# Towards a Technology of Foolishness
# Developing Scenarios through Serious Play

Working Paper 54

July 2004

**DR CLAUS JACOBS***
Research Fellow

**DR MATT STATLER***
Director of Research

*Imagination Lab Foundation - Rue Marterey 5 - 1005 Lausanne - Switzerland
Tel +41 21 321 55 44 - Fax +41 21 321 55 45 - www.imagilab.org

**CLAUS D. JACOBS & MATT STATLER**

# Toward a Technology of Foolishness –

## Developing Scenarios through Serious Play

**Abstract**

*Scenario planning has been advocated as a means for strategists to review and shift their mental models on strategic phenomena. While the process itself has traditionally involved the rational analysis of coherent narratives,there have been recent calls to consider scenario development approaches that involve more creativity and intuition. In response to this debate, we recall on March's distinction between the 'technology of reason' and the 'technology of foolishness,' and pursue his suggestion to conceive of play as an archetype of foolishness. We then consider recent organizational and strategy research that develops the concept of serious play, and we explore normative implications of this concept for scenario planning in practice. Finally, we present an empirical illustration of a strategy workshop involving serious play in a large European telecommunications service provider..*

*"Interesting people and interesting organizations construct complicated theories of themselves. In order to do this, they need to supplement a technology of reason with a technology of foolishness. Individuals and organizations need ways of doing things for which they have no good reason. Not always. Not usually. But sometimes." (March, 1979: p. 75).*

## Scenario Planning – A Technology of Reason?

Since its initial use in business by Royal Dutch Shell in the early 1970's (Wack, 1985a, b), scenario planning has become well-established in strategic management as a means for organizations to address the ambiguity and uncertainty that derive from contingencies in the environment (e.g. De Wit & Meyer, 2001; Fahay & Randall, 1998; Goodwin & Wright, 1998; Goodwin & Wright, 2001; Guth, 1985; Montgomery & Porter, 1991; van der Heijden, 1996; van der Heijden, Bradfield, Burt, Cairns, & Wright, 2002; Wright & Goodwin, 1999).

Scenario planning refers generically to the process of exploring reasonably possible avenues for the future by means of critically reviewing managers' mental models on strategic phenomena and thereby contributes to organizational learning and strategic renewal (e.g. De Geus, 1988; van der Heijden, 1996; van der Heijden et al., 2002).

Within scenario planning processes, the systematic uncertainty of the future is considered a structural feature of the business environment caused by contingencies in strategically relevant, environmental variables. While proponents of scenario planning reject the idea that the future can be predicted

with any certainty through probabilistic calculus, they posit that organizations with a better understanding of contingencies and causal relationships in the environment are more likely to thrive in the future (e.g. Goodwin et al., 2001; Ringland, 1998; Schoemaker & Gunther, 2002; van der Heijden, 1996).

In deference to the inherent unpredictability of the future, scenarios have been described as “focused descriptions of fundamentally different futures presented in coherent script-like or narrative fashion” (Schoemaker, 1993: 195). One central purpose of the scenario development process is to facilitate a critical review of the mental models implicit in the future narratives. The need for such critical review has been demonstrated for instance by Barr and Huff (1997), Barr, Stimpert and Huff (1992) or Hodgkinson (1997), who point out that strategists who fail to notice actual or potential changes in strategically relevant variables are subject to the consequences of strategic inertia. Thus, the optimal outcome of a scenario planning process would consist in the attainment of “the requisite variety in mental models necessary in order to anticipate the future and develop a strategically responsive organization” (Hodgkinson & Wright, 2002: p. 950).

In order to attain such variety, a prototypical process of scenario planning involves the identification of key strategic issue as well as a set of key environmental variables – to be traced throughout the process. Initial scenarios are subsequently checked for consistency and plausibility and then explored in more detail through an assessment of their impact on the organization and its environment. Based on these considerations, corresponding action and decision scenarios are developed and captured by writing up the narrative of each scenario that will then provide a detailed and rich description for each of

the explored scenarios and its contingencies (e.g. Goodwin et al., 2001; Hodgkinson et al., 2002; Schwartz, 1991).

In line with De Geus's (1988) claim that scenario planning should be considered an occasion for learning, van der Heijden et al. (2002) suggest that scenario development processes contribute to organizational learning to the extent that they enhance the organization's responsive adaptability. On this analysis, effective scenario development enhances individual, team and organizational perception and provides an occasion for strategists both to reflect on their underlying assumptions about the organization, and to develop a better understanding of the interplay of critical internal and external variables. At a process level, such potential outcomes require the establishment of a conversational space within which alternative and divergent views can be safely explored.

Despite such claims about enhanced organizational adaptability, it must be acknowledged that in practice scenario planning does not come without certain limitations. Recently, Hodgkinson and Wright (2002) compellingly identify, explore and analyze several psychosocial defense mechanisms – including open scepticism, withdrawal, disengagement, or hostile climate in a management team – that surfaced in an indicative process of scenario planning they examined. By critically reflecting on their role as process consultants in a particular scenario planning intervention, they highlight the relevance of preconscious or preflexive defensive routines that hinder learning and change in scenario development processes.

In view of such limitations, and in an effort further to develop critical process design characteristics, van der Heijden et al. (2002: p. 138-141) suggest that effective scenario planning involve group thinking processes that

explore the identity of the organization; blend introspection with outward-oriented analysis; and encourage the generation of new insights, critical reflections and surprises. Most importantly however, they suggest that rational analysis in scenario development processes should be complemented with intuition and creativity.

In this paper we seek to develop theory which both explains and guides this complementary relationship. First, we recall the distinction between the technology of reason and the technology of foolishness, and we suggest that the call for more intuition and creativity in scenario planning might be answered with a more thorough exploration of foolishness. Following March's suggestion that play is the archetype of foolishness, we consider two psychological theories of play in detail. Building from these theories, we consider organizational research focused on'serious play', and we explore the normative implications of this concept for the practice of scenario planning.

## Serious Play – A Technology of Foolishness

### *Differentiating technologies of scenario planning*

In an attempt to build theory about received, culturally embedded concepts of human intelligence, March (1979) argued that technologies of reason tend: to presuppose a *pre-existing purpose* for action; to insist on the *necessity of consistency* among actions; and to the *primacy of rationality*. Technologies of foolishness, he argued by contrast, tend: to presuppose an *emergent and transitional nature of purpose;* to allow for *inconsistency,* while encouraging ambiguity and fluidity of action; and finally to accept the *relaxation of functionally rational imperatives*. While March acknowledges that the

technology of reason has undoubtedly been very successful in strengthening human capabilities for effective social action, he also reminds us of its limitations. Indeed the exclusive attachment to purpose, consistency and rationality may be inappropriate in organizational situations that actually require reason's 'non-rational' cousins, including impulse, intuition and lived bodily experience.

**INSERT Table 1 about here**

Scenario planning has taken root in organizations based on its capacity to support and extend the consistent purpose of competitive advantage. And while the planning process may involve the identification of diverse and ambiguous future scenarios, this diversity is then reconciled in a set of 'coherent' narratives. These narratives are subdivided into a series of contingencies, which in turn are (frequently enough) subjected to elaborate risk analysis procedures. Thus we suggest that scenario planning tends both in its concept and its practice to privilege a technology of reason , in spite of its espoused interest in novelty.

More in-depth case studies like the one conducted by Hodgkinson and Wright (2002) would be required to determine whether, and if so, to what extent the consequences of technologies of reason might actually impede the development of new mental models. Instead, our initial claim here is that the conceptual basis as well as the practice of scenario planning might be fruitfully extended by a more thorough exploration of technologies of foolishness. In this regard, we are inspired in the following section to pursue March's further claim that *play* provides an archetype of foolishness that allows for a "deliberate,

temporary relaxation of rules in order to explore the possibilities of alternative rules" (1979: p.77).

*Play: Creating Meaning with Adaptive Potential*

As we begin to explore play as a technology of foolishness with relevance for scenario planning, we feel obliged to take note of those extensive and diverse literature streams adjacent to management and organization studies within which the relevance of play for human life has been well established. Indeed, psychologists have long recognized that play serves the primary development of cognitive skills such as the capacity to conduct logical operations (especially following Piaget & Inhelder, 1958)) as well as the capacity to understand meaning in specific contexts (Vygotsky & Cole, 1978). At another level of analysis, play has been shown to enhance the emotional sense of competence or fulfillment that may serve as a precondition for effective cognitive functioning (Erikson, 1963). Similarly, sociologists and anthropologists have identified the crucial importance of play for the development of the skills generally required to function in social communities (Mead, 2001), as well as for the development of particular social institutions (with regard to law, religion, government cf. Huizinga, 1950) and forms of cultural identity (Geertz, 1973).

Within these extensive streams of research, we believe that there are at least two lines of argument in particular that can contribute directly to our interest in play as a technology of foolishness that might extend scenario planning in its concept and practice.

First, we are drawn to the conceptualization of *play as the primary process through which meaning is created as such* (Winnicott, 1971). On this analysis,

the infant first attaches meaning to a 'transitional object' that marks an ambiguous area of experience within which the self is not fully differentiated from the environment. This so-called transitional object involves however not merely a material object as such (e.g., a source of food), but rather additionally it refers to a playful process of object relations through which the differentiation of inside and outside (or, phrased in terms of identification, self and other) is actually in the process of being accomplished. The transitional dynamic involved with this primary experience extends over time to involve a series of increasingly complex object relations that are retained throughout life "in the intense experiencing that belongs to the arts and to religion and to imaginative living, and to creative scientific work" (1971, p. 14). In this light, play refers precisely to those processes in which people handle an ambiguous lack of differentiation between that which is imagined and that which is perceived. And the importance for our considerations of such transitional play processes is that they involve the imaginative creation and discovery of meaning as such.

Secondly, we are drawn to an argument from the field of educational psychology that frames the outcomes of the ambiguous experience of play in terms of human adaptive potential (Sutton-Smith, 1997). According to this analysis, different rhetorics are employed whenever play is put forward as an object of study or as a possibility for action (e.g., the rhetorics of fate, power, identity and imagination). And yet on the other hand, within each of the various rhetorics of play, a degree of ambiguity arises both with respect to the purported function and outcome of the activity in principle, as well as with respect to the manifest experience of the activity in practice. And thus while the very act of identifying these various dimensions of ambiguity as such might well contribute to "more useful general scientific theorizing" (1997, p. 217) about play, at the

same time the irreducible ambiguity of play might be what defines it most essentially.

Indeed, in view of contemporary theories of biological adaptation, it appears that because play "contains so much nonsense, so much replication, and is so flexible…it is a prime domain for the actualization of whatever the brain contains. And for that matter, phrasing the claim in behavioral rather than neurological terms, "[play] is typically a primary place for the expression of anything that is humanly imaginable" (1997, p. 226). Thus play is identified as an "exemplar of cultural variability" that provides an arena within which new alternatives may legitimately be explored (1997, p. 230).

Whereas psychoanalytic theory defines play as an activity of creation and discovery in the ambiguous area of transitional experience, educational psychological theory suggests that this play activity may be understood to enhance and extend our capacity, both at the individual and the social level, to express and actualize that which we imagine, a capacity that may in turn have profound implications for organizational survival, adaptation, and growth.[1]

These two lines of argument appear to support the claim that play might provide a natural technology of foolishness in scenario planning. It should be noted however, that the conceptualization of play as a transitional process of meaning creation that begins in infancy but extends throughout human life casts scenario planning in a new and slightly different light. At a conceptual level, there is the analytic implication that scenario planning might plausibly be described as a form of play. In this respect, we note in passing that the playful character of this transitional experience has not been explored thoroughly by scenario planning research and practice.[2] Furthermore, the conceptualization

of play as an ambiguous frame within which adaptive variations are expressed suggests that if scenario development processes were more playful in practice, then they might serve more effectively to develop the knowledge and skills that extend the adaptive potential of strategists, and thus hopefully, the organization.

*Serious play: a concept with practical implications for scenario planning*

Organizational research provides additional support for this suggestion. For example, play has been associated not only with creativity (Amabile, 1996) and positive behavior motivation (Glynn, 1994), but additionally with personal identity and career choice (Ibarra, 2003) as well as with product development (Schrage, 2000). More relevant to the scenario planning literature isrecent research in which the concept of 'serious play' has been defined as: "a mode of activity that draws on the imagination, integrates cognitive, social and emotional dimensions of experience and intentionally brings the emergent benefits of play to bear on organizational challenges." (Roos, Victor, & Statler, 2004). These authors suggest that the concept of serious play can constrain strategy processes in such a way as to enable strategy content innovation.

More specifically, Roos et al. (2004) examine and experiment with two process constraints that seem to have been neglected so far by the scenario planning literature, namely: the mode and the medium of strategizing. The term 'mode' refers in this case primarily to the intentionality of a given action. Whereas traditional strategy processes rely on fact-based analyses to determine necessary strategic actions for the organization, seriously playful strategizing appears to involve a more open-ended exploration of emerging possibilities for the organization. Similarly with respect to the term 'medium', traditional strategy processes rely on two-dimensional graphs, spreadsheets

and written texts to communicate ideas. By contrast, seriously playful strategizing can additionally involve three-dimensional and other experientially-rich media that extend the expressive and creative capacity of the participants.

There are additional, indirect indications from the organizational literature that such 'seriously playful' process constraints might have relevant implications for the practice of scenario planning. For example, their enabling power has been further established by Worren et al.'s (2002) and Gardner's (1993) contributions, who emphasize the relevance of visual and tactile/kinaesthetic knowledge to complement propositional knowledge or intelligence. Similarly, whereas Doyle & Sims (2002) reference the use of three-dimensional objects in processes of conversations for change as *cognitive sculpting*, Barry (1994), explores analogically mediated inquiry as an extension of depth psychology and art therapy for organizations. Finally, Buergi, Jacobs & Roos (2004), explore the potential implications of using three-dimensional objects in a playful process of literally 'crafting' strategy.

We believe that this research provides both conceptual and empirical support for the consideration of serious play as a technology of foolishness through which scenario planning might become more creative and intuitive. Indeed, if serious play can constrain strategy processes in such a way as to enable innovation, then might it not serve a similar purpose in scenario planning processes, and thereby extend its capacity to change mental models? In response to this question, our contention is twofold: first, that *serious play* provides one way to extend the conceptual basis of scenario planning to include technologies of foolishness, and second, that this extended conceptualization

has normative implications for how scenario planning might be practiced more effectively.

In order to illustrate how the practice of scenario development might be guided by the concept of serious play, we discuss an empirical case involving the strategy team of a large, European telecommunications service provider. [1]

**The TelCo Strategy Team Playing Seriously**

Started up in 1995, TelCo was a small wireless company in a European national market. In contrast to its competitors, it recognized the broad consumer potential of wireless technology and differentiated itself in the marketplace on the basis of a strong brand, which emphasized a young, active lifestyle. This strategic position enabled the company to record significant growth through the late 1990's. By early 2000 it was acquired by a state-owned competitor who hoped that the TelCo brand spirit would cross-fertilize its own cellphone as well as fixed phone businesses.

TelCo's corporate strategy team had played a significant role in the development and propagation of the brand values that had driven the company's growth. But as the market downturn continued and the post-merger integration process unfolded, people in the team began to voice discomfort and confusion about what actually needed to be done. As one member of the strategy team argued "These days there's huge confusion about the brand, the company, the essence, the vision, etc. It's all become so complicated, and I really feel we need just one way to say it all." More traditional forms of strategic management such as market analyses, risk evaluations, financial projections, etc. did not lead to a strategy that was appropriate to the turbulence and

changes within and around the organization. A senior team member expressed profound confusion when she stated: “Now, as strategists, what can we do?”

In these circumstances, the TelCo strategy team decided to explore alternative routes for strategy-making and scenario development. In February 2001 the team arranged for a two-day intervention that was designed to explore TelCo’s identity, its environment and its strategic challenges through a process of serious play.

Guided explicitly by the serious play concept, this scenario intervention involved a facilitated play process using 3,000+ toy construction materials[3] of a variety of colors, shapes and sizes. Process steps included “warm-up” exercises to familiarize participants with the materials and to develop participants’ abilities to describe their constructions using metaphors and narratives. Then, participants were asked individually to construct a model of their organization, including e.g., its essential characteristics, key functions, structures, central attributes, etc. Following this individual exercise, participants were then invited to present their constructions to other participants. Similarities and differences among the various models were discussed, and subsequently, participants engaged collectively in the construction of a shared model of the organization. As this model took shape, participants were asked similarly to construct key agents in the environment, focusing additionally on the relationships between these agents and the organization’s identity. Once a single model of the organization and its landscape had been collectively constructed and agreed upon, different ‘what-if?’ scenarios were literally played out by manipulating various features of the construction, for instance, by taking a key competitor off the table, relocating the brand, or changing the size of a client model, etc.

The three-dimensional shared model constructed by the TelCo strategists spanned over two meters across a boardroom table, and additional elements were placed on shelves along the wall of the room. The group had identified the overall metaphor of ‘a flotilla of ships’ to describe the array of different business units scattered not just through their original, national market, but now around the world. Up at the head of the flotilla, the group had placed a construction of the TelCo brand values as a demonstration of their importance as a guiding force for the company.

One particular team member had been with the company from the beginning, and he had been one of the strongest supporters of the TelCo values all along. Within the process of playing out several 'what if' scenarios, he was standing back from the table, surveying the constructions built by the team. He then moved forward, grabbed the brand values, broke the connections between that model and the other models, picked it up from the head of the flotilla, walked back to the other end of the table and put it down behind all the other ‘ships’. He announced to the group that he thought that in fact the TelCo values did not currently provide the team or the company with any strategic, guiding light. Instead, he claimed that the values were more accurately dragging the company down, that they were a thing of the past that needed to be recognized as such, and that if they were to play a role in the future of the company, they needed to be refreshed significantly in light of the company’s new situation.

The team then engaged in a lively debate about whether this rearrangement of the brand values in relation to the identity of the organization was appropriate. As this discussion unfolded, it was generally acknowledged that while the brand in and of itself remained a strong cultural feature, in the post-merger situation its relative value and position had to be reviewed –

especially in view of its new position in the three-dimensional model of the organization's identity. As one participant recalled: "Our holy grail was actually a holy anchor that held us back from moving forward."

## Discussion and Implications

We set out to look at how scenario planning is currently understood within the field of practice and by organizational researchers as a way to reveal and shift strategists' mental models. In response to a call for more creative and intuitive methods of scenario development (van der Heijden et al, 2002), we introduced March's (1979) distinction between the technology of reason and the technology of foolishness, and explored in detail the claim that play is an archetype of foolishness. We found that play can be understood to involve both the imaginative creation of meaning (Winnicott, 1971) and the development of human adaptive potential (Sutton-Smith, 1997). Furthermore, we found that the concept of *serious play* has been compellingly presented as a framework for organizational activities that draw on the imagination, engage multiple dimensions of experience, and involve a playful mode of intentional action (Roos et al., 2004) We now turn to interpret the case illustration in light of these theoretical findings as a way to identify what we think the most important normative implications of serious play are for scenario planning practice.

During the intervention process, participants seemed to be experiencing ambiguity of various kinds. At a macro-level, there were competing and contradictory understandings of the relationship between TelCo and the parent company as the post-merger situation unfolded. At a micro-level, to the extent

that they were struggling to develop a strategy that could accommodate the macro-level turbulence, the team was struggling to define its own role in the company. Thus in view of the psychological conceptualisation of the nature of play, we could say that the TelCo strategy team was playing in a transitional area of experience in which the inside and the outside remained ambiguously undifferentiated. Was the external environment to blame for the lack of a coherent strategy at TelCo? Was the parent company part of the external environment? Was the team itself to blame for the lack of a coherent strategy? How could the team build on its own experience in the past and create a meaningful strategy for the future? The team struggled to find answers to these questions – and yet to the extent that they engaged in a process that involved the imaginative creation of meaning, multiple dimensions of experience, and a playful mode of intentionality, we can say that they were 'playing seriously'. And furthermore, we can say that these process elements correspond directly to the characteristics of the technology of foolishness. Table 2 provides an overview of how the process elements of serious play at TelCo exemplify aspects of a technology of foolishness in practice.

*Imaginative Creation of Meaning*

Having collectively constructed the organization's identity and its landscape, participants engaged in a process of imagining and playing out emerging events and their consequences. The post-merger challenges to integrate old and new business units were expressed metaphorically as a flotilla of ships on the table. By playfully constructing the organization as a group of ships in difficult waters guided by the flag of brand values, participants seemed to reflect on the relevance of the brand. And when the brand was physically

removed from the front of the sculpture to the end, the group collectively acknowledged that the brand and its strength needed significant renewal in order to sustain organizational performance after the acquisition. The linguistically and symbolically mediated play process thus seemed to enable the team critically to review and shift their mental models of the organization. Based on their collectively re-imagined model of the organization's identity, participants seemed to develop a more subtle and shared understanding of the changing role of the brand values in the new post-merger era.

*Multidimensional Experience*

Insofar as the intervention process involved alternative media (i.e., the three-dimensional toy construction materials), it seemed to provide participants with the opportunity to draw on their tactile and kinesthetic knowledge and bring these dimensions of experience to bear on organizational challenges. By literally constructing the organization's identity in a three-dimensional model that spread over the entire conference table, participants were invited to experience future scenarios in a way that was quite different from their traditional strategic conversations. The relative size of ships, the relative distance between them, the overall size of the model, the relation position of the brand: all these tactile objectifications of strategic concepts functioned as extra-verbal devices that extended the expressive repertoire of that management team. In turn, the richness of the visual images, together with their metaphoric significance, appeared to enable new forms of conversation and interaction among individual team members.

Indeed the two main narratives employed by participants to express their organization's identity were that of a "flotilla of ships" and a "flag of the brand."

Whereas the former was designed to represent integrated yet dependent entities by means of different boats that were well connected and oriented in the same direction, the latter provided a point of overall orientation for the organizational strategy content. Thus it was the physical shift of the brand's relative position that seemed to have effectively shattered the consistency of the team's traditional brand narratives. In the transitional space of play, the team seemed to have been able to confront an ambiguous lack of differentiation, and entertain a new variety of possible, alternative meanings for the existing brand values. Based on this experience, the team subsequently saw the brand not as the guiding light towards which their flotilla should orient, but instead as an anchor that literally lay behind the flotilla and threatened to drag the company down. We suggest that this potential shift of mental models might have been enabled through the use of a physical medium that involved multiple dimensions of experience.

*A Playful Mode of Intentional Action*

When the team member grabbed the three-dimensional model of the brand values and moved from the front of the flotilla to the back, he appeared to be acting on an impulse. Indeed, his action appeared to come as a complete surprise to the rest of the participants. While their discussions of the implications of this new mental model became increasingly rational and coherent as they unfolded, we suggest that the individual's action might not have been based in the first instance on a rational analysis, but instead on an intuition that something did not feel right about the model as it was built on the boardroom table. The question of how to differentiate absolutely between instrumental rationality and other sources of meaning creation (such as

intuition) remains out of the scope of this paper. We can however suggest on the basis of the theory presented above that insofar as play activities provide a space within which adaptive variation can emerge, the team seemed (in complement to a process driven primarily by the technology of reason) to explore alternative possible meanings for the company's brand values. In this sense, a mode of intentionality that does not privilege necessary conclusions but instead remains playfully open to emergent possibilities could have contributed to the effectiveness of this scenario planning intervention.

These three interpretative findings about how the concept of serious play might guide the practice of scenario planning appear to exemplify what March referred to as the technology of foolishness (1979). For instance, the pre-existing, taken-for-granted role and value of the brand was reconsidered, and as its spatial position was shifted, a novel and distinct sense of its purpose emerged. Similarly, the relatively fluid, multi-dimensional experience of collectively constructing a physical model of the organization appeared to have diminished the need for consistency. And finally, as underscored above, the playful mode of intentionality appeared to have relaxed the imperative that all organizational discourse be functionally rational. Together, these elements of the technology of foolishness appear to have brought more creativity and intuition to the practice of scenario planning.

*Implications for Scenario Planning Research*

We set out to respond to a recent call for more creative, intuitive approaches to scenario planning (van der Heijden, et al., 2002). Specifically, these authors signal a need for processes that allow for new insights to emerge

through an exploration of the organization's identity that draws on both inward and outward analysis. In view of the case illustration, we suggest that the concept of serious play might contribute to the development of such processes. At the same time, we present our findings as preliminary indications of avenues for future research as follows.

In the case illustration above, the serious play concept guided a process in which managers not only reflected on and discussed their organization's identity, but additionally, built a three-dimensional model of it and used it to play through a variety of scenarios. In this manner, different mental models about the organization were externalized in such a way as to render them visible, tangible and subject to playful deconstruction – or re-construction for that matter.

Since van der Heijden et al. (2002) have already recognized that rendering visible and synchronizing such differences are necessary steps toward effective organizational learning, we suggest that more research is necessary to determine the importance of the medium of such expressions as well as the mode of intentionality that produces them. More specifically, it would seem that different media might lead to the emergence of different forms of novelty or surprise. Indeed the use of physical objects and rich, visual imagery appeared in the case illustration to enable participants to read a scenario while writing it (e.g. Weick, 1990), thereby triggering surprises for individuals as well as for the group. Future research might interestingly compare and contrast the impacts of a variety of different media using multiple case data.

Similarly, March's characterization of the technology of foolishness suggests that there may be a wide range of intentional modes available to

scenario development. As one extreme form, we might find scenario planning activities that are directed by necessity toward a fixed purpose, which the process design (as well as all participant contributions) should consistently and rationally serve. In a contrasting form, scenario planners would assume that the purpose of the activity (no less than the purpose of the organization itself) would emerge and change through the activity itself, and that the process should remain as playful and fluid as possible in the interest of generating new variations with increased adaptive potential. By tracking a series of variations over the course of scenario development processes, future research might establish more clearly a basis for the claim that scenarios can be effectively developed through serious play.

In line with van der Heijden et al. (2002) suggestion, we also believe that future research might fruitfully address the importance of organizational identity for scenario planning. In the case illustration, TelCo began with an introspective construction of their own identity, and subsequently began to explore the relationship between this identity construction and contingencies in the external environment. The three-dimensional model on the table thereby consisted of a simultaneous inquiry into organizational and environmental variables. And yet, psychological theory suggests that the distinction between inside and outside ambiguous in the transitional space of play. So then, how should scenario development processes account for the complex interdependencies that link an organization to its environment? What are the practical implications of inviting participants to render their implicitly held assumptions about the organization's identity explicit? How do differences in strategists' suggested organizational identity play out in the collective, discursive process of scenario development?

## Conclusion

We began this paper with the conceptualisation of scenario planning as a means for strategists to review and shift their mental models on strategic phenomena. We noted that while the process itself has traditionally involved the rational analysis of coherent narratives, recently there have been calls within the field to consider scenario development approaches that involve more creativity and intuition. As a contribution to this ongoing conversation in the field, we recalled the distinction March (1979) drew between the 'technology of reason' and the 'technology of foolishness,' and we pursued his suggestion that play is the archetype of foolishness. In this regard, we presented two psychological theories that conceptualise play as the imaginative creation of meaning with adaptive potential. We went on to consider organizational research that develops the concept of 'serious play', and we concluded our theoretical considerations with the contention that serious play might provide one way to extend the conceptual basis of scenario planning by making it more creative and intuitive. In the interest of exploring some of the normative implications of this contention for scenario planning in practice, we presented an illustrative case in which the senior strategy team of a large, European telecommunications firm developed scenarios through a seriously playful process. These empirical data led us to suggest that while the concept of serious play might serve to guide scenario development processes that more effectively review and shift mental models, additional research is required to clarify and establish the importance of specific variables such as the medium of expression and communication, the mode of intentionality, and the role of organizational identity in scenario development processes.

## Notes

1. In this regard, a glance at the history of war gaming would suggest that play has long been affirmed as essential to scenario development processes. At the same time, to the extent that the transitional space of play involves an ambiguous lack of differentiation between self and other, a critical question arises about the mental model, which maintains the classic distinction between blue and red.

2. Although organizational science has engaged with psychoanalysis (e.g. Gabriel, Hirschhorn, & Allcorn, 1999; Kets De Vries, 1984; Kets De Vries & Miller, 1986; Kisfalvi, 2000), we acknowledge the recent controversy whether unconscious, preconscious or tacit knowledge can in fact be externalized (Tsoukas, 2003).

3. We refer to this organization as 'TelCo' in deference to confidentiality agreements.

4. The toy construction materials employed were LEGO materials – a multi-colored, multi-shape connective set of a wide range of bricks.

**References**


Amabile, T. 1996. ***Creativity in context***. Boulder, Colo.: Westview Press.

Barr, P. S., & Huff, A. S. 1997. Seeing isn't believing: understanding diversity in the timing of strategic response. ***Journal of Management Studies***, 34: 337-370.

Barr, P. S., Stimpert, J. L., & Huff, A. S. 1992. Cognitive change, strategic action, organizational renewal, ***Strategic Management Journal***, Vol. 13: 15-36.

Barry, D. 1994. Making the invisible visible: Using analogically-based methods to surface unconscious organizational processes. ***Organization Development Journal***, 12(4): 37-47.

Buergi, P., Jacobs, C. D., & Roos, J. 2004. From metaphor to practice in the crafting of strategy. ***Journal of Management Inquiry***, in press.

De Geus, A. 1988. Planning as Learning. ***Harvard Business Review***(March-April): 70-74.

De Wit, B., & Meyer, R. 2001. ***Strategy. Process, Content, Context*** (2nd ed.). London: Thomson Learning.

Doyle, J. R., & Sims, D. 2002. Enabling strategic metaphor in conversation: A technique of cognitive sculpting for explicating knowledge. In A. S. Huff, & M. Jenkins (Eds.), ***Mapping Strategic Knowledge***. London: Sage.

Erikson, E. H. 1963. ***Youth: change and challenge***. New York,: Basic Books.

Fahay, L., & Randall, R. M. 1998. ***Learning from the future: competitive foresight scenarios***. New York: Wiley.

Gabriel, Y., Hirschhorn, L., & Allcorn, S. 1999. ***Organizations in depth : the psychoanalysis of organizations***. London ; Thousand Oaks, Calif.: Sage Publications.

Gardner, H. 1993. ***Frames of mind : the theory of multiple intelligences*** (10th anniversary ed.). New York, NY: BasicBooks.

Geertz, C. 1973. ***The interpretation of cultures; selected essays***. New York,: Basic Books.

Glynn, M. 1994. Effects of work task cues and play task cues on information processing, judgment, and motivation. ***Journal of Applied Psychology***, 79(1): 34-45.

Goodwin, P., & Wright, G. 1998. ***Decision analysis for management judgment*** (2nd ed.). Chichester: Wiley.

Goodwin, P., & Wright, G. 2001. Enhancing strategy evaluation in scenario planning: A role for decision analysis. ***Journal of Management Studies***, 38(1): 2-16.

Guth, W. D. 1985. Handbook of business strategy: v. [Boston]: Warren, Gorham & Lamont.

Hodgkinson, G. P. 1997. Cognitive inertia in a turbulent market: the case of UK residential agents. ***Journal of Management Studies***, 34: 921-945.

Hodgkinson, G. P., & Wright, G. 2002. Confronting Strategic Inertia in a Top Management Team: Learning from Failure., ***Organization Studies (Walter de Gruyter GmbH & Co. KG.)***, Vol. 23: 949: Walter de Gruyter GmbH & Co. KG.

Huizinga, J. 1950. ***Homo ludens; a study of the play-element in culture***. London,: Routledge & K. Paul.

Ibarra, H. 2003. ***Working identity : unconventional strategies for reinventing your career***. Boston, Mass.: Harvard Business School Press.

Kets De Vries, M. F. R. 1984. ***The neurotic organization: diagnosing and challenging counterproductive styles of management***. San Francisco: Jossey-Bas.

Kets De Vries, M. F. R., & Miller, D. 1986. Personality, Culture, and Organization., ***Academy of Management Review***, Vol. 11: 266: Academy of Management.

Kisfalvi, V. 2000. The threat of failure, the perils of success and CEO character: sources of strategic persistence. ***Organization Studies***, 21(3): 611-639.

March, J. G. 1979. The technology of foolishness. In J. G. March, & J. P. Olsen (Eds.), ***Ambiguity and choice in organizations***: 69-81. Bergen: Universitetsforlaget.

Mead, M. 2001. ***Coming of age in Samoa : a psychological study of primitive youth for western civilisation*** (1st Perennial Classics ed.). New York: Perennial Classics.

Montgomery, C. A., & Porter, M. E. 1991. ***Strategy : seeking and securing competitive advantage***. Boston: [Harvard Business School Press].

Piaget, J., & Inhelder, B. 1958. ***The growth of logical thinking from childhood to adolescence; an essay on the construction of formal operational structures***. New York: Basic Books.

Ringland, G. 1998. ***Scenario planning : managing for the future***. Chichester ; New York: Wiley.

Roos, J., & Victor, B. 1999. Towards a New Model of Strategy-Making as Serious Play. ***European Management Journal***, 17(4): 348-355.

Roos, J., Victor, B., & Statler, M. 2004. Playing seriously with strategy. ***Long Range Planning***. in press.

Schoemaker, P. J. H. 1993. Multiple Scenario Development: Its Conceptual and Behavioral Foundation. ***Strategic Management Journal***, 14(3): 193.

Schoemaker, P. J. H., & Gunther, R. E. 2002. ***Profiting from uncertainty : strategies for succeeding no matter what the future brings***. New York: Free Press.

Schrage, M. 2000. ***Serious play : how the world's best companies simulate to innovate***. Boston, mass.: Harvard Business School Press.

Schwartz, P. 1991. ***The art of the long view*** (1st ed.). New York: Doubleday/Currency.

Sutton-Smith, B. 1997. ***The ambiguity of play***. Cambridge, Mass.: Harvard University Press.

Tsoukas, H. 2003. Do we really understand tacit knowledge? In M. Easterby-Smith, & M. A. Lyles (Eds.), ***The Blackwell handbook of organizational learning and knowledge management***: 410-427. Malden, MA: Blackwell.

van der Heijden, K. 1996. ***Scenarios : the art of strategic conversation***. Chichester: Wiley.

van der Heijden, K., Bradfield, R., Burt, G., Cairns, G., & Wright, G. 2002. ***The sixth sense: accelerating organizational learning with scenarios***. Chichester: Wiley.

Vygotsky, L. S., & Cole, M. 1978. ***Mind in society : the development of higher psychological processes***. Cambridge: Harvard University Press.

Wack, P. 1985a. Scenarios: Shooting the rapids (Part 2). ***Harvard Business Review***, 63(6): 139-150.

Wack, P. 1985b. Scenarios: Uncharted waters ahead. ***Harvard Business Review***, 63(5): 72-88.

Weick, K. E. 1990. Introduction: Cartographic myths in organizations. In A. S. Huff, & M. Jenkins (Eds.), ***Mapping Strategic Thought***. Chichester: John Wiley.

Winnicott, D. W. 1971. ***Playing and reality***. London,: Tavistock Publications.

Worren, N., Moore, K., & Elliott, R. 2002. When theories become tools: Toward a framework for pragmatic validity., ***Human Relations***, Vol. 55: 1227-1250.

Wright, G., & Goodwin, P. 1999. Future-focused thinking: combining decision analysis and scenario planning. ***Journal of Multicriteria Decision Analysis***, 8: 311-321.

## Table

| | **Technology of Reason** | **Technology of Foolishness** |
|---|---|---|
| *Nature of Purpose* | Pre-existing | Emergent |
| *Congruence of Action* | Necessary consistency | Possibility of Fluidity |
| *Privileged source of meaning* | Functional rationality | Intuition |

Table 1: Technology of Reason and Technology of Foolishness (Based on March, 1979).