.

 Omega: The International Journal of Management Science 15: 455-466.

- Jackson M C (1987b). New directions in management science, In: Jackson M C and Keys P (eds). *New Directions in Management Science*. Gower: Aldershot.
- Jackson M C (1990). Beyond a system of systems methodologies. *Journal of the Operational Research Society* **41**: 657-668.
- Jackson M C (1991). Systems Methodology for the Management Sciences. Plenum: New York.
- Jackson M C (2000). Systems Approaches to Management. Kluwer/Plenum: New York.
- Jackson M C (2003). Systems Thinking: Creative Holism for Managers. Wiley: Chichester.
- Jackson M C (2009). Fifty years of systems thinking for management. *Journal of the Operational Research Society* **60**: S24-S32.
- Jackson M C and Keys P (1984). Towards a system of systems methodologies. *Journal of the Operational Research Society* **35**: 473-486.
- Kalupahana D J (1976). *Buddhist Philosophy: A Historical Analysis*. University Press of Hawaii: Honolulu.
- Kant I (1788). Critique of Practical Reason and Other Writings in Moral Philosophy. Beck,L. (trans. and ed.). 1949 ed. University of Chicago Press: Chicago.
- Klir G (1991). Facets of Systems Science. Plenum: New York.
- Koizumi T (1997). Nature, spirituality, and environmental ethics: East meets West. *Cybernetics and Human Knowing* **4**: 5-24.
- Macy J (1991). *Mutual causality in Buddhism and General Systems Theory*. State University of New York Press: Albany.
- Midgley G (1989). Critical systems and the problem of pluralism. *Cybernetics and Systems* **20**: 119-131.
- Midgley G (1992). Pluralism and the legitimation of systems science. *Systems Practice* **5**: 147-172.
- Midgley G (2000). Systemic Intervention: Philosophy, Methodology, and Practice. Kluwer/Plenum: New York.
- Midgley G (2001). Rethinking the unity of science. *International Journal of General Systems* **30**: 379-409.
- Midgley G (ed.) (2003). Systems Thinking. Sage: London.
- Midgley G (2011). Theoretical pluralism in systemic action research. *Systemic Practice* and Action Research **24**: 1-15.
- Midgley G and Milne A (1995). Creating employment opportunities for people with mental

- health problems: A feasibility study for new initiatives. *Journal of the Operational Research Society* **46**: 35-42.
- Midgley G and Shen C Y (2007). Toward a Buddhist systems methodology 2: An exploratory, questioning approach. *Systemic Practice and Action Research* **20**: 195-210.
- Mingers J C (1992). Recent developments in critical management science. *Journal of the Operational Research Society* **43**: 1-10.
- Mingers J and Brocklesby J (1996). Multimethodology: Towards a framework for critical pluralism. *Systemist* **18**: 101-131.
- Mingers J and Brocklesby J (1997). Multimethodology: Towards a framework for mixing methodologies. *Omega: The International Journal of Management Science* **25**: 489-509.
- Mingers J and Gill A (eds.) (1997). *Multimethodology: The Theory and Practice of Combining Management Science Methodologies*. Wiley: Chichester.
- Mingers J, Liu W and Meng W (2009). Using SSM to structure the identification of inputs and outputs in DEA. *Journal of the Operational Research Society* **60**: 168-179.
- M'Pherson P K (1974). A perspective on systems science and systems philosophy. *Futures* **6**: 219-239.
- Pollack J (2009). Multimethodology in series and parallel: Strategic planning using hard and soft OR. *Journal of the Operational Research Society* **60**: 156-167.
- Preece G, Shaw D and Hayashi H (2013). Using the viable system model (vsm) to structure information processing complexity in disaster response. *European Journal of Operational Research* **224**: 209-218.
- Rosenhead J (1989). Rational Analysis for a Problematic World. Wiley: Chichester.
- Rosenhead J (2006). Past, present and future of problem structuring methods. *Journal of the Operational Research Society* **57**: 759-765.
- Rosenhead J and Mingers J (2001). *Rational Analysis for a Problematic World Revisited*. Wiley: Chichester.
- Rosenhead J and Mingers J (2004). Problem structuring methods in action. *European Journal of Operational Research* **152**: 530-554.
- Shen C Y (1996). Combining Buddhist Thinking and Soft Systems Thinking to Explore and Learn from a Buddhist Organization. MA Dissertation, University of Hull.

- Shen C Y (2006). Towards a Buddhist Systems Methodology (BSM): Developing the Theory of the BSM and Testing it in a Taiwanese Buddhist Organization. Ph.D. Thesis, University of Hull.
- Shen C Y and Midgley G (2007a). Toward a Buddhist systems methodology 1: Comparisons between Buddhism and systems theory. Systemic Practice and Action Research 20: 167-194.
- Shen C Y and Midgley G (2007b). Toward a Buddhist systems methodology 3: An application in a Taiwanese Buddhist organization. *Systemic Practice and Action Research* **20**: 211-244.
- Tannen D (1998). The Argument Culture: Stopping America's War of Words. Balentine: New York.
- Ulrich W (1994). *Critical Heuristics of Social Planning: A New Approach to Practical Philosophy*. Wiley: Chichester.
- Varela F J, Thompson E and Rosch E (2000). *The Embodied Mind: Cognitive Science and Human Experience*. MIT Press: Cambridge MA.
- Zhu Z (2000). Dealing with a differentiated whole: The philosophy of the WSR approach. Systemic Practice and Action Research 13: 21-57.
- Zhu Z (2011). After paradigm: Why mixing-methodology theorising fails and how to make it work again. *Journal of the Operational Research Society*: **62**: 784-798.