

## **Behavioural considerations in Group Support**

**Colin Eden**

**Abstract:** This chapter highlights a series of inter-related issues that significantly affect the success and failure of group support for decision and negotiation. The issues are derived from the Group Decision and Negotiation (GDN) experience of the author, accumulated over forty years and hundreds GDN interventions. While they refer to some of the well-established literature on the topic, they are not based on formal empirical analysis. The items in the lists all raise issues that involve behavioural considerations. In particular it will be suggested that, notwithstanding a recent focus on micro-analysis in GDN, these topics are still worthy of greater research and debate within the GDN research community.

**Keywords:** group facilitation, group behaviour, group support systems

### **Introduction**

This chapter identifies issues in facilitating group decision support as a result of the author reflecting on many years of GDN facilitation experiences. These issues are not identified through a designed research programme but rather collect together the theoretical and practical issues that the author addresses as GDN workshops are designed and fulfilled. The literature used is inevitably largely focused on the published views of the author as they developed over 40 years of research and practice. The issues addressed are inter-related and these are noted as the chapter unfolds.

As the sections within the chapter develop the implications for the design of GDN support tools, and in addition indicate chapters in this handbook that discuss topics that relate to the section in this chapter.

### **Group Decision Support as *Facilitating Negotiation* using Analytical Support**

Because there are multiple perspectives on problem situations (at least if there is an effective team) then any agreed actions are the result of negotiation – indeed the essence of both Operational Research (Eden 1989; Rouwette 2003) and *Group Decision and Negotiation* is that of supporting and managing a negotiation. The extent to which facilitation explicitly attends to the need for the group to enact the agreed decisions will depend on maintaining the social working of the group in relation to other issues they need to work on with one another. In the provision of effective group support this means the facilitator must pay attention to both balancing socially negotiated order (negotiated relationships) with negotiated social order (a negotiated solution) (Day and Day 1977; Strauss and Schatzman 1963; Strauss 1978; Eden and Ackermann 1998).

Alongside this consideration sits another requirement to enable the group to appreciate that *process* followed ‘makes sense’: evidence of procedural rationality (Simon 1976). For group decision and negotiation this means that the steps taken by the group are obviously sensible if the group is to arrive at a decision; it also means an avoidance of ‘black box’ analysis where the group sees the work of a model as opaque.

Implication: Exploit the benefits of a team. Attend to the design of process as well as working towards an outcome.

Related chapters: In many chapters authors discuss the development of the team - Kaur and Carreras; Ackermann and Eden; Franco; Andersen and Richardson; Adam-Ledunois and Damart.

### *Balancing Managing Process with Managing Content*

There are two extremes to facilitation style: that of the Organization Development (OD) consultant who wishes to attend to the behaviour of the group as a group and so help the group operate more successfully; and that of the decision science consultant who is committed to supporting the group with rational analysis such as that provided by traditional Operational Research (OR) modelling (Eden 1978). These extremes of process management [P] compared to content management [C] are in practice blurred.

The significance of the PxC conceptualisation (Eden 1990) captures the essence of the tension between pure OD focus and pure content focus. The equation symbolises that process with no content focus (OD) achieves little, and content with no attention to process (often referred to as 'hard-OR') also achieves little. It is still too often the case that excellent analysis does not get implemented because the *process* of model building pays no attention to the client's view of his/her situation. Huxham and Cropper 1994 further developed the conceptualisation to encompass the role of 'substantive' knowledge of the facilitator (PxCxS).

The focus of the facilitator along these dimensions, and the way in which the facilitator expects one to inform the other, is important in managing a facilitation episode. Effective

group decision and negotiation is significantly aided by employing the multiplier effect between the skills of process management and the skills of content management (Eden 1987), where the multiplier comes from treating the two skills as intimately and continuously informing each other.

Similarly, the particular decision modelling, or problem structuring and analysis, focus of the facilitator is likely to influence significantly the nature of process support to a group. For example, many facilitators are oriented to decision analysis and others are oriented to simulation modelling as the appropriate decision support procedure.

Implication: GSS tools need to provide support for the facilitator as well as the group given the excessive demands of managing both content and process (Ackermann and Eden 1999).

Related chapters: **Ackermann and Eden** use software that provides the facilitator with information about the behaviour of participants – the rate of contribution, the extent of developing consensus, the specific nature of contributions, etc.

### *Political feasibility*

Organisational politics is the essence of organisational life (Jones and Lakin 1978 provide a fascinating account of the range of politics of organisational life). “Organisations must be seen as tools... organisations are tools for shaping the world as one wishes it be shaped” (Perrow 1986: 14). Politics exists because of people wanting to make personal gain and enjoy an enhanced career. But what matters for good decision-making is that politics also arise from managers fighting for what they genuinely believe is best for the organisation. In any effective team there should be different perspectives on a decision situation (see the next

section on cognitive change). When there are multiple perspectives the fight for the 'right' perspectives generates politics, where coalitions are formed 'issue selling' and 'claims on the future' take place (Dutton et al. 1983; Dutton et al. 2001; Nutt 1984; Nutt 2002). When there is no politics around decision making then there is a great danger of narrow-mindedness and 'group-think'.

It does not matter how analytically rational a decision is, if a decision cannot influence the future in the way it was intended, then it cannot be regarded as an effective decision. The decision must be politically feasible for the designed organisational change to follow.

Importantly, in problem definition managers do not save considerations of implementation to a separate stage in the process of problem-solving. The term implementation tends to connote its consideration as being separate from the other processes of problem-solving such as problem construction, problem defining, evaluating alternatives, and so on. Managers consider the practicality of possible solutions at the same time as problems are formulated (Eden 1987). As Chester Barnard 1938 (1938) stated: "the decision as to whether an order has authority or not lies with the persons to whom it is addressed... there is no principle of executive conduct better established than that orders will not be issued that cannot or will not be obeyed" (p163-167).

The role of equivocality in managing content may be significant in facilitating a shift in perspective for participants in such a way that they have not won or lost, with concomitant consequences for future working. The precision of analysis has to be balanced with fuzziness and a recognition of uncertainty in the results of analysis. Clearly articulated approaches to group negotiation must be used by the facilitator. And yet, the effectiveness of facilitation can be founded on devising some sort of dialectic (Eden 1992) which can act as the energy to aid

creativity and negotiation within the group, but finding the right time to shift from equivocality to precision as a dialectical force is not easy. The politics of problem solving in teams can be viewed as the "management of meaning" (Pettigrew 1977).

Implication: GDN practice must combine the dispassionate and 'objective' activities of science *combined* with aspects of the behavioural sciences which can encompass the passion of 'issue selling'. Encourage, acknowledge, and manage multiple perspectives.

Related chapters: Szapiro presents the role of intuition and tacit knowledge.

*Attending to past and future of group – participants are not free agents*

The history of the group and organization and the *emergent* properties of the group and organisation influences the politically feasibility of agreements.

What sort, if any, of "organizational memory" is used to enable respect for the future? The notion of "organizational memory" involves not just a record of the meeting in the form of 'minutes' but rather something that captures the essence of the meeting and so signifies an emotional connection with the GDN workshop.

Developing some initial "shared meaning" (a complex notion which is discussed extensively by Scheper 1991 and Scheper and Faber 1994), a cathartic experience, and some personal problem solving prior to meeting the group can be an important preface to a group workshop.

Political feasibility (Eden 1992) is influenced by the need for a group decision to account for the impact the decision will have on the future working relationships of

the group members, as well as attending to organisational politics. As Geoffrey Vickers 1965 (1965) argued “the goals we seek are changes in our relations or in our opportunity for relating; but the bulk of our activity consists in ‘relating’ itself... the most important aspect of activities, the ongoing maintenance of our on-going activities and their ongoing satisfactions” (p33).

Implication: Facilitate changes in relationships as well as the ‘physics’ of a situation.

Emotion is important to gaining commitment.

Related chapters: **Martinovski** discusses the significance of emotion in GDN.

### *The Principles of ‘Getting to Yes’*

Fisher and Ury 1982 published an important text on the principles of negotiation (see also Fisher and Brown 1988; Fisher and Shapiro 2007; Fisher, Ury, and Patton 2011). For group decision and negotiation key principles are:

- “face-saving reflects the persons need to reconcile the stand he takes in a negotiation or an agreement with his principles and with his past words and deeds” p29

Any group decision support process or tool must recognise the significance of a provision for face-saving.

- “means structuring of the negotiating game in ways that separate the substantive problem from the relationship and protect people’s egos from getting involved in substantive discussions” p38

Many group support systems (GSS) are designed to use anonymity at some stage during the process – typically during the problem structuring phase.

- “if the first impediment to creative thinking is premature criticism, the second is premature closure. By looking from the outset for the single best answer, you are likely to short-circuit a wiser decision making process in which you select from a large number of possible answers” p61

Nutt (2001) reinforces the importance of developing a large set of possible options.

Option surfacing must be seen as a key part of the group decision and negotiation process.

- “rather than ask about their positions he asks about their interests: not how big a window the wife wants, but why she wants it” p119

Understanding goals (and ‘negative goals’ – Eden and Ackermann 2013) and the relationship between options and goals (the causal links) enables the group to understand the means-ends relationships associated with agreements.

These principles are each fundamental to group decision and negotiation.

Implication: Use multiple perspectives to drive creativity through the synergistic combination of many options. Ensure that agreement is not only focused on actions but also on the reasons for them.

Related chapters: **Wagner and Drucker** present aspects of more formal negotiation situations; **Szapiro** considers how to utilise tacit knowledge; **Ackermann and Eden**, and **Kaur and Carreras** consider the process of sharing knowledge.

### **Cognitive change**

During group decision and negotiation a person thinks, reconstrues, and socially interacts and so changes their mind. It is a gradual and subtle process within which GDN models play a



more significant part when they can be a processual "toy" (Eden 1993) that can be played with in an engaging manner. Cognition is in transition as negotiation unfolds. Without cognitive change negotiation cannot proceed.

The key to understanding how cognition can change is an acceptance that problems are socially constructed (Berger and Luckmann 1966) and that the act of construal of situations is as important as the act of perception. The act of construal is filtering in not filtering out. (Berger 1974). Meaning is given to perceived events and that meaning varies from one person to another as they each try to make sense and give meaning to the event. Meanings are derived from the cognitive context of perception (Berger 1974). Differences in construal explains why different people see different things in what is 'objectively' the same situation. Negotiation depends, then, upon negotiating meanings – managing meaning (Pettigrew 1977).

Because meaning is personal then it is always the case that there will be multiple perspectives on any situation – both from the point of view of GDN then these need to be recognised and exploited. Recognising and working with multiple perspectives reduces the likelihood of the danger of 'group-think' (Janis 1972; Janis 1989) and the group 'going to Abilene' – a place nobody wanted to go to (Harvey 1988)

Implication: Organisational change comes from managing meanings – focus on the tool allowing for meanings to be in transition.

Related chapters: **Geiger** considers the role of communication media; Ackermann and Eden use theory from cognitive psychology; **Kibris** presents negotiation as a cooperative game;

Kaur and Carreras use cognitive mapping; Almeida, Morais, Costa and Roselli explore the neuroscience to GDN.

### *Boundary Objects and Transitional Objects*

Boundary objects (Black and Andersen 2012; Carlile 2002; Franco 2013; Quick and Feldman 2014) of some sort are fundamental to negotiation and cognitive change – they are at the boundary of all the different perspectives and belong to no one person but are expected to belong to the group.

However, for a boundary object to be effective the object (decision model, in my case a causal map) needs to be in continual transition to reflect the changing thinking of the group. Simple boundary objects such as a flip chart sheet, perhaps with a rich picture, can help – but only as long as they are in transition – become transitional objects (Eden and Ackermann 2018; Ackermann and Eden 2010; Ackermann and Eden 2011; Ackermann et al. 2016; de Geus 1988; Eden 1994; Eden and Ackermann 2004; Winnicott 1953). Most simple boundary objects are too difficult to keep in transition; the continually developing rich picture sometimes need to change in a fundamental way, post-it/hexagon/oval maps so not get changed often enough because it is too tedious, and the time taken can lose the group. Boundary objects play a significant role in developing emotional commitment as well as cognitive commitment (Eden and Ackermann 1998).

Boundary objects and transitional objects play an important role in the “the creation of legitimacy for certain ideas, values, and demands-not just action performed as a result of previously acquired legitimacy” – in the management of meaning.

Implication: Tools must reflect multiple perspectives and so act as a boundary between different perspectives, and yet also be in continual change.

Related chapters: **Andersen and Richardson** introduce group modelling procedures that seek to ensure the construction of an appropriate boundary object – a simulation model;

**Ackermann and Eden; Kaur and Carreras** illustrate the use of causal mapping as a boundary object; and **Ackermann and Eden** emphasise the significance of a causal map as a transitional object.

## **Building and Monitoring Emotional Commitment**

### *Procedural rationality and procedural justice*

The interest and commitment of group members can be significantly influenced by two aspects of process. If the procedural follows what participants regard as a sense step by step process where each step appears a sensible follow on from the previous step then the process is likely to be regarded as rational. Similarly when participants are convinced that they have been listened to then they are more likely to commit to an alternative view even if different from their own (Thibaut and Walker 1975; Tyler and Blader 2000; Kim and Mauborgne 1998). The two aspects are related and whilst appearing to be arguing for increased democracy in groups and organisations, they can be a key to manipulating and managing commitment.

Related chapters: **Kaur and Carreras** tell a real story of the impact of procedural justices.

### *Problem 'finishing'*

In organisational setting a problem is mostly finished (with) rather than solved. Problem finishing is a common phenomenon explained by many psychological and social psychological reasons, other than a solution having been attained.

In early papers I have depicted the social business of working on problems may be seen as a *cycle* of "presenting a portfolio of solution/options", "problem construction", pondering upon and "making sense of the situation" and "defining the situation" (Eden and Sims 1982, Eden 1987). Negotiation is most likely to take place at the problem construction stage. This means that the group decision and negotiation process is aimed at 'solution' falling out from the "making sense" and "definition" that follows "construction". Thus, implementation is not a stage in a process of working on a problem, but rather is embedded in the negotiation about the nature of the problem. People do not construe problems without also considering how to get things done.

Ackoff and Emery 1972 usefully distinguish dissolving from resolving from problem finishing.

*Dissolving problems:* a change in an individual's intentions, change in the relationship between a person's value system and their belief system, change in the salience of particular values for construing the situation, downward change in expectations.

*Resolving problems:* arbitrary choice: "the dice man".

*"Solving"/Finishing/Alleviation:* replace dissatisfaction with satisfaction, "satisficing", individual 'feels that it is obvious what must be done' – the action is felt to be robust,

by doing it few options for future action are closed off, unknown worry/anxiety disappears even if course of action not defined, a complex 'mess' is organized into a system of interacting tractable problems, "I don't know what I will do, but I know I will be able to decide when I need to".

A group of individuals will become 'finished' with a problem at different times. The forming and reforming of coalitions means that each person's expectations of what is possible/practical will be continually changing and so involves seeing negotiation as a psychological as well as social process. There are dangers of 'socially negotiated order' being crowded out by 'negotiated social order' (Harvey 1988).

Implication: In group decision and negotiation attention must be paid to the early part of group work where the 'problem' is constructed and defined. For the facilitator there is a need to monitor the attitude of the group to stages of agreement, so that the commitment of the group to agreements is not lost through the facilitator/analyst encouraging the group to refine their 'solutions' by too much 'rational analysis' that does not recognize earlier emotional commitment.

Chapters: **Shakun and Martinovski** explore getting at the problem; **Franco** uses micro analysis to understand the group process 'as it happens'.

### **Political feasibility and the Consultant-Client Relationship**

Building trust with the client and the group can significantly affect the success of a GDN workshop. The starting point for an involvement with a client and a group typically

recognises some degree of trust in the alleged competence of the facilitator. However, many client groups have poor experiences of facilitated workshops, where the group has been the recipient of a design that has not understood either the nature of the situation facing the group, or the contextual nature of the organisations within which the group members reside.

The facilitator uses a standard workshop script often based on no substantive discussion with the client or any attempt to ‘read up’ on the context, and so build trust before a GDN intervention (see Eden and Ackermann 2004; Tully et al. 2018). Clearly an external facilitator cannot, and should not, pretend to understand fully the situation – indeed often it is the ‘naïve’ questions asked by a facilitator that can sometimes help a group. But, having some understanding of the ‘pain’ felt by the group is crucial. Without understanding the pain and working to resolve it (or ‘finish’ with it (Eden 1987)) the workshop deals with the problem as defined by the facilitator rather than that faced by the group.

The gradual process of building trust, through effectively addressing the pain – as defined by the client group – leads to the facilitator being treated as someone whose views about the substance of the problem are sought: PxC expertise leads to PxCxS contributions. Flexibility of script (Ackermann et al. 2011). The facilitator has to ‘earn the right’ to be respected rather than relying on trust in their appointment to the task.

Implication: Build mutual trust between consultant and the client group.

Chapters: **Kaur and Carreras** discuss the care and methods they took in developing and understanding the client group prior to a GDN workshop. **Franco** presents, through micro-analysis of group behaviour, some of the significant episodes in the GDN process.

### *Developing the Consultant-Client Relationship*

Facilitators may, or may not, specifically address the nature of the relationship between consultant/facilitator and a client who is not "the organization" but rather a particular individual. Thus the facilitation may be expected to meet a number of objectives, including "invisible objectives" (Friend and Hickling 1987: 103) such as the resolution of interpersonal disputes and the management of political agendas. Rarely is the facilitation episode a "quick in and out" manner but rather the project engages with the client through a developing relationship between consultant, method, and client. Negotiating and establishing clear expectations may be taken to be crucial to the success of the facilitation (Ackermann 1996; Eden and Sims 1979). The way in which the consultant-client relationship is managed is expected to have a profound influence on the outcome of the group support and so upon the success of facilitation.

Issues that may be significant in managing the consultant-client relationship in a designed manner are: working with the client in the choice of group participants, analysing the power of participants in relation to the specific issue being addressed, determining the particular method of follow through after decisions have been made in a group situation. These issues are related to the need to attend to the existing social order of the group prior to a workshop and the process of creating a new social order which can be maintained after the workshop. This discussion with the client hopes to elicit some of the invisible objectives of the GDN workshop (Friend and Hickling 1987) and the organisational politics (Eden et al. 1979). Conversations that accept the significance of organisational politics typically show the client that the consultant has some understanding of the reality of organisational life and can positively impact consultant-client trust. Politics in problem solving does not, as is often

presumed, only involve personal ambitions but usually derives from genuine differences of view about what is best for the organisation, and so fighting for (making 'claims' (Nutt 2002) and building coalitions to support those views. Managing this negotiation across a range of claims is the key aim of a GDN workshop.

Implication: Organisational politics is inevitable – don't ignore it.

Related chapters: **Kaur and Carreras** consider the early preparations for a GDN workshop.

### *Relationship between method, facilitator and situation*

The extent to which method and facilitator and setting are able to converge can be regarded as a significant dimension in evaluating facilitation. Thus issues of matching personal style to method are often considered important (see Cropper 1990), however the congruence between style, method and the problem setting needs to be considered in relation to success of facilitation. The ability of the facilitator reflects a system of three aspects: facilitator, methodology, and group support; so that a contingency approach can be taken to managing a wide range of characteristics of the situation.

Implication: Don't use a hammer to drive a screw.

### *Stage management and disaster planning*

There is anecdotal evidence that successful facilitators are pessimists, in the sense that they prepare for facilitation episodes from a disaster planning perspective. *Robust* planning which



recognises a wide "trumpet of uncertainty" (Rosenhead 1989) - may relate to accepting the need for interactive facilitation, rather than either reactive or proactive facilitation?

It seems clear that many facilitators pay particular attention to physical environment and "trivialities" (Eden 1990; Hickling 1990; Huxham 1990). The setting for GDN episodes can be important. The requirement for off-site workshops means that facilitators can, if not careful, be subjected to the bizarre settings determined by the overnight staff in the hotel, who take it upon themselves to 'tidy' the careful setup created earlier by the facilitator. Hotel staff have a fondness for the 'board-room' setup. The facilitator dependence of creating a boundary object that is transition (for example, flip chart papers) can find walls where attaching flip chart sheets is not permitted, wood panelling means there is no flat wall, etc.

Implication: Being realistic about the potential for disaster is not the same as being pessimistic.

#### *Expectation setting – contracts*

Some facilitation episodes involve a lengthy intervention involving work on strategic issues that are intractable and messy. Facilitation approaches may or may not reflect the contingent development of the intervention - contingencies that may for example dictate a brief intervention of a couple of hours, or a two-day workshop, or one full day workshop each month for a couple of years. Lengthy interventions often require the use of a 'tight' contract of engagement for the facilitator. Contracts can be disastrous for the effectiveness of an intervention. By the nature of a consultant-client relationship the effective intervention by the facilitator/consultant means that the nature of the situation to be addressed will (or should) change over time (Eden and Ackermann 2004). If the situation is changing then the

nature of the engagement changes and so the contract becomes out-dated. However, it is usually very difficult to change the contract and so both client and consultant find themselves working on the wrong problem (Shakun and Martinovski; Mitroff and Featheringham 1974).

Developing contracts for GDN workshops can be highly problematic because of what Tully et al (2018) call the “value paradox”: “consultant attempting to sell a [GDN] intervention will struggle to articulate value to clients in terms that are commercially meaningful *prior* to the intervention being enacted. Thus, in order to win a contract to deliver a [GDN] intervention, the consultant must first resolve this puzzle” (p1).

Implication: When possible the ‘contract’ should be established (not necessarily written) so that the assignment can be staged, with a ‘new’ contract written often. For example, with one-day GDN workshops it is possible to contract for one-day and then reassess the contract at the end of the workshop, with an option for the requirement of no further involvement of the consultant, because enough has been achieved.

### **What do clients want: ‘Selling’ GDN Support**

“I want to get our thinking straight” is probably the most common phrase used when discussing what a client wants from the use of a GSS. However, this implies they have at least some understanding of a GSS. This understanding typically comes from (in order of likelihood): i) word of mouth from those having experienced a GDN/GSS workshop, ii) having had a direct experience as a participant, or iii) having read something about them in a Journal. In all of these instances a follow-up, prior to a workshop, with a brief and punchy

one-page description has been important. Very often demand comes from a client who has “tried all other methods to resolve the issue we face” – in other words desperation.

Desperation can provide an experience which is successful and so leads to other uses by the same client/group (see Ackermann and Eden in this book).

But success does not come from the use of the GSS (or GDN method) alone, rather it comes as much from the professionalism of the facilitator. A key aspect of professionalism derives from sympathy and empathy for the realities of managerial life. A recognition that organisational politics inevitably follows from agreeing ways forward. Change of any sort implies winners and losers.

Relieving some ‘pain’ of the client must be regarded as a crucial first step of the intervention (Eden and Ackermann 2004). But, the reality of organisational life means “the salience and surfacing of issues comes and goes within the complex milieu of organisational life (Dutton and Ashford 1993; Dutton et al. 1983)” (from Eden and Ackermann 2004). This means that the nature of the ‘pain’ will likely change during the use of the GSS – the GSS work leads to a restructuring of the issue. The ‘script’ (Ackermann et al. 2011) for the intervention needs to be flexible, recognising also that agreements are often reached before analysis is complete. But, also the notion of ‘pain’ recognises the significance of emotion in problem definition.

Of course all of these issues of professionalism imply that facilitation is as important, or more important, than the GSS as a tool – a good process badly facilitated will not help (Ackermann and Eden 2011). Good facilitation means paying attention to trivialities – the ‘boring’

aspects of ensuring success such as room design and refreshment design (Eden 1990; Hickling 1990; Huxham 1990).

Finally, it is sometimes important to remember that the symbolic use of external ‘help’ is designed to give the impression of action (Brewer 1981) rather than to lead to action.

Tully et al. 2018) recently provided one of the first discussions about the issues in selling soft-OR (akin to GDN support). The issues they discuss have similarity to some of the issues in selling the use of GGN methods and tools to organizations.

### **Future Research**

A special issue of the GDN journal (October 2018) focused on Micro-Processes in Group Decision and Negotiation: Practices and Routines for Supporting Decision Making in GDN type workshops. This issue of the journal was the first to explore in depth a range of behavioural aspects of decision support through detailed analysis of workshops providing group decision support.

This chapter follows from this attention to behavioural issues and recognises the research developments demonstrated by this issue of the journal. The recent developments in the microanalysis of GDN workshops is moving the field forwards at an impressive rate (Tavella and Franco 2015). The renewed focus, that develops the focus of researchers in the 70’s and 80’s (Eden 1993; Eden, Jones, and Sims 1983; Eden et al. 1981; Jackson and Keys P. (Eds.) 1987; Jackson, Keys, and Cropper 1989; Sims et al. 1981) on what is now labelled as Behavioural OR is building more interest in the softer aspects of group decision and

negotiation. Most of the 14 topics presented in this paper warrant further exploration through focused research.

However research in the GDN field is problematic. Much can be discovered and used in GDN developments through traditional controlled experiments (to the extent they can be controlled. “A theory of subatomic particles or of the universe— right or wrong—does not change the behaviors of those particles or of the universe. If a theory assumes that the sun goes round the earth, *it does not change what the sun actually does*. So, if the theory is wrong, the truth is preserved for discovery by someone else. In contrast, a management theory—if it gains sufficient currency— changes the behaviors of managers who start acting in accordance with the theory” (Ghoshal 2005 p77: my emphasis). This simple statement suggests that Action Research (Eden and Ackermann 2018) might be, at least as helpful, or possibly more helpful in moving the GDN field forward (see also the debate: Finlay 1998, Eden 2000).

Beyond the above recent developments, the following topics are particularly deserving of more attention:

- The role of emotion in negotiation and the ways of managing emotion – extending and building on the work of, in particular, Martinovski 2010, Martinovski 2014) in the GDN field (Martinovski).
- More attention to operationalising some of the attractive negotiation theories that are relevant to group decision making and exploring how apparently conflicting theories appear to work in practice (Howick and Ackermann 2011).
- The impact of the requirements for traditional contracts when both internal and external facilitators are used.

- How trust develops between consultant and client and facilitator and group.
- How to judge the balance between seeking enough consensus to gain the energy for implementation versus encouraging ‘group-think’ through too much consensus. A better understanding of ‘problem finishing’.
- How to make better use of the power of analysis techniques in GDN (for example, MCDM, Game Theory in its developed forms) that imply precision and a static definition of the situation and cannot be flexible (in transition) enough to recognise their role in changing cognition.

These research topics imply a better use of multi-disciplinary teams that can bring to bear more variety in theory. However, these research topics imply attention to the reality of organisational life and less emphasis on research undertaken with groups who have no future and no past (even though much can be learned from such research).

## References

Ackermann F (1996). Participants Perceptions on the Role of Facilitators using Group Decision Support Systems *Group Decision and Negotiation* 5:93-112.

Ackermann F, Andersen DF, Eden C, Richardson GP (2011). ScriptsMap: a tool for designing strategy workshops *Omega* 39:427-434.

Ackermann F, Eden C (1999) Contrasting Single User and Networked Group Decision Support Systems. In De Vreede GJ, Ackermann F (eds.) *Proceedings of the 10th Euro GDSS*, Copenhagen, 22nd June 1999. pp83-108

Ackermann F, Eden C (2010) The Role of Group Support Systems: Negotiating Safe Energy. In Kilgour DM, Eden C (eds.) *Handbook of Group Decision and Negotiation*, Springer, Dordrecht. pp285-299

Ackermann F, Eden C (2011) *Making Strategy: Mapping Out Strategic Success*. Sage, London.

Ackermann F, Eden C (2011). Negotiation in Strategy Making Teams: Group Support Systems and the Process of Cognitive Change *Group Decision and Negotiation* 20:293-314.

- Ackermann F, Eden C, Pyrko I (2016). Accelerated Multi-Organization Conflict Resolution Group Decision and Negotiation 25:901-922.
- Ackoff RL, Emery F (1972) On Purposeful Systems. Tavistock, London.
- Barnard C (1938) The Functions of the Executive. Harvard University Press, Cambridge, MA.
- Berger J (1974) Ways of Seeing. BBC-Pelican Books, London.
- Berger PL, Luckmann T (1966) The Social Construction of Reality. Doubleday, New York.
- Black LJ, Andersen DF (2012). Using visual representations as boundary objects to resolve conflict in collaborative model-building approaches Systems Research and Behavioral Science 29:194-208.
- Brewer GD (1981). Where the twain meet: reconciling science and politics in analysis Policy Sciences 13:269-279.
- Carlile PR (2002). A Pragmatic View of Knowledge and Boundaries: Boundary Objects in New Product Development Organization Science 13:442-455.
- Cropper S (1990) The Complexity of Decision Support Practice. In Eden C, Radford J (eds.) Tackling Strategic Problems, Sage, London. pp
- Day R, Day J (1977). A Review of the Current State of Negotiated Order Theory: an appreciation and a critique The Sociological Quarterly 18:126-142.
- de Geus A (1988). Planning as learning Harvard Business Review March-April:70-74.
- Dutton JE, Ashford SJ (1993). Selling issues to top management Academy of Management Review 18:397-428.
- Dutton JE, Ashford SJ, O'Neill RM, Lawrence KA (2001). Moves That Matter: Issue Selling and Organizational Change Academy of Management Journal 44:716-736.
- Dutton JE, Fahey L, Narayanan VK (1983). Understanding Strategic Issue Diagnosis Strategic Management Journal 14:307-323.
- Eden C (1978). Operational Research and Organizational Development Human Relations 31:657-752.
- Eden C (1987) Problem Solving or Problem Finishing? In Jackson MCKP (eds.) New Directions in Management Science, Gower, Hants. pp97-107
- Eden C (1989) Operational Research as Negotiation. In Jackson MC, Keys P, Cropper SA (eds.) Operational Research and the Social Sciences, Plenum Press, NY, 43-50
- Eden C (1990) Managing the Environment as a Means to Managing Complexity. In Eden C, Radford J (eds.) Tackling Strategic Problems: the role of group decision support, Sage, London. pp

Eden C (1990) The Unfolding Nature of Group Decision Support. In Eden C, Radford J (eds.) Tackling Strategic Problems: the role of group decision support, Sage, London. pp48-52

Eden C (1992). A Framework for Thinking About Group Decision Support Systems (GDSS) Group Decision and Negotiation 1:199-218.

Eden C (1992). Strategy Development as a Social Process Journal of Management Studies 29:799-811.

Eden C (1993). From the Playpen to the Bombsite: the changing nature of Management Science Omega 21:139-154.

Eden C (1994). Cognitive mapping and problem structuring for system dynamics model building System Dynamics Review 10:257-276.

Eden C (2000). On evaluating the performance of GSS: furthering the debate European Journal of Operational Research 120:218-222.

Eden C, Ackermann F (2004) Use of 'soft-OR' models by clients - what do they want from them? In Pidd M (eds.) Systems Modelling: Theory and Practice, Wiley, Chichester. pp146-163

Eden C, Jones S, Sims D (1983) Messing About in Problems. Pergamon, Oxford.

Eden C, Jones S, Sims D, Smithin T (1981). The intersubjectivity of issues and issues of intersubjectivity Journal of Management Studies 18:37-47 .

Eden C, Sims D (1979). On the nature of problems in consulting practice Omega 7:119-127.

Eden C, Sims D (1982). Definicao de Problemas Entre O Cliente e o Consultor Analise Psicologica 23:337-346.

Eden C, Sims D, Jones S (1979). Policy Analysis and Organizational Politics European Journal of Operational Research 3:207-215.

Eden C, Ackermann F (1998) Making Strategy: The Journey of Strategic Management. Sage, London.

Eden C, Ackermann F (2013). Problem structuring: on the nature of, and reaching agreement about, goals EURO Journal of Decision Processes 1:7-28.

Eden C, Ackermann F (2018). Theory into practice, practice to theory: Action Research in method development European Journal of Operational Research 271:1145-1155.

Finlay P (1998). On Evaluating the Performance of GSS: furthering the debate European Journal of Operational Research 107:193-201.

Fisher R, Brown S (1988) Getting Together: building a relationship that gets to yes. Houghton-Mifflin, Boston, MA.



- Fisher R, Shapiro D (2007) *Building Agreement: Using Emotions as You Negotiate*. Random House, London.
- Fisher R, Ury W (1982) *Getting to Yes*. Hutchinson, London.
- Fisher R, Ury WL, Patton B (2011) *Getting to Yes: Negotiating Agreement Without Giving In*, Revised Edition. Penguin, New York.
- Franco LA (2013). Rethinking Soft OR interventions: Models as boundary objects *European Journal of Operational Research* 231:720-733.
- Friend J, Hickling A (1987) *Planning Under Pressure: The Strategic Choice Approach*. Pergamon, Oxford.
- Ghoshal S (2005). Bad Management Theories Are Destroying Good Management Practices *Academy of Management Learning and Education* 4:75-91.
- Harvey J (1988). The Abilene Paradox: the management of agreement *Organizational Dynamics* Summer:17-34.
- Hickling A (1990) 'Decision Spaces': A Scenario about Designing Appropriate Rooms for Group Decision Management. In Eden C, Radford J (eds.) *Tackling Strategic Problems: the role of group decision support*, Sage, London. pp169-177
- Howick S, Ackermann F (2011). Mixing OR Methods in Practice: Past, Present and Future Directions *European Journal of Operational Research* 215:503-511.
- Huxham C (1990) On Trivialities in Process. In Eden C, Radford J (eds.) *Tackling Strategic Problems: the role of group decision support*, Sage, London. pp162-168
- Huxham C, Cropper S (1994). From Many to One - and Back: an Exploration of Some Components of Facilitation *Omega* 22:1-11.
- Jackson MC, Keys P, Cropper SA (1989) *Operational Research and the Social Sciences*. Plenum Press, New York.
- Jackson MC, Keys P. (Eds.) (1987) *New Directions in Management Science*. Gower, Hants, UK.
- Janis IL (1972) *Victims of Group Think*. Houghton Mifflin, Boston, MA.
- Janis IL (1989) *Crucial Decisions*. Free Press, New York.
- Jones R, Lakin C (1978) *The Carpetmakers*. McGraw-Hill, London.
- Kim WC, Mauborgne RA (1998). Procedural justice, strategic decision making, and the knowledge economy *Strategic Management Journal* 19:323-338.
- Martinovski B (2010) Emotion in Negotiation. In Kilgour DM, Eden C (eds.) *Handbook of Group Decision and Negotiation*, Springer, Dordrecht. pp65-86
- Martinovski B (2014) *Emotion in Group Decision and Negotiation*. Springer, Amsterdam.

- Mitroff II, Featheringham TR (1974). On Systemic Problem Solving and the Error of the Third Kind Behavioural Science 19:383-393.
- Nutt PC (1984). Types of organizational decision processes Administrative Science Quarterly 29:414-450.
- Nutt PC (2002) Why Decisions Fail: avoiding the blunders and traps that lead to debacles. Berrett-Koehler Inc, San Francisco.
- Perrow C (1986) Complex Organizations (3rd Edition). Random House, New York.
- Pettigrew A (1977). Strategy formulation as a political process International Studies of Management and Organization 7:78-87.
- Quick KS, Feldman MS (2014). Boundaries as Junctures: Collaborative Boundary Work for Building Efficient Resilience Journal of Public Administration Research and Theory doi:10.1093/jopart/mut085.:
- Rosenhead J (1989) Rational Analysis for a Problematic World: Structuring Methods for Complexity, Uncertainty and Conflict. Wiley, London.
- Rouwette EAJA (2003) Group Model Building as Mutual Persuasion. Wolf Legal Publishers, Nijmegen, The Netherlands.
- Scheper W (1991) Group Decision Support Systems: an inquiry into theoretical and philosophical issues. Thesis Katholieke Universiteit Brabant., Tilburg.
- Scheper WJ, Faber J (1994). Do Cognitive Maps Make Sense Advances in Managerial Cognition and Organizational Information Processing 5:165-185.
- Simon HA (1976) From substantive to procedural rationality. In Latsis SJ (eds.) Method and Appraisal in Economics, Cambridge University Press, Cambridge. pp
- Sims D, Eden C, Jones S (1981). Facilitating Problem Definition in Teams European Journal of Operational Research 6:360-366.
- Strauss A (1978) Negotiations: varieties, contexts, processes and social order. Jossey-Bass, San Francisco.
- Strauss A, Schatzman L (1963) The Hospital and its Negotiated Order. In Friedson E (eds.) The Hospital in Modern Society, Macmillan, New York. pp147-169
- Tavella E, Franco AL (2015). Dynamics of Group Knowledge Production in Facilitated Modelling Workshops: An Exploratory Study Group Decision and Negotiation 24:
- Thibaut J, Walker L (1975) Procedural Justice: A Psychological Analysis. Lawrence Erlbaum, Hillsdale, NJ.
- Tully P, White L, Yearworth M (2018). The Value Paradox of Problem Structuring Methods Systems Research and Behavioral Science DOI: 10.1002/sres.2557:
- Tyler TR, Blader SL (2000) Cooperation in Groups: Procedural Justice, Social Identity, and

Behavioural Engagement. Psychology Press, Oxford.

Vickers G (1965) The Art of Judgement. Harper and Row, London.

Winnicott DW (1953). Transitional Objects and Transitional Phenomena: a study of the first not-me possession The International Journal of Psych-Analysis XXXIV Part 2:89-97.