

Behavioural issues in the practical application of scenario thinking: cognitive biases, effective group facilitation and overcoming business-as-usual thinking

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ABSTRACT

In this chapter, we discuss and analyse the use of scenario interventions in organisations to overcome business-as-usual thinking - by promoting divergence of opinion and subsequent debate about the nature of the future. We shown that cognitive biases at the level of individual participants in a scenario workshop can both help and hinder the progression of scenario thinking and we go on to demonstrate how expert facilitation of the group process can help generate process-gain with the result that individually-held overconfidence is challenged and attenuated.

Key-words: business-as-usual thinking, organisational inertia, cognitive biases, overconfidence, facilitation, group behaviour, scenario thinking.

Many companies typically tend to focus on their immediate business environment. They spend most of their energy and resources on their familiar set of products, customers, competitors, technologies, and stakeholders. Psychological research has shown that such a focus risks missing key signals from the peripheral environment. A false sense of business-as-usual mind-set can creep into organisations that are riding on the wave of a successful past. What is needed is not only to sense incipient change, but also to anticipate change, and know where to look more carefully for clues. Seemingly random or disparate pieces of information - that at first appear to be background noise – need to be recognized as part of a larger pattern. The scenario thinking method focuses on enhancing a process of discussion and debate within a top management team, in contrast to the traditional, more rationalistic approach involving the search for a single optimal strategy. As we shall show, scenario thinking allows managers to better recognise and interpret weak signals of change that are already emerging in the present. It facilitates a shift in managers' mental models and provides a challenge to counter business-as-usual thinking.

In the process of a scenario thinking intervention within an organization, team members must use their knowledge of past and current events within the market, firm, and customer-base to help anticipate the future. However, cognitive biases are thought to hinder the effectiveness and progression of scenario thinking. To date, a small number of researchers have published work analysing the use of certain biases and heuristics within scenario thinking, which we further discuss in this chapter.

Within the group-based setting of a typical scenario workshop, a deliberate and high degree of “turbulence” is promoted in order to influence the process of surfacing codified and tacit knowledge with the subsequent aim of using this knowledge to enrich the group's framing of plausible futures. Given the complexity of scenario workshops, the many process steps involved and the aforementioned turbulence, an experienced facilitator is typically used to support and guide participants through the process. However, facilitation of scenario interventions is not without problems and issues. Indeed, (Eden, 1992) contended that learning within strategy development is a social process with power and politics inherent in this process. The role of facilitation in this social

process acts to achieve negotiated conclusion to a scenario development process (Ackerman & Eden 2012).

1.0 The prevalence of business-as-usual thinking in organizations

Companies typically tend to focus on their immediate environment. They spend most of their energy and resources on their familiar set of products, customers, competitors, technologies and stakeholders. Especially in wake of limited resources, they generally tend to solve short-term problems in order to keep the business running. Psychological research has shown that a such a focus risks missing key signals from the periphery (Schoemaker et al, 2013)). Also, organisations that have been successful in the past can fail to adapt and change as the external environment changes. In fact, when business conditions change, the most successful companies can be the slowest to adapt. It is ironic that many factors that led to a company's success in the first place – focus, confident leadership, corporate culture etc. – also are instrumental in company's decline. The strategic frames, the processes, the relationships, and values with which the managers operate lead to an organisational inertia that hinders sensing, digesting, and acting in a dynamic environment that demands agile and decisive actions. A false sense of business-as-usual mind-set creeps into organisations that are riding on waves of successful past. As Miller (1992) points out in his book on the Icarus Paradox, "Failure teaches leaders valuable lessons, but good results only re-inforce their preconceptions and tether them more firmly to their tried-and-true recipes". He continues, "stellar performers view the world through a narrowing telescope. One point of view takes over; one set of assumptions comes to dominate. The result is complacency and overconfidence". Moreover, one source of momentum is structural memory, which in essence relates to memory the organisation builds up as a result of a perceived successful strategy; the more successful it is, the more it will be implemented routinely, automatically, and unquestioningly. One underlying assumption inherent in such situations is that all other variables, most importantly those related to external environment, have not changed.

A classic case-in-point is that of the company Kodak. Kodak was a market leader with tremendous market share and technology leadership in photography based on films. The camera/film industry was hit by a disruptive innovation (digital imaging) that destroyed the traditional business model based on films. Kodak was fully aware of the emergence of digital imaging, but it still struggled to respond effectively. From 2003 till 2012, Kodak went through multiple restructuring and business model re-innovation efforts. Kodak finally filed for chapter 11 bankruptcy in 2012, with enormous challenges and a bleak future ahead (Gavetti et al, 2005).

Another phenomenon, called hubris, is worth mentioning in this context. There is some evidence that hubris, defined as extreme pride or self-confidence, is salient with people in power, such as CEOs of companies. Petit and Bollaert (2012) have looked into the negative effects of CEO hubris on firm performance. Many top managers climb the ranks based on their past performance. Previous success leads them to strongly believe in their strategic intent thus far. Their confidence level increases with each step up the ladder. Over-confident people with power can be an extreme liability for a company. They tend to become overbearing (“I know better because I have succeeded in the past”), complacent (especially if they see no urgency to change, their experience and deep pockets will see them through) and blinkered (they seek information that supports their existing beliefs and ignore information that doesn’t fit). Of course, not every successful manager is overbearing, complacent and blinkered. Rather, these are tendencies every manager should be aware of and guard against.

Regardless of past success, most companies limit their vision within the operating boundaries of their daily business. Few extend it to a peripheral vision involving remote markets, new competitors, emerging technologies and seemingly tangential information. What is needed is not only to sense incipient change, but also to anticipate change and know where to look more carefully for clues. Seemingly random or disparate pieces of information first appear to be background noise, but which can, potentially, be recognized as part of a larger pattern. Companies that are able to anticipate the market changes and quickly adapt their strategies are the ones with sustained success. These are companies that constantly try to integrate a wide range of market signals in their strategy making process and encourage a strategic conversation within the company. In his classic HBR paper, De

Geus (1997) analyzed organizations that successfully thrived over many years. He found high corporate “mortality rates” - for example, by 1983, one-third of the 1970 fortune 500 companies had been acquired, broken into pieces or merged with other companies. One of the features common to some of the most resilient organizations is their sensitivity to the world around them. Given the extremely dynamic and complex environments that companies face, it is absolutely crucial that companies install structures and processes that allow them to sense, recognize, react, and adapt to their external context.

Scenario thinking, when practiced in a comprehensive and holistic manner, is a powerful method that can allow organisations to not only counter many of the perils described above, but also to build sustained competitive advantage. Sull (2005) uses the term “fog of the future” to describe unpredictability. In an environment with deep uncertainties, the quest for the one perfect strategy can be a futile exercise. Instead, companies require structures and processes that allow them to be vigilant, open-minded, and flexible enough to react fast. Ideally, mechanisms should be in place to counter biases in day-to-day decision making and facilitate effective use of available information. The scenario thinking method provides such a process, in contrast to the traditional, more rationalistic approach involving the search for one optimal strategy.

1.1 Scenarios as an antidote

Scenario thinking method can be used for various purposes. Van der Heijden et al (2002) argued that it is very important to have clarity on the purpose for using this method. It can be permanently anchored in the regular strategic planning process or can be used to raise and/or answer specific strategy questions. The process involves generation of plausible scenarios that adequately capture all the perceived trends and uncertainties. The scenario method provides a structure to understand the business environment and provides challenge to business-as-usual thinking. During a scenario workshop, managers are forced to think through their assumptions and thus can identify inconsistencies in their own thinking and in that of other participants. At the same time, scenario work

necessitates undertaking a detailed analysis of the external world, challenges team-members' perceptions, stretches their mental models, and helps develop a shared view of how the uncertainties and trends will develop and interact in the focal business context. The process thus has an overall effect of providing enhanced understanding and challenge to conventional thinking. Most managers use mental anchors from the recent past to encode future change. However, using past events can be highly misleading. Scenario thinking allows managers to better recognise and interpret weak signals. It facilitates a shift in mental models and systematically counters business-as-usual thinking. The process enables the organisation to become what is known as a "learning organisation" - developing mechanisms to challenge its day-to-day decisions, and developing structures to sense and anticipate external changes.

However, since scenario thinking is based on the judgments of participants in the process, what if those judgments are, in themselves, of poor quality? Perhaps judgmental flaws and biases at the level of the individual manager will be magnified rather than reduced with the group-based scenario workshop? It is to these issues that we turn next.

2.0 The prevalence of heuristics and potential biases within scenario thinking

In any scenario development process, team members must use their knowledge of past and current events to help anticipate the future (van der Heijden et al, 2002). The scenario method constructs a range of plausible futures to provide alternative frameworks by which an organisation can gain early recognition and facilitate strong organisational responses. In other words, the aim is to help management teams think more broadly, rather than determine what they should think. The wider the range of plausible futures an organisation can envision, the better position they will be in to anticipate the opportunities and threats that may emerge. With this focus in mind, biased thinking and misapplied heuristics can diminish the effectiveness and progression of scenario planning. As illustrated in the Icarus Paradox – and discussed in section 1.0 - a business-as-usual perspective can

steer a firm into a narrow view of the future, resulting in a lack of ability to adjust to market and environmental changes.

In the 1970's, Kahneman and Tversky's work on cognitive biases and heuristics brought a new wave of insight into the field of judgment and decision making. They expanded on the perspective that cognitive experience is a dual system. System 1 constantly monitors the environment and makes basic assessments with little cognitive effort. System 2 directs attention and searches memory for answers. Thus, system 1 thinking is heuristic and can be biased whereas system 2 thinking is engaged when complexity is consciously analysed – as in a scenario thinking intervention within an organization (Kahneman, 2011).

To date, a small number of studies have empirically investigated the effects of cognitive heuristics – and potential resultant biases - in scenario thinking. The studies take one of two perspectives, either how biases affect the scenario process, or how the scenario process eliminates certain biases.

The most widely investigated bias in the literature is confidence. As Kahneman (2011, p 17) stated, “We are prone to overestimate how much we understand about the world and to underestimate the role of chance in events.” A variety of experimental methods have been employed to measure levels of confidence in forecasting efforts after participating in scenario thinking exercises. Confidence – or *overconfidence* as with Schoemaker (1993) and Bradfield (2008) – leads a group (or individual) to over-value one's own opinion on a subject, independent of the truth. This has the consequence of narrowing, rather than broadening perspectives during the scenario process. Schnaars and Topol (1987) found that reviewing scenarios increased individuals' confidence in their own generated forecasts, compared to just reviewing graphical representations of past sales. Kuhn and Sniezek (1996) found similar results with their participants. Reviewing either single or multiple scenarios, regardless of message, increased confidence in participants' generated forecasts compared to those who reviewed no scenario. However, confidence in their forecasts decreased as the projected date moved farther into the future. That is, forecasting for 10 years in the future was given greater confidence ratings than for 20 years. Bradfield (2008) used observational measures to assess

overconfidence in group work. Each group reflected what was termed an “embedded cognitive script” (p 209), in which scenarios appeared to come from a pre-determined script of factors with causal links that largely went unchanged even after suggestions of more extreme developments, more pressing factors, and interventions by an expert facilitator, thus reflecting overconfidence and belief perseverance in their generated scenarios.

Schoemaker (1993), on the other hand, compared confidence ranges before and after participants generated their own scenarios, as opposed to reviewing. Unlike the previous studies, Shoemaker’s experiment showed that overconfidence decreased (i.e. increased confidence ranges) as an effect of scenario generation. The conscious exercise of thinking broadly about future possibilities helped counter the natural tendency to form a myopic view of the future (system 1 thinking). Sampling from experts in the field of U.S. freight transportation, Phandis, et al (2014) found somewhat similar results to Schoemaker. Experts worked with a long-range planning horizon, generated a single scenario as a group, then evaluated all scenarios from each group. Confidence levels in group forecasting did not increase after reviewing multiple scenarios. However, they did not decrease either. Furthermore, confidence levels were less likely to change after reviewing only a single scenario if prior assessments of the scenario already had the highest level of confidence.

It is clear that investigations into confidence and scenario planning yield varying, even opposing, results. This could be due to the different measurement tools, different participant samplings (undergraduate and MBA students, CEOs, experts, and colleagues), the difference between reviewing verses generating scenarios, as well as the specifics of the scenario topics. What is important to note, is that confidence is an important element in the decision making process, and as such, requires our awareness to its effects and use. The more confident that an individual is in his/her own judgment, the less likely he/she will be to willingly change his judgment. For scenario planning to be effective, both participants and practitioners must be open to differing views and opinions, and allow for malleability and novelty throughout the process.

A variety of other cognitive biases have also been explored in relation to scenario planning. Meissner and Wulf (2013) compared the effects of the full scenario process against a partial scenario process as well as a different traditional strategic planning exercise and their effects on the framing bias and decision quality. When people's judgments are influenced by how information is presented they are said to be working with a framing bias (Tversky and Kahneman, 1981). An example of the framing bias can be seen when a firm is willing to adopt a business strategy that shows a 60% success rate, but is unwilling to adopt the exact same business strategy when it shows a 40% failure rate. Results of the study revealed that a framing bias influenced the decision process in all groups except those that engaged in a full scenario or strategic planning process. However, participating in the full scenario process reduced the framing bias more than the comparable strategic planning tools. Furthermore, decision quality was evaluated between the full scenario analysis group and the traditional strategic planning group. Meissner and Wulf's results demonstrated that participating in the full scenario process enhanced individual decision quality more than traditional strategic planning tools.

Bradfield's (2008) experimental groups showed use of the availability heuristic by focusing their initial exploratory discussions toward more highly publicised and recent events, even when shown that some events were more rare and less threatening than other unconsidered events. The availability heuristic describes the tendency to overestimate the probability of events that are more easily remembered, that is, more *available* to recall from memory (Tversky and Kahneman, 1973). As a consequence, people tend to underestimate the probability of less easily remembered events. Schoemaker (1993), on the other hand, revealed that the scenario process could use one cognitive bias to counter a possibly more damaging bias. By requiring participants to reflect on extreme scenarios – rare, yet plausible events – the belief bias appeared to counter the more commonly employed availability heuristic. Engagement in the scenario process prompts team members to devote attention to events that are less thought-about and lie beyond the immediately recalled. By doing this, Schoemaker found that broadening one's focus to consider rare, yet plausible events allowed such events to be perceived as more believable than when normally evaluated. By increasing the believability of possible future events, the scenario thinking process guides team- and individual-

problem solving toward a deeper understanding of the world in which the organisation operates – beyond the readily available business-as-usual.

Tetlock (2006) found similar results with his study, but expanded a bit more on the reasoning. Not only did engaging in a scenario process increase the imaginability of a variety of plausible outcomes, and thus the believability of those outcomes, he found the exercise has a countering effect on the hindsight bias as well. Also known as the *I-knew-it-all-along* effect, this is a failure of our autobiographical memory. In the face of new evidence, people have a tendency to misrepresent their original opinions when asked to reconstruct them, by showing a favouritism for the new evidence. However, through unpacking, reconstructing, and focusing on alternatives throughout the scenario process, imaginability is extensively engaged. This leads to more accurate recall of previously offered factors. Tetlock holds that the hindsight bias limits our appreciation of our previously imagined possibilities. An important element to scenario planning is not to discredit too quickly previously offered forecasts and driving forces, because beliefs that were reasonable prior to new information can still offer beneficial support in other stages of the process.

We conclude that the analysis of complexity inherent in scenario thinking – i.e., System 2 thinking - can be helpful in overcoming bias in judgments/assessments derived by the unconscious use of System 1 mechanisms, but can also be informed by the same mechanisms. At the same time, bias may be a by-product that is magnified by use of the scenario development process. As such, the facilitator of any scenario exercise must be alert to the potential issues that may arise, and that we have documented and discussed. Success is found in the right balance of theory and imagination driven thinking. Developing this theme of bias and remedies, we next turn to the scenario intervention process itself. How can a management team be best facilitated to think deeply about the future?

3.0 Facilitating scenario interventions within organizations

Within the group-based setting of a typical scenario workshop, a deliberate and high degree of “turbulence” is promoted in order to influence the process of surfacing codified and tacit knowledge

(van der Heijden et al, 2002), with the subsequent aim of using this knowledge to enrich the group's framing of plausible futures. Turbulence can perhaps be equated to "equivocality" - described by Ackerman and Eden (2012:24) as a fuzziness, within which negotiations can be more effective as this fuzziness provides participants with the opportunity to change their mind, essentially saving face. Given the complexity of scenario workshops, the many process steps involved and the aforementioned turbulence, an experienced facilitator is typically used to support and guide participants through the process. However, facilitation of scenario interventions is not without problems and issues. Van der Heijden et al, (2002) argued that use of a facilitator from within a host organization - but who has no direct expertise in the substantive scenario issue - may not command the participants' authority to play the facilitator role effectively. This can be detrimental to perceived success of the intervention. In a study of MBA students within a teaching-based scenario intervention, Bradfield (2008) found that although the student facilitator highlighted problematic issues in surfacing driving forces and causality, the group did not act on these alerts and continued, to develop their own initial ideas. Members of this facilitated group concluded that the facilitator's interventions were passive and ineffective.

Indeed, Grinyer (2000) asserts that an external facilitator is more likely to be accepted as an objective party, can remain impartial throughout the proceedings, and is therefore suitably positioned to challenge established views held by senior management, without fear of reprisal. To achieve the role effectively, the facilitator requires skill in promotion of the sharing of divergent views within a scenario workshop - encouraging debate and open conversation. Ackerman & Eden (2012: 25) suggest that if a facilitator is liberal in the praising group members for contributions, (especially in the early stages of the workshop), this will provide members with the incentive to defend their contributions, thus the possibility of changing opinion may be inhibited. Allocating praise and credit is perhaps more beneficial in the later stages of the workshop, when the group members are in the process of reaching agreement. Within the scenario workshop setting, the facilitator should not contribute to the content of the group's discussion, rather the facilitator attends to member-provided content - given the interaction of content and process (Eden and Radford, 1990). If the group

members were to view the facilitator as an expert in content then this, coupled with his/her facilitator status, may adversely impact group members' ability to call upon their own expertise. Furthermore, Phillips & Phillips (1993) contend that explicit contributions by the facilitator will reduce his/her ability to observe and intervene in the on-going group process.

In a parallel literature, Schweiger and Sandberg (1986) found that where devils advocacy is adopted in a strategic decision making context - to stimulate challenge and disagreement - the decisions taken are of higher quality in comparison to those taken by teams who did not adopt the approach. Fostering an environment where diverse views can be openly shared and contested thus creates the conditions whereby business-as-usual thinking can be challenged. Similarly, Amason & Schweiger (1994) contend that cognitive conflict - termed by De Dru (2006) as task conflict, where there exist differences in judgements regarding a decision or choices of alternatives - is valuable. However, a scenario workshop facilitator needs to be sensitive to the fact that cognitive conflict may lead to relationship conflict which can adversely impact group work - since any criticism received may be viewed as personal criticism.

To ensure the engagement of all participants in any group-based activity, Korsgaard et al, (1995) emphasised the importance of using processes designed to create perceived procedural justice – where everyone's input is considered and valued. The facilitator, aware of the importance of eliciting views from all group members and in attempts to minimise participants periodically disengaging from the process, should stimulate the expression of varied interpretations and reduce the dominance of powerful stakeholders in any conversation – for example, those who may consistently and excessively consume air-time when asserting an opinion, at the expense of others. Indeed in the context of scenario planning, Hodgkinson & Wright (2002) highlighted how the dominating personality of a CEO adversely impacted a scenario intervention – even though the rules of procedural justice had been agreed with the CEO before the scenario intervention was initiated. Indeed, Ackerman & Eden, (2012) contend that the strategy making process should encourage diversity of views in order to open

up the strategic conversation, prior to seeking a convergence of views. The use of “transitional objects” De Geus, (1988) such as causality maps, which are continuously updated to capture the views of all participants can influence shifts in thinking since these tools encourage participants to consider alternative perspectives (Ackerman & Eden, 2012). Furthermore, Ackerman & Eden, (2012:25) contend that their “approach to the design of the facilitated support must recognise the role of some degree of anonymity in the causal maps used to record and encourage effective conversation”.

Within the scenario planning workshop, the facilitator must also be acutely aware of the importance of group composition and its effect, given focus on the generation of uncertainties, assessment and consideration of causality, impacts, and the development of scenario stories. Schwartz (2011) argued that within a scenario workshop, views that are not sufficiently diverse can influence the development of a rather restricted range of scenarios. Hodgkinson & Healey (2008) asserted that to augment group information processing capability, the composition of the scenario team should be heterogeneous in terms of background, roles, experiences, etc. Van der Heijden et al (2002:167) also recommend that the composition of the scenario team should be somewhat heterogeneous - since this will enhance the expression and generation of new information and perhaps trigger new thoughts on the inter-relationships between components of the scenarios that are in development. Moyer (1996), in a scenario planning intervention at British Airways, observed that group cohesion prevented the verbalisation of challenge within the groups of members’ implicit assumptions. The balance between the expression of divergent views and group cohesion is, in our view, a crucial one - since artificial consensus will lead to the development of simplistic scenarios. Additionally, early convergence of views will not provide sufficient opportunities for group members to alter their thinking.

Hodgkinson & Healey (2008) and Franco, et al, (2013) contend that membership composition of a scenario team will influence the effectiveness of the scenario planning intervention. Furthermore, powerful stakeholders who are scenario team members can also adversely impact the scenario intervention (Cairns et al, 2006). Also, the cognitive styles of the participants engaged in the workshop activities should be considered by the facilitator in terms of their impacts on the scenario development activity. For example, based on the Jungian model Jung (1923), Franco et al, (2013)

proposed that the presence of combinations of the four styles of information gathering and evaluation should be evaluated within the group-based membership. For example, any scenario group membership characterised solely by intuition thinking (NT) and intuition feeling (NF) members, namely a homogenous intuitive group, will be more effective - by optimistically engaging in social-emotional and task processes - thus experiencing high levels of commitment and satisfaction.. In such predictions of the success of group-based activity, it must be noted that the homogeneity of the group members relates to the cognitive styles of group members, rather than in similarities/difference in social background, age, role, education etc.

Hodgkinson & Clarke, (2007) argued that individuals who are analytically inclined may, in a scenario planning exercise, slow the proceedings given their inclination to approach the scenario development process in a rational argument-based, step by step manner. Whereas individuals who are intuitively orientated, in the sense that they prefer to gain an overview of issues rather than analyse details, will proceed more speedily through the scenario development process..

Indeed, the effectiveness of scenario interventions can also be impacted by an assertive facilitator bias, namely the “facilitator effect”, where, as asserted by Franco & Meadows, (2007), a facilitator identifies with participants of a similar cognitive type and consequently ends to disregard the views/inputs from participants of different cognitive styles. Given the facilitator is actively engaged in the scenario process, it can be difficult to disassociate oneself from the group and consequently the facilitator may then unintentionally associate with the individuals who display similar cognitive characteristics, discounting views that are perhaps different. Franco & Meadows (2007) suggested that in order to eradicate such potential bias, the facilitator should, a-priori, be aware of the participants’ cognitive styles as well as their own. Furthermore, the facilitator should be capable, through experience, of identifying when such a biasing situation is unfolding and take the necessary action to address the situation, perhaps by even-handedly restating alternative views and by summarising different positions neither positively or negatively, Grinyer (2000).

4.0 Conclusions

In summary, we have documented that scenario thinking interventions within organisations can provide a challenge to business-as-usual thinking. Such a challenge is non-adversarial and can be introduced as standard way that organisations are facilitated to think more broadly and deeply about their business environment. However, the scenario development process can have pitfalls and problems. Scenario thinking is based on judgments - and judgments are often produced by heuristic processes that may result in bias. These biases may be magnified rather than attenuated within the scenario development process. Additionally, the act of facilitating a group of individual managers to think about the future is problematic. The views of some group members may achieve, or be given, more influence on the in-development scenarios than the views of other participants. Clearly, the scenario workshop facilitator must be sensitive to both the individual cognitions and styles of each group member and to the on-going group-based processes and interactions.

In our analysis, the content of in-development scenarios can be improved, although indirectly, by the quality of the facilitation. The facilitator must be skilled in his/her ability to identify the on-going group dynamics and also possess the skills to successfully intervene when behaviours such as group-think are adversely impacting the search for information, the expression of divergent views or the consideration of alternatives - all of which contribute to subsequent shifts in group-based thinking and can overcome initial inherent bias. Effective intervention techniques such as “handing back in changed form” (Phillips & Phillips, 1993) can provide the participants with a different meaning regarding the focal situation - here the facilitator presents an analysis of a situation from a different perspective or frame, which assists the group in assigning new significance to the situation, overcoming initial overconfidence inherent in a singular framing. The facilitator must also be mindful of non-verbal cues and thus be able to quickly deduce their impacts to then effectively address the situation to ensure all participants are allowed equal air-time and that their contributions are accurately reflected in subsequent documentation. As Ackerman & Eden (2012, p282) noted, “good facilitators will seek to record what was meant rather than precisely what was said.”.

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Biographies

Stephanie Bryson is an independent management consultant operating in Financial Services and also Public Sector. Her background includes roles in strategy and project management. Stephanie is currently undertaking a DBA, specializing in scenario planning.

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Adarsh Murthy currently works in industry as a strategy consultant, leading change initiatives and strategy projects. After completing his full-time MBA from the London Business School, his interest in the psychology of decision making processes and the implications for day-to-day business decisions led him to pursue his DBA in scenario thinking.

George Wright is a professor at Strathclyde Business School. He has published widely on scenario thinking in a range of journals. His most recent book is “Scenario Thinking: Practical Approaches to the Future” (published by Palgrave Macmillan in 2011) which he co-authored with George Cairns.