

# **A Social constructionist's deconstruction of Royal Dutch Shell's scenario planning process**

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## **Abstract**

This paper undertakes a deconstruction of Royal Dutch Shell's (RDS) scenario planning process from a social constructionist perspective. The influence of RDS on the study and practice of scenario planning is huge. Its approach is copied by practitioners and advocated by consultants. Prolific academics in the field have benefited from practical experience with RDS that supplements their academic careers. This paper concentrates on the work of Kees van der Heijden and Paul J. H. Schoemaker as representing the most influential of these. Van der Heijden's six stage process to scenario development is critically analysed. The key points made in the paper are that the social and constructive natures of scenarios and scenario planning are ignored in the work of van der Heijden and Schoemaker, and that a misleading objectivity is claimed for a process that is fundamentally subjective. Implications of this for practice and research are discussed.

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## A social constructionist's deconstruction of Royal Dutch Shell's scenario planning process

...as philosophers say ... life must be understood backwards. But they forget the other proposition, that it must be lived forwards.

(Kierkegaard, 1843 *quoted in* Ingvar, 1985 p.127).

### Introduction

It is twenty years since Pierre Wack described Royal Dutch Shell's (RDS) use of scenario planning during the 1970s in Harvard Business Review (1985a & 1985b). These two articles have influenced both the theory and practice of scenario planning in the intervening period, and are rightly seen as the starting point for any scholar interested in the use of scenarios-in-practice. The influence of the RDS scenarios on the ensuing development of the field cannot be over-stated. This influence has been instrumental in the approach gaining status as a legitimate tool of the organizational strategist, and has seen RDS staff taking up positions as academic faculty (e.g. van der Heijden), or academic faculty completing extended sabbaticals with RDS (e.g. Schoemaker) whose subsequent work has built upon, and in some cases promulgated, their experiences at RDS. I propose that this influence, while expanding the use of scenario planning in the field of practice, has constrained the development of it as an academic discipline, resulting in the theory of scenario planning having developed comparatively little over the intervening twenty years, as both its ontological and epistemological origins, assumptions and representations have remained largely uncontested and under-examined.

It is often said that scenario planning has received only a limited amount of critical academic attention (Cairns, Wright, Bradfield, van der Heijden & Burt, 2004; Chermack, 2003; Goodwin & Wright, 2001; Hodgkinson & Wright, 2002 & Schoemaker, 1995). However, considering this realization has been made, it is perhaps surprising that of these only Schoemaker (1995) then goes on to attempt to bridge what he identifies as, the theory and practice divide. Burt and van der Heijden (2003 p.1014) characterise the current literature around scenario planning in four ways:

- anecdotal evidence of successful scenario planning exercises;
- some insights into scenario planning methodology;
- scenario planning as a method of improving strategic thinking or alignment of management thinking;
- broad societal scenarios.

It is instructive to see that of these four categories, only one seeks to gain insight into the deeper underlying issues that conceptually influence scenario planning. An alternative and broader categorisation I have developed focuses on the intended audience of the articles, as this helps to illustrate my argument that scenario planning authors have sought proliferation of the approach to the detriment of development of theory. These categories are based primarily on the journal in which the publication appeared (or book publisher), the level of critical analysis and degree of reflection on the part of the author(s):

- those aimed principally at a practitioner audience (e.g. Burt & van der Heijden, 2003; Cairns, Wright, Bradfield, van der Heijden & Burt, 2004; Fahey, 2003; Godet & Roubelat, 1996; Harries, 2003; Kennedy, Perrottet & Thomas, 2003; Leemhuis, 1985; Mason & Herman, 2003; Millett, 2003; Ratcliffe, 2000; Schoemaker & van der Heijden, 1992; van der Heijden, 1996; 2004; Wack, 1985a, 1985b);
- those aimed principally at a practitioner and academic audience (e.g. Chermack, 2003; Courtney, 2003; Hannabuss, 2001; Miller & Waller, 2003; Morgan & Hunt, 2002; Ogilvy, 2002; Roubelat, 2000; Schoemaker, 1993; 1995; van der Heijden, Bradfield, Burt, Cairns & Wright, 2002) and;
- those aimed principally at an academic audience (e.g. Bernstein, Lebow, Stein & Weber, 2000; Chermack & van der Merwe, 2003; Goodwin & Wright, 2001; Hodgkinson & Wright, 2002; List, 2004; MacKay & McKiernan, 2004; Nathan, 2004).

Of these, academic authors have tended to serve the practitioner audience and hence their own lucrative consulting aspirations better, in description, if not in critical analysis and radical reflection (Cunliffe, 2003) than the academic audience. It is instructive to note that Schoemaker's (1995) study of the theory and practice of scenario planning appeared in *Sloan Management Review*, following the tradition established by Wack in publishing in journals with an avowedly practitioner bias, albeit a thoughtful one. One of the calls this present paper makes is for scholars in the field to address future articles at principally an academic audience, through targeting their work at high-ranking journals, in order to stimulate reflective debate, develop the field and subsequently provide the practitioner audience with a more rigorously reviewed offering.

This tendency has had at least two affects. Firstly; scenario planning has not gained the status within the academic community afforded to disciplines such as 'sensemaking', which has a long and noble tradition of scholarly research and rigorous inquiry, meaning there is an absence of critical analysis from which to draw theory. And secondly, practitioners have had to adopt scenario planning methodologies and practices that have not been subject to the type of for example, in-depth case study (Johnson, Melin & Whittington, 2003) or ethnographic research that would produce reflective, context-rich, history sensitive (Knights & Mueller, 2004; Nathan, 2004) descriptions of scenarios-in-practice, providing managers with an additional lens with which to view their efficacy. Most studies tend to be unreflective accounts (Knights, 1992) of scenario planning interventions where the academic authors also acted as consultants. This suggests practitioners have been ill-served by the academic community, who have largely failed in developing a deeper understanding of the potential effects of a scenario planning intervention at organizational, process and individual levels (Chermack, 2003).

The purpose of this paper is to address some of the issues outlined above. This is not to suggest that this is the only paper on scenarios that adopts a critical stance seeking to contribute to the development of theory, (see for example: Bernstein, Lebow, Stein & Weber, 2000; Chermack & van der Merwe, 2003; List, 2004; & Nathan, 2004) rather, it endeavours to add to these voices. Therefore, the contribution this paper makes is to challenge and extend knowledge surrounding scenario planning not simply to rewrite it (Whetten, 1989). The ontological and epistemological assumptions of scenario planning are explored, with their resulting inconsistencies highlighted and analysed with reference to their impact on the development of theory and praxis. Following Pozzebon (2004) and Gioia, (2003) ontology is seen as the relationships between a researcher and the nature of the given construct of social phenomenon, and epistemology as how we gain insight into the phenomenon. This is achieved through taking some of the most common assumptions of the scenario planning literature and critically examining their claims and properties. Assumptions provide an uncontested given, a constructed reality whose very construction has been forgotten or lost, this reality exerts influence over what is noticed and labelled significant, and what is ignored (Weick, 2004 p.657).

## **Scenario planning – Royal Dutch Shell**

Scenario planning's history can be traced back to its use by the US Air Force during the Second World War in war games (Morgan & Hunt, 2002; van der Heijden, 1996). In the civil domain, the RAND corporation propagated its use, which was subsequently developed by the Hudson Institute set up by Herman Khan after he resigned from RAND (van der Heijden, 1996). Its use by RDS in the 1970s arose from a growing dissatisfaction with more deterministic approaches to long-term planning, which tended to rely upon single-point forecasts and on the non-explicit assumption that the future will be much like today - only a little better (Wack, 1985a; 1985b). Wack (1985a; 1985b) explains how scenarios were used within RDS to explore potential futures that were not merely an extrapolation of the past, which may be a highly untrustworthy guide, (Schoemaker, 1993) but incorporated the inherent uncertainty, unpredictability and ambiguity of the future into this mix. This resulted in it having considered and rehearsed its response to the 1973 oil crisis and oil price collapse of 1981 before these events happened. The RDS experience suggested that although the future cannot be accurately predicted, neither should it be ignored (Bernstein, Lebow, Stein & Weber, 2000) as it is

still to be created (Godet & Roubelat, 1996) and that thinking through in advance what plausible futures may hold for the organization is a useful and productive activity for individuals to engage in. Ratcliffe (2000) observes one dilemma facing managers is that all knowledge is about the past, whereas decisions are realised in the future. The scenario planning process results in scenarios depicting multiple alternative frames of the future (van der Heijden *et al.*, 2002). These scenarios are “...*focused descriptions of fundamentally different futures presented in coherent script-like or narrative fashion*” (italics in original) (Schoemaker, 1993 p.195); with each scenario “...a coherent story about the business environment...” (Leemhuis, 1985 p.30).

The influence of the RDS experience on the academic study of scenario planning has been adequately acknowledged, but its impact on how the field has developed has not been comprehensively analysed. As Whetten (1989 p.493) notes, theorists “...need to learn something new about the theory itself as a result of working with it under different conditions...”, thereby developing and improving theory, not merely reaffirming its utility. The unreflective and uncritical applications of scenario planning described in most accounts have not thrown up new insights into theory. This paper examines the theoretical underpinning of scenario planning chiefly through the work of two of its key exponents, who have in different ways, combined an academic career with practical experience of scenario planning with Royal Dutch Shell. Paul J. H. Schoemaker spent an extended sabbatical with the scenario planning group at RDS, and is now Adjunct Professor of Marketing and Research Director at The Wharton School, as well as Chairman and CEO of Decision Strategies International Inc. Kees van der Heijden was head of the Business Environment Division in Group Planning at Royal Dutch Shell prior to his move into academia where he is now Emeritus Professor at University of Strathclyde and has published widely with colleagues from Strathclyde and Durham University Business School. He is also director of the Centre of Scenario Planning and Future Studies, University of Strathclyde Graduate School of Business.

In critiquing this literature I acknowledge that I begin from a different epistemological position; interpretivism, than the authors I criticize. Whilst we may share the same ontological perspective of scenarios - I suspect this is what attracts us to them in the first place - we hold alternative epistemological stances. Hughes and Sharrock (1990 p.5) note that epistemological issues are frequently regarded first in an act of enquiry, with research approaches and techniques developed as implementations and demonstrations of these philosophical preconceptions. Criticisms of social science results and the methods which generate them are made sound by paying attention to the ontological and epistemological conceptions underlying them (Hughes & Sharrock, 1990; Tsoukas, 1989). It would be unreflective of me not to acknowledge my differing epistemological position in this paper.

Van der Heijden, *et al.* (2002 pp.224-227) offer the following six stage checklist as “...a guide to conducting an effective and purposeful scenario project”. Schoemaker’s (1993 p.197) is conceptually similar:

Stage 1: Structuring the scenario process

- *Identify gaps in organizational knowledge.*
- *Create a facilitation team.*
- *Decide on the duration of the scenario project.*

Stage 2: Exploring the scenario context

- *Conduct interviews with the team members.*
- *Collate and analyse the results of the interview process.*
- *Set the agenda.*
- *Invite and ‘remarkable people’; those who can help the team challenge conventional approaches and attitudes.*

Stage 3: Developing the scenarios

- *Identify the driving forces through structures thinking, test the outcomes, and handle complexity.*
- *Impact and uncertainty.*
- *Scoping the scenarios.*
- *Fleshing out the storylines.* Aim to produce a short ‘history of the future’. Project the team to the end states; each group has to develop the scenario story explaining how that end state was reached.

Stage 4: Stakeholder analysis

- *Test your understanding of the business problem with stakeholders. asking:*

**Figure 1.** Van der Heijden *et al.*'s (2002 pp. 224-227) Six stage scenario planning process (italics in original)

These stages are instructive as they reveal the ontological and epistemological assumptions and inconsistencies in approach that are present in much of the descriptions of scenario planning interventions. An analysis of the six stages, as representations of multiple elements of theory, (Whetten, 1989) is offered that draws out these points.

### **Structuring the scenario process**

This is commonly understood as the customized strategic issue, question or problem felt to have a critical impact on the organization and its business (Schoemaker, 1993 p.197; van der Heijden, *et al.*, 2002 p.192 & p.195) around which scenarios are built. This is characterized as a key gap in organizational knowledge. This stage demonstrates the first influence of the Royal Dutch Shell experience. RDS operates within an atypical business environment, where a small number of key variables such as oil reserves and price have a disproportionate effect on the dynamics of the business, and these variables are largely outside of the organization's immediate areas of control and influence. For RDS to construct scenarios around the single issue of the price of oil made sense as this was the key determinant in their business at that time. However, most organisations conduct their business in a more complex environment, where multiple variables interact in confusing and unpredictable ways. In addition, service-based organizations in particular, continually interact with their environment; their interpretations shape the environment more than the environment shapes them (Clark, 2004; Nathan, 2004). For these organizations, identifying the question, issue or problem they want to understand will be more complex and difficult. The ontological assumptions of the RDS scenarios were that the future would be predominantly affected by one of a small number of variables that were independent of it (Easterby-Smith, Thorpe & Lowe, 2002). Therefore, epistemologically it follows that an hypothesis, or in their language, an issue or question needs to be identified that then guides the scenario building process. The selection of the issue is all-important, it influences where the scenario planner will and will not look for data and information, and influences what form the responses to that issue or question will take. This decision of what to look at and for is also a decision of what not to look at and for. An alternative ontological position would begin the process from a different position. Adopting a social constructionist standpoint would firstly see the scenario planners acknowledging that by their behaviors and actions they will influence whatever futures are created. The epistemological guidance for the social constructionist scenario planner would be to begin with the desire to gather and construct rich data from which meaning can be induced (Easterby-Smith, *et al.*, 2002).

### **Exploring the scenario context**

The verb *explore* used in this circumstance is not neutral; its use suggests that the scenario context exists independently of the explorer(s), locating their role as being to enter this domain in order to understand its characteristics, much like an explorer when entering an alien land. More accurately the verb *create* should be used. This suggests the actions of the team constructing the scenarios involve them in acts that result in the creation of the scenario context. The scenario context does not exist independently of the scenario team to be explored, but is created through its collective acts, as such the scenario context is a social construction. By using the verb *explore* instead of *create* van der Heijden, *et al.* (2002) are distancing the individuals within the organization and the consultants from outside of the organization from the results they co-produce. Van der Heijden, *et al.* (2002 pp.195-198) advise that in-depth semi-structured interviews be used with key members of the organization, which are then analysed to identify recurring concepts - conflicting opinions are disregarded - therefore, frequency is sought, rather than diversity and richness. The Royal Dutch Shell experience drew attention to the need for a wider perspective to be integrated into the scenario planning process (van der Heijden, 1996) van der Heijden, *et al.* (2002 p.113) advocate the use of *remarkable people* "...observers who understand how the world works...", to bring 'out of the box' thinking into the intervention. These *remarkable people* are said to most likely be professional observers and could be academics, commercial researchers, writers, artists, consultants or perceptive business people (van der Heijden, 1996, Cairns, *et al.*, 2004). Whilst it may be valuable to integrate external perspectives into creating the scenario context, to afford these people the status of *remarkable* seems an exaggeration. What degree of understanding of the world do they hold? We all understand the world from our own perspective and on our own terms through our own ongoing sensemaking acts. Have these *remarkable people* developed a level of understanding about the world that is absolute, and therefore are not in state of *understanding* but have *understood*? I am sure this is not the intention, but the label *remarkable* and the claim that they understand how the world works are examples of conceptual statements that have been allowed to become part of the vocabulary surrounding scenario planning, and have not been critically examined and challenged.

### Developing the scenarios

This stage results in the creation of the scenarios as narratives. It involves identifying the driving forces, their degree of uncertainty and potential impact on the organization, the capture of the essence of the scenario end state, and a fleshing out of the storylines of the narratives (van der Heijden, *et al.*, 2002 pp.225-227). The driving forces (Schoemaker, 1993) are drawn out of the scenario planners by the facilitation team and bunched together with the aim of producing "...a set of clusters that are internally related and separate from any other cluster, although some driving forces may sit comfortably in more than one cluster" (van der Heijden, 2002 p.205). The next step is to identify the two general areas that are deemed to have the highest level of uncertainty (Schoemaker, 1993) and potentially the highest impact on the issue or question around which the scenarios are being constructed. A two-dimensional axis is produced, with the two areas of uncertainty as the axes, where the scenario planners are asked to place the cluster headings depending on their view of uncertainty and impact (van der Heijden, 2002 p.206). These acts are clearly subjective with the participants making sense of the cluster and allocating a position upon the grid based on their own understanding and sensemaking, which is informed by the discussions that take place at this stage. What form these discussions take and what role the facilitators adopt in this is not elaborated upon. Throughout this stage the role of the facilitators is presented as neutral and value-free. Again, legitimacy appears to be conferred based on frequency - if a high proportion of participants believe a cluster is very uncertain and has a high potential impact, it will be placed in the appropriate quadrant in the appropriate position, and vice versa - it is not clear how dissenting voices are listened to, so the output of this will be a 'majority view', with diversity the price. The scenario planners are then advised to "...capture the essence...", (van der Heijden, *et al.*, 2002 p.209) a positivist perspective of what makes a thing what it is and the necessary relations that comprise it, (Hughes & Sharrock, 1990 p.92) of each scenario taken to its plausible extreme. Constructionism advances an alternative view that worlds have no 'essence' to be discovered as they are not given, but constantly made and remade (Czarniawska, 2001 p.254). To flesh out the scenarios the planning team project themselves to the end year of the scenarios and take on the role of "...future historians..." (van der Heijden, *et al.*, 2002

p.213) then develop the story of how they came to arrive at this endstate. Whilst the scenarios are acknowledged as stories with a storyline, the activity is not considered "...mere storytelling..." as they "...must have clearly stated implications for the organization" (van der Heijden, 2002 p.214). The rationalist assumption that the organization and its environment are separate and independent of each other is represented in van der Heijden, *et al.*'s assertion that "...the scenarios themselves should never contain the organization as an actor. That is to say, the organization should not be shown to be having an input and impact on the story..." (2002 p.214).

### Stakeholder analysis

Van der Heijden, *et al.* (2002) suggest integrating this stage into the main scenario approach. This is designed to identify the organization's key stakeholders who have high interest in the identified issue or problem and significant power to influence its realization (Schoemaker, 1993). Eden and Ackermann's (1998 pp.121-122) power/interest grid seeks to help actors categorize their stakeholders in relation to strategy making with the purpose of identifying and implementing different stakeholder management routines depending on the level of power and interest assigned. The scenario planners themselves are the ones who consider the relative degree of interest and power of the stakeholder. As it is acknowledged that stakeholder analysis is always time and context-dependent - as is all scenario related analysis - van der Heijden, *et al.* advocate the use of a matrix, similar to Eden and Ackermann's, the completion of which "...helps us to separate reality from emotion..." (2002 p.217).

### Systems check

Van der Heijden, *et al.* (2002 p.219) advocate the use of systems thinking by the scenario planners at any time during the storytelling phase of the process, in order to identify underlying causal relationships driving the stories as they are crafted together. This activity is said to challenge the internal consistency of the storylines. They recommend that, where possible, an influence diagram is created and turned into a quantitative model (Schoemaker, 1993) as this is claimed to enrich the storylines and give the team the confidence that their stories "...cannot be faulted on internal consistency" (2002 p.220). Several assumptions underpin this reasoning. Firstly; this places internal consistency as the ultimate criterion of a scenario story. It is not made clear why this should be the decisive factor in judging the value of scenarios. This presupposes that the knowledge we have collectively created in the present is sufficient to be able to construct multiple plausible future worlds (scenarios) that not only contain the key driving forces, with their relative uncertainty and importance to the issue or problem originally identified, and to construct an appropriate narrative that communicates all of this in an effective and accessible manner - but also, that this storyline contains no internal inconsistencies. If an internal inconsistency is identified - presumably what constitutes an internal inconsistency is socially constructed and agreed between the scenario planner and the consultants - that aspect is removed from the scenario thus changing the story it tells (Schoemaker, 1993). This is problematic as it seems to represent an inconsistency with the ontology of scenarios. Scenario planning arose partly as result of dissatisfaction with strategic planning techniques that failed to identify and consider discontinuous change in the business environment, precisely the type of change that if included in any narrative would have rendered such a story inconsistent. Therefore, if scenarios must be internally consistent, wouldn't they also run the risk of dismissing just those forces that result in discontinuous change which would be most useful to consider, as their inclusion cannot be integrated into the underlying causal relationships that have been created (MacKay & McKiernan, 2004)? Internally inconsistent scenario narratives could be faulted for their lack of consistency, but may be able to tell a richer more thought-provoking story. Ultimately, the stories scenarios tell need to be plausible, but that doesn't necessarily mean they have to be internally consistent in the sense suggested by Schoemaker and van der Heijden. Their value lies in their usefulness to the organization, not in their internal consistency; the two are not synonymous.

### Impacting organizational thinking and acting

Once the scenarios have been developed the task begins of communicating them to the audience for whom they have been developed; the key decision-makers (van der Heijden, *et al.*, 2002). The purpose of this is twofold: to influence the eventual decisions taken, ensuring they are robust against

each scenario, or at least if they are not that the risks are known; (Goodwin & Wright, 2001) and, to stimulate strategic thinking and hence adaptive organizational learning skills through the *strategic conversation* (Chesley & Wenger, 1999; van der Heijden, *et al.*, 2002). A strategic conversation is described as an 'art' and is "...the sum-total of all exchanges, formal and informal, taking place between members of the organisation concerning aspects of the position of the organisation in its external environment, and how this can be changed from the inside out" (van der Heijden, 2004 p.151). It is advised this conversation be inductive, adaptive, fluid and has space for alternative views as these are vital if ongoing evolutionary learning is to be achieved (van der Heijden, 2004). There has been little research into how these conversations materialise in organizations in practice. Through speaking we reveal something of our thoughts and feelings; (Ten Bos & Rhodes, 2003) this being the case, van der Heijden provides no insight into how, for example; power relationships affect the conversation (Pozzebon, 2004), what voices remain unheard, when a conversation ceases to be strategic and becomes merely a conversation, and what form and function this conversation holds as an organization change agent. Ford and Ford (1995) identify five categories of performative speech acts seen as important in producing intentional change in organizations; these are: assertives, directives, commissives, expressives and declarations. Further research into the practice of strategic conversation, perhaps using Ford and Ford's categories, would be welcomed.

Nathan (2004 p.196) identifies that organizations often interpret past successes as evidence of their competence and effectiveness of their methods, and consequently lock into these behaviours, and seek to generalize on their appropriateness for others. The scenario planning approach is said to have arisen based on the assumption that past experiences may be a *misleading* guide to the future (Schoemaker, 1993, emphasis added). However, what the above analysis demonstrates is that the most prolific scholars and consultants in scenario planning over the last 20 years are guilty of the same thinking that saw forecasting as the predominant strategic planning approach in the '60s and '70s. Namely, that the past success of the Royal Dutch Shell scenario planning methodology has led through a reification process to a belief in its universal application, oversimplification of approach, wishful normativism by its advocates (Maruyama, 2004) and unchallengeable hegemony (Kilduff & Mehra, 1997). RDS-influenced scholars have failed to consider the contextual limits of their propositions, and have tended to consider the social phenomenon of scenario planning only in the familiar surroundings of their shared experience (Whetten, 1989). This has led to such unquestioned presumptions as the objectification of the scenario planning team as somehow independent of the consultants advising them (van der Heijden, 1996). Whilst the claim is made of having analysed a number of failed scenario projects - what constitutes a failed project and what form its analysis took is not explained - much of their failure is attributed to poor facilitation and poor design, (van der Heijden, *et al.*, 2002) surely a key role of the consultants advising the organization? However, in one of the few articles to describe an unsuccessful scenario intervention the primary reason for its failure is assigned to the participants having adopted defensive avoidance strategies, (Hodgkinson & Wright, 2002 p.964) with little critical reflection by the authors of their own contribution as the project's consultants. The importance of researchers' self-reflexivity is, of course, not considered when objectivity is assumed. However, Cunliffe neatly summarises the relationship between social construction and reflexivity:

Social constructionists argue that we construct and make sense of social realities in various forms of discourse; conversation, writing, and reading. Radically reflexive researchers recognize their own place in this process, suggesting we *construct intersubjectively* the very *objective realities* we think we are studying: we are inventors not representers of realities (Clifford, 1986). Constructionist research explores how meaning is created between research participants.

(Cunliffe, 2003 p.988)

## Discussion

The previous section contained an analysis and critique of the scenario planning process as represented by the work of van der Heijden, Schoemaker and their colleagues, highlighting some of

its philosophical inconsistencies. This section will look more generally at the philosophy of scenario planning and advance an alternative theoretical lens (Whetten, 1989) based on social constructionism (Czarniawska, 2001). List (2004 p.24) identifies that most scenario planning approaches implicitly adopt a 'fan model' perspective, where multiple potential futures are ontologically acceptable whilst a single shared present and past are presumed. This denies the situatedness and constructive nature of the present and past, which are not fixed and immobile but subject to constant re-interpretation as we understand and reflect more. This re-perceiving of the past and present inevitably influences how we perceive the future which itself is not fixed (Nathan, 2004). Whilst Hannabuss (2001) sees scenarios as drawing on ethnographic research, Chermack and van der Merwe (2003 p.446) see social construction influencing scenario planning in four ways: in the individual construction of knowledge; the social influences on individual constructions; the situatedness and contextual requirements of knowledge construction, and; the social construction of reality. The recognition of the social constructive nature of scenario planning challenges Wack's view quoted by van der Heijden (1996 p.196) that "...good scenarios just emerge...", which denies the deep relationship between agency and structure (Pozzebon, 2004). Nothing 'just emerges' in our socially constructed worlds, to suggest this disavows the agency of actors and misleads managers, who may feel that if good scenarios are not 'just emerging' they are doing something wrong. The creation of scenarios involves actors - both scenario planners and consultants - engaging in multiple acts of creation and interpretation of meaning (Ng & Cock, 2002; Ogilvy, 2002). Similarly, encountering scenarios through reading or listening to presentations sees individuals interpreting their content subjectively in an effort to make them meaningful and thereby relevant and useful.

Scenario planning is located ontologically and epistemologically as an alternative strategy approach to rationalist techniques, such as forecasting (Ogilvy, 2002; van der Heijden, 1996; van der Heijden *et al.*, 2002). Although as the above analysis shows, positivism remains present in much of the unspoken assumptions evident in the most widely known examples. Consequently, some of its most prolific advocates appear to be suffering from epistemic uncertainty (Habermas *cited in* Schoemaker, 1993) and seek to deny scenario planning's social and constructive natures, (Czarniawska, 2001) and go so far as to apologise for these interpretive properties. Cairns *et al.*, (2004 p.233) demonstrate this when they identify the "...central problem in scenario development, then, is the fact that aside from a limited set of tools, the task is essentially a creative one and the process is 'more art than science'". It is perplexing that in a world increasingly described as complex and unpredictable the creative element of an approach to strategy is described as its central problem. In addition, this statement also contradicts an earlier call from the same authors for managers "...to embrace uncertainty, to think creatively yet systematically about possible future events" (van der Heijden, *et al.*, 2002 p.153). This epistemic inconsistency is not explained. When discussing scenario planning methodologies Cairns, *et al.* (2004 p.231) negatively contrast "...simple unstructured models based on intuition and reasoned judgment...", with "...highly sophisticated probabilistic algorithms and causal simulation models". It appears qualitative approaches suffer for relying on intuition and reasoned judgment, whilst quantitative techniques are afforded the status of high sophistication for excluding these. Goodwin and Wright (2001 p.13) advocate integrating multiattribute value modelling as meeting the self-identified need for a formal strategy evaluation process within planning. They (2001 p.14) propose a number of "...self evident advantages..." of employing this; a formal decision process allowing for the possibility of retaining a record of the decision model yielding a documented and defensible rationale for why a particular strategy was chosen. These 'self evident advantages' appear more targeted toward forming an organization's activities as calculable and recordable, thereby achieving a level of objectively perceived accountability, (Knights, 1992) than at developing strategic capabilities. Miller and Waller (2003 p.94) on the other hand suggest real option analysis as a quantitative approach for rendering a scenario planning approach to strategy more reckonable and controllable (Knights, 1992).

I don't feel the examples above can be seen as mere textual strategies (Leuenberger & Pinch, 2000) used by the authors to comply with the conventions of academic journals or academic/practitioner books. Writing is not an innocent practice; (Denzin & Lincoln, 2000) our research narratives are as

much about our lives as the lives of others (Cunliffe, Luhman & Boje, 2004). Van der Heijden (1996) and van der Heijden, *et al.*, (2002) identify that managers prefer consciously or unconsciously to operate in a positivistic mode and hence use and appreciate rationalistic language. This raises questions concerning the audience these authors are writing for; the academic, the practitioner, or both? Or perhaps it represents the authors adopting a relativist position that challenges positivist/social constructionist dichotomies, (Easterby-Smith, *et al.*, 2002) but if this is the case the authors do not make this clear. I recognise that one criticism that could be levelled at my work is that I have taken an avowedly social constructionist stance, which sees positivism as at the opposite end of the research continuum, and that such a position is a rough and oversimplified one (Morgan & Smircich, 1980; Pozzebon, 2004), however much like John Van Maanen, I do not see rationalism as interpretivism's evil twin (Van Maanen, 1998).

## Conclusion

In this paper I have critically analysed assumptions underpinning much of the scenario planning literature. This has been achieved by focusing on the work of two of main advocates; van der Heijden and Schoemaker, both of whom have combined an academic career with practical experience at Royal Dutch Shell. I have focused on the epistemological uncertainties and inconsistencies present in their work and argue that although they locate scenario planning as a reaction to more rationalist approaches to strategy that have been found to oversimplify environments and ignore ambiguity, the scenario planning approaches they proffer contain these same limitations. I offer as an alternative, a perspective of scenarios drawn from a social constructionist stance. This relocates scenario planning as a socially produced construct achieved through acts of multiple and competing interpretation and sensemaking.

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