SCENARIOS FOR IMPROVISATION:
LONG RANGE PLANNING REDEEMED¹

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ABSTRACT

Planning has been proclaimed dead over and over. Chaos and disorganization have been advocated as the new way of managing. Nonetheless, managers have yet to adopt these techniques and complexity theory tell us that if they do, their organizations will be just as unbalanced and unfit as they are today. Complex environments call for both planning and creativity. In this article we propose a method for tackling this challenge, improvisational scenario planning, that relies on an organizational and a process infrastructure that, when aligned, create an action infrastructure that allows organizations to plan in real-time, as events and action unfold.

In today's managerial theories and practices, planning has become, in both academic and business circles, an outmoded and, we daresay, 'dirty' word.

Planning or, better yet, strategic planning's epitaph has been written and read aloud over and over again by both academics and management gurus (e.g. Peters 1992; Mintzberg 1994; Stacey 1996; Handy 1991). Planning has been labeled a worthless ritual and likened to a 'corporate rain dance', to paraphrase Mintzberg (1994).

This paper draws on the concept of scenario development as a learning tool (Kleiner, 1994), elaborating it in order to contribute to a redemption of strategic planning. This is accomplished by showing that the *process* of performing scenario planning builds a solid foundation for organizational improvisation, which can be defined as planning as action unfolds by drawing on available resources, by facilitating the sharing and compatibilization of mental models among individuals, and by providing an environment where the organization's members can practice coordination through action. Moreover, we argue that the *results* of scenario planning can serve as shared theories, necessary for improvisation to take place.

Firstly, we offer an explanation for the rise of planning as one of the most popular concepts in management theory and practice, and for its recent downfall as an outmoded, useless and dangerous corporate endeavor. We then turn to the alternative, all-informal, model that gurus and consultancies have been pushing, helped by the popular business press as the new way to do strategy, in order to show, by drawing on complexity theory, that this model is also inadequate for organizations that want to survive, let alone thrive in the new competitive landscapes (Bettis & Hitt, 1995). Finally we draw on research on scenario planning to show that there's a third way, a way in which scenario planning is used not as a planning tool but instead as a dialectic

strategy building mechanism that allows companies to reap the benefits of planning without jeopardizing the flexibility associated with informal coordination systems.

THE RISE OF STRATEGIC PLANNING

One cannot help but wonder that if planning and formal strategy making tools in general are plagued with so many ills, why did they gained legitimacy in the first place? There is a twofold set of reasons for this to have happened.

External reasons are a first element of this set. The first large scale organizations / corporations inhabited environments of relative stability, environments that, according to the typology put forth by Emery and Trist (1965), can be labeled as 'placid-clustered' and 'disturbed-reactive'. In both environments, market opportunities and threats are clustered in the consumer space and their position remains somewhat constant over time. The only difference between these two environments is that, in the second type competition is a more important factor than in the second. This stability in threats and opportunities, pushes companies to pursue efficiency once they have occupied a given cluster (ensuring effectiveness), either to single-handedly reap its benefits or to do so while defending it from competitors. In this kind of settings, planning assumes a very important role as *the* mechanism for ensuring that the company chooses the best cluster available and that it allows both high profits and a competitive market position (Porter, 1982).

Internal reasons for the legitimacy of planning report to the kinds of organizations that were around at the time that planning was born. The type of environments discussed above emerged in an era when growth was the *plat du jour* of industrialized economies, due to a series of historical coincidences. Furthermore there were important innovations in production and transportation technology that created, for the first time in history, the possibility for serving ample markets from a central

geographical location (Chandler, 1962). The sheer number of workers needed to ensure the levels of output the market was able to absorb pushed corporations, as a population, along their life cycle towards formal organizational forms (Greiner, 1972). At first, coordination in this type of organizations was carried by direct supervision. People started worrying about issues such as spans of control (Fayol, 1949) and what were the appropriate functions of the executive (Follet, 1940). Planning first emerged as an activity separated from execution / production (Taylor, 1947) and labeled as one of the major functions of executives / managers (Barnard, 1938), who were supposed to make decisions and draft plans that would improve the overall efficiency of the corporation.

It wasn't until corporations started to diversify their operations geographically, especially in what concerns sales and marketing, that strategic planning achieved its current standing of the most important managerial function. In fact, it was this diversification that allowed for the divisional / M-form to appear (Galbraith, 1973), legitimizing an organization whose major coordinating mechanism was the strategic plan. Unable to supervise in a direct fashion a growing number of divisional managers, often far away from the company's headquarters, top management started enforcing a strong adherence to a set of figures that emerged from annual planning exercises and that ensured that the organization remained under their control, not by the prescription / enforcement of processes, but by ensuring that pre-determined results were met (Greiner, 1972).

Ultimately, strategic planning and management-by-objectives provided these same managers with a strong feeling of authority over the fate of their corporations, a necessity not only of sound business practice but also (and mostly) of the human need to feel in control of one's own future (Kets de Vries and Miller, 1984; Stacey, 1991).

THE FALL OF STRATEGIC PLANNING

Strategic planning's popularity didn't last forever, though. The last two decades witnessed a series of discontinuities in the social, economic and technological environment (Handy, 1991). These discontinuities altered qualitatively the causal texture of organizational environments, sending companies to 'turbulent fields' (Emery and Trist, 1965), where unexpected changes emerged not from the will of the players in a given competitive arena, but from the market itself. Economies, consumers and companies knit, together, very complex environments (Stacey, 1996; Pascale, 1999). This complexity was not matched by the relatively low internal complexity of organizational decision and execution processes (Mintzberg, 1994).

In this type of environments, formal strategic planning processes seriously hamper corporate flexibility and action speed (Wall and Wall, 1995) and thus new processes of strategy formulation were badly needed, especially in those countries (in Europe and North-America) hit by unexpected newborn industrial giants (Japan) (Peters and Waterman, 1982). This need emerged from the increased visibility of four major fallacies of planning.

The first fallacy was the fallacy of stability. Formal planning was grounded on the assumption that the future depended mostly on the past and, thus, that the environment would remain stable. We have now anecdotal (e.g. Peters, 1992) and empirical (e.g. Brown and Eisenhardt, 1997; Eisenhardt and Tabrizi, 1995) evidence that this is not so. In most industries, important and discontinuous change occurs very frequently (D'Aveni, 1995). Furthermore, some authors even argue that this is a phenomenon extending to every single economic sector and increasing in complexity (e.g. Bettis & Hitt, 1995). As a consequence, formal plans fall quickly into obsolescence not only because their major basis – the past – is no longer an accurate

compass for the future, but also because change is so pervasive that the environment can suffer important alterations while the formal planning process is undergoing (Mintzberg, 1994).

Another important fallacy of planning is the fallacy of control. The supervision power often ascribed to formal coordination mechanisms like objectives, budgets and even direct orders, are mostly an illusion. Research on corporations as political systems (Pfeffer, 1992) and on the so-called informal organization (Krackhardt & Hanson, 1993) clearly show that very little of what a company really is, is conveyed by its formal organization chart, prescribed channels of communication and superior-subordinate relationships. Plans and strategic objectives seem thus to possess a very limited activity to *de facto* influence the organization's deliberate activity, let alone its realized outcomes (Mintzberg and McHugh, 1985).

Closely related to this phenomenon, is what we can call the fallacy of formality / formal decision making. Formal planning systems depart from the questionable assumption that environmental challenges can be tackled by rational decision making procedures of the kind that generate, evaluate and choose among alternatives (Mintzberg, 1994; Barnard, 1938). What is more, formal strategic planning seems to assume that organizations and their members actually use this kind of algorithms when making decisions (Markides, 1997). Nonetheless, research has clearly shown that individuals operate by sensemaking – meaning that they act in order to decide – and not by decision making – where they are supposed to decide in order to act (Weick, 1979, 1995). Moreover, empirical investigations on what managers really do, show that there is no place at all for formal planning activities in a typical manager's day, independently of his or her position in the hierarchy (Mintzberg, 1975).

A final fallacy is the fallacy of separation. Taylor (1947) laid the ground for this assumption when he asserted that conception should be separated from execution. In terms of corporate strategy building processes, this means that those designing the strategy should be clearly separated from those implementing it, because only such a detachment allows for an the 'mountain top view' so necessary for making decisions about future direction (Barnard, 1938). However, there is ample anecdotal (e.g. Peters and Waterman, 1982) and empirical (e.g. Weick, s.d.) evidence that those that are better equipped to formulate strategy are those closer to the market / customer because they are the people with: (a) the least distorted / more accurate and (b) timelier information about what is really happening in the environment. The separation between designing and implementing strategy appears thus as a dangerous one in organizations facing turbulent environments (Mintzberg, 1994).

Finally, it is worthwhile to point out that the outmoding of planning didn't just come about from a sudden realization of these fallacies – planning was, in fact, deemed out-fashioned. As it has been well documented (e.g. Micklethwait and Wooldridge, 1996) we have been witnessing the emergence of a fashion industry in management theory where the *couturiers* are management gurus and the *maisons* are major consulting companies. This rising industry has a strong influence on what is considered to be the 'standard of good management' and can strongly influence the administrative innovations companies choose to adopt, regardless of their intrinsic efficiency. In this light, one could argue that although formal planning is in fact ill-suited to help corporations tackle the challenges of today, it is a fact that both gurus and consultancies have been underwriting a discourse that amounts, more often than not, to little more than to an emotion-laden 'good riddance' eulogy to planning (Shapiro, 1995) – instead of a compelling rational argument for its abandonment as a

sound managerial practice. This phenomenon has, to be sure, a relevant quota of responsibility for the growing unpopularity of planning.

THE NEW DEAL

Consulting companies and ‘management gurus’ did not hunt planning naively. They did so because they were selling books, conferences and consulting packages that promised to deliver management the new tools needed, to paraphrase Peters (1987), to thrive in a world where chaos wrecked havoc the once profitable giants of industry (Micklethwait and Wooldridge, 1996). The new standard of managing was, not surprisingly, built upon, by the means of antithesis, the fallacies we identified before (Table 1 contrasts the two approaches).

Insert table 1 about here

This was a more profitable venture for this industry than the tools they had developed for formal planning systems because the tasks, challenges and assumptions that this new way of managing called for were, and still are, ‘uncommonsensical’ in what concerns what is believed to be the ‘proper’ work of a manager (Bennis, 1989). From this point on, consulting companies were not only called upon to tell companies and their managers how to better accomplish their purposes, but to convince everyone except the CEO (who hired the consultants) that they (and the company) did in fact need those changes (Shapiro, 1995).

In fact, a first principle of this new way of managing was that of embracing urgent change. The point here is that change and turbulent environments are here to stay (Bettis and Hitt, 1995; Emery and Trist, 1965) and that any attempt to reduce environmental change will be fruitless – instead of trying to achieve profits *in spite* of

environmental uncertainty, companies are called to obtain positive results *through* that change (Peters, 1992). This demands organizations with much more tolerance for uncertainty with members able to deal with increasing levels of anxiety, because one of the few certainties they have is that the context shaping their work is in a constant state of flux and that the outcomes of that flux are impossible to be envisioned – such is the complexity of their environment (D'Aveni, 1995; Eisenberg, 1990; Stacey, 1996).

In addition, organizational members are not just called to use external change in favor of the organization – they are urged to do so fast, really fast. Peters, for example, pleads that “every managerial act must be seen as an unequivocal support for urgency in pursuit of constant testing, change and improvement” (1987: 470). The ready-aim-fire of planning is replaced by the fire-fire-fire of pure experimental action.

A second principle for success in turbulent environments is the abandonment of visible control. Peters drives this point home when quoting from Nicole Kidman, in *Days of Thunder* telling to Tom Cruise: “Control is an illusion, you infantile egomaniac. No one controls anything” (Peters, 1995: 86). This does not mean however that management should surrender its directive vocation, instead organizations are called to change the nature of their control mechanisms from having a direct focus on activity to having an indirect focus on assumptions, values and beliefs – abandoning first and second order controls, such as direct supervision and standardization (Perrow, 1986). This allegedly would foster more initiative from workers while *de facto* increasing the level of control the organization had over them. Nonetheless, if one looks into what have been the prescriptions for implementing this type of policies, we can see that what has really been accomplished is to sublimate to

invisibility the control mechanisms already present, be they direct supervision or any form of work standardization (Sewell, 1998).

The more radical 'gurus' / consultants took this principle one notch further by pushing the two social coordination systems alternative to hierarchy: the market and the network (e.g. Halal, Geranmayeh & Pourdehnad, 1993; Baker, 1994). These authors believed that empowered, participant and 'knowledge' workers are not willing, and cannot (productively), be subjected to power – either they are coordinated by trust or by the invisible hand of the market (Handy, 1991).

The third principle advocated by those endorsing this radical alternative to formal strategic planning was that of the primacy of the informal organization. This approach drew on the fact that the most interesting innovations, in organizations, came from informal groups like 'skunkworks' (Peters and Austin, 1986) to argue that everything in an organization should be mostly informal. This rationale pushed for the pursuit of effectiveness as *the* path for market leadership warning against the danger of producing with increased levels of efficiency a product that no customer wanted. What this point fails to take into account, is that although innovation does in fact happen predominantly in the informal side of a corporation, effectiveness is one – but not the only – important goal of an organization (Drucker, 1993). Producing a product that matches entirely what the market wants, but that does so at a prohibitive price is as much of a mistake as the blind quest for efficiency is. In this way, an organization needs both the effectiveness seeking informal structure to be sure that it is adequately exploring its environment for opportunities, and the efficiency seeking formal structure to exploit those opportunities, reaping their potential benefits (Stacey, 1996).

The fourth and final element of the new management standard is a twofold trend against the division of labor.

On the one hand, in what concerns vertical separation between planning and execution, this approach contends that only those that are closer to the 'front line' / customer have enough 'clear' information to act according to market challenges and opportunities in a timely fashion. Since these challenges are of a fleeting nature, these people cannot wait for a contingency plan to be made by their superiors – they must act promptly at the expense of losing the opportunity to solve a problem or to take advantage of an unanticipated event (Crossan, Lane, White and Klus, 1996). They must, themselves, plan their actions in real time and interact with the market at the latter's pace (Moorman and Miner, 1998a; Weick, 1990).

On the other hand, in what concerns horizontal differentiation, this approach calls for flipping its axis from functions to customers. This means that every employee should be able to perform every function needed to cater every need of an individual customer (Peters, 1994). The rationale behind this point is, again, that unexpected occurrences are too diverse and too fleeting for employees (and often customers) to hold their breaths while the boss makes a decision. In an age of exploding choice, where a wrong (or too long) resolution of a customer's problem can mean defection and bad word-of-mouth, while an elegant and prompt one can mean the opposite – for life – employers, these authors say (e.g. Byham & Cox, 1998) should be empowered to handle any issue effectively and on the spot.

THE THIRD WAY

This approach, emerging from a fundamental attempt to find new ways of building strategy is still very unintuitive for managers. After all, managers are supposed to be responsible for the fate of their organizations, and if they have such a degree of responsibility they should have a matching degree of authority. Most authors / 'gurus' acknowledge the presence of such a tension, but they urge managers

to let it go, at the expense of the very survival of the companies they now lead (Shapiro, 1995). This is not an easy task to accomplish, however. In fact, in the introduction to one of his recent bestsellers, Peters states that "If you're not irate in the first thirty minutes of reading [this book], if you don't throw this book down at least once in the first hour, and if you don't reach for the Maalox by the two hour mark, then I and this book have utterly failed you" (Peters, 1994: 322). In this light, and drawing on the landmark experience of Shell in the three oil crisis that hit the economic world between the mid-seventies and the mid-eighties (Wack, 1985), some authors have been endorsing a departure from traditional strategic planning, but one closer to managers' mental model of their role in the organization than the 'thriving on chaos' one. This approach – often called 'traditional scenario planning' – acknowledges that the future is no longer a function of the past, but that a variation of traditional planning can be used to prepare the organization for that uncertain future (Godet & Roubelat, 1996). This planning method calls for the development of possible scenarios, normally in a threefold set composed by a pessimistic one, an optimistic one and an expected one. The rationale behind it is that if the future is just an extrapolation from the past, then the company should execute the 'expected' scenario. Otherwise, if it turns out to be either gloomier or brighter than the past then the organization can recur to the pessimistic and optimistic scenarios, respectively – avoiding to be forced to plan as events unfold. This method perpetuates most of the fallacies of traditional planning, especially the one considering that thought must always precede action instead of the opposite – a dangerous premise for a changing world (Weick, 1979, 1990, 1995; Berry & Irvine, 1986). Furthermore, it still relies on the assumption of a linear evolution, when we know, both from anecdote and

research, that discontinuity is most industry's *plat du jour* (Handy, 1991; Brown and Eisenhardt, 1997).

In addition, this method aggravates some of the elements of the downside of planning. It is much more costly, because companies have to develop no one but several full-fledged plans. It increases frustration, because companies know that, at the most, only one of the plans you developed is really going to be implemented and, subsequently, gives the perception of being a waste of valuable management time.

In this vein, a group of authors (Kleiner, 1994; Godet and Roubelat, 1996) proposed a different approach to scenario planning that emphasized the process of this method, instead of its outcomes. Most of these authors present scenario planning as one of the most powerful ways of aligning the mental models of those participating in this endeavor and some go to the length of prescribing a 'how to' series of steps to accomplish this result.

In this article we argue that, although mental model alignment is indeed an important outcome of 'proper' scenario planning, this process can be much more powerful by, not only through its process, but also through its results, enabling the organization to plan in real-time responses to unexpected events using available resources. Moreover, we contend that this approach to scenario planning favors not only those participating in the process, but the organization as a whole.

We label this approach 'improvisational' scenario planning because it uses scenarios to enhance the organization's ability to respond to unexpected and unplanned for events while they are unfolding – a competence whose relevance seems to be growing in ever-shifting environments (Weick, 1990, 1993; Crossan et al., 1996).

To make this point clearer, we can draw on complexity theory to approach organizations as ‘complex systems’ (Stacey, 1996). By doing this, we depart both from traditional planning and from radical ‘management by not managing’ theories because, by definition, complex systems are better able to adapt effectively and efficiently to their environment at the thin frontier between totalitarianist order and anarchic disorder (Pascale, 1999). In this vein, scenario planning can be used to build the minimal (enough, but no too much) structure that complex systems need to remain flexible towards their environment.

If conceived in this light, scenario planning needs aligned and adequate – one is tempted to say, minimal – (1) organizational and (2) process infrastructures to build an (3) action infrastructure that enables the organization to plan efficient and effective responses in real time (Figure 1 shows the integrated model).

Insert figure 1 about here

The *organizational infrastructure* is driven by five major principles.

First, organizations must acknowledge and value ‘emergence’ as a favorable input for strategy and action. This means breaking from the mindset that emergence is a necessary evil (Taylor, 1947; Barnard, 1938), that should be reduced as much as possible, to see it as an environmentally induced distortion that can be used to the organization’s benefit (Mintzberg and McHugh, 1985). In practice, this calls for allowing an informal ‘shadow’ organization to evolve, alongside its formal counterpart, which can have an important contribution in taking advantage of these unplanned variations and changes (Stacey, 1996). Moreover, the company has to be able to resist the temptation to impose formal constraints on such a structure, which

would probably lead to its quick demise (Lanzara, 1983) – a possible explanation for the disappointing results of ‘quality circles’ (Peters & Waterman, 1982). Additionally, it is prudent to take heed of forfeiting the formal structure in favor of the informal one – a move that would take the organization from strict order to freewheeling chaos (Stacey, 1991).

The principle of ‘safety’ ensures that that of emergence bears visible results for the company. It does so by ‘opening communication channels’ between the formal and the informal facets of the organization. The absence of an environment where people feel there is a ‘safety net’ that allows them to take the risks embedded in the conception of action during performance and those intrinsic to the voicing of deviant worldviews and perceptions, will confine both to the informal organization resulting in organizational paralysis either through lack of action (Weick, 1990; s.d.; Bastien and Hostager, 1988) or through overt political conflict (Pfeffer, 1992).

Thirdly, the principle of ‘diversity’, materializes in multi-functional teams that ensure that the organization possesses the requisite variety necessary for innovative / creative ideas to be designed and to emerge. The point here is that no matter how safe the organizational climate is or how vivid is the ‘shadow’ organization, if people share the same worldview, perceptions and mental models in general, then little variety of action will come about (Amabile, 1998). The answer here is to build teams comprising people with diverse views among whom there is ‘minimal (enough, but not too much) consensus about the problem definition and the alternatives of solution (Hedberg, Nystrom & Starbuck, 1976).

When these diverse teams go through scenario planning exercises (especially in the ‘rehearsal’ phase) it is necessary that they have an accurate perception of what are the ‘real-life’ (as opposed to ‘abstract’) consequences of the alternative courses of

action, otherwise they risk to build shared / aligned mental models that do not take into account minor, but important, pieces of the organization and the problem, which can backfire when 'planning in real time' (Wack, 1985). This is what we call the principle of 'locality'.

The final principle of what constitutes the organization's infrastructure is that of 'action'. This 'planning for improvisation' can only be effective if the organization foregoes the fallacy of decision making and its central assumption – that learning can occur without action (Mintzberg, 1994). In this vein, in changing and complex environments, organizations can only learn by acting, which is the only way in which mental models, especially as far as their tacit element is concerned, do change *de facto*. Learning and, one may argue, strategy building, is thus transformed into an exercise of sensemaking and action instead of being one of decision making and planning (Weick, 1979, 1995) and, in this way, becomes fitter to the 'turbulent fields' that most organizations inhabit these days (Bettis & Hitt, 1995; Emery and Trist, 1965).

The *process infrastructure* refers to those characteristics that enable scenario-planning exercises to be useful for action during unexpected and unplanned for occurrences.

A first characteristic of this process is that it should be story-based (as opposed to fact-based) – this is what we call the 'storytelling' principle.

In fact, research on communication has shown that a story is a more powerful way to convey facts than data – and its communication power is even superior to the combination of storytelling and data (Kouzes & Posner, 1987). Scenarios used to perform strategy-building and mental model alignment, are thus more effective if factual quantitative information is kept to the minimum and replaced by stories about

possible futures. Additionally these stories should be deep plots, rich in detail (Williamson, 1999; Godet & Roubelat, 1996). This allows participants to share not only the broader assumptions, values and beliefs of their mental models, but also their more intricate details, which often end up causing most of the misunderstandings during action (Senge, 1990; Argyris and Schön, 1992). Furthermore, as Wack (1985) argues, these stories should have 'catchy' titles that build up the organization's common language to perceive and make sense of (sensemake?) reality. This type of stories fosters ongoing conversations, widely grounded in action, either through living the scenarios or through working on actual changes, that go uninterrupted when the environment deviates from its expected (and, more often than not, planned) course and that allow their interlocutors to tackle unexpected challenges as they occur (Brown and Duguid, 1991).

The principle of 'urgency' is fundamental for 'improvisational scenario planning' to be improvisational. If time is but a secondary consideration for those participating in such an effort, then they will probably resort to individual planning, instead of concerted action to handle the challenges put forth by the various scenarios (Crossan and Sorrenti, 1997; Crossan et al., 1996). This is especially dangerous, because it will probably bias the organization's procedural memory towards the separation of conception from execution, towards decision making instead of sensemaking, towards planning instead of action. Due to the fact that organizations only forego current procedural memory after the current situation becomes untenable, then much damage will have ensued before planning is forfeited for acting (Hedberg et al., 1976).

Since scenarios are artificially created contingencies, it may seem difficult to instill any sense of urgency in it. Nonetheless, drawing on the work of Eisenhardt

(Brown and Eisenhardt, 1997; Eisenhardt and Tabrizi, 1995; Eisenhardt, 1997) one can easily argue that project milestones and frequent feedback are more than enough to create that urgency.

Another principle that needs to be taken into account is that of 'relevance'. Scenarios should address important concerns to those participating in this type of exercise. If they're not, then the whole process may be jeopardized by turning itself into a mere exercise of theory and rhetoric (Godet & Roubelat, 1996). 'Relevant scenarios', also means that scenarios should be designed around key uncertainties (Wack, 1985).

This implies, firstly, that alternative plots only need to include a restricted set of relevant organizational and environmental change drivers so that the process of 'rehearsing' these plots is manageable. In truth, if one was to include all the possible changes, either internal or external, into a set of scenarios, then their design process would never come to an end, because of the high degree of complexity organizations now face (Pascale, 1999).

Secondly, this focus means that those conceiving the plots should also be able to identify 'certain events', which are relevant inputs for the organization's strategy but that have a very strong probability of remaining constant (Wack, 1985). Nonetheless, it is worth to point out that one should approach this latter task warily for what our mental models deem as stable may not in fact be so (Senge, 1990).

This opens up the way for the fourth driving principle for creating scenarios that build the organization's improvisational skills – that of unconformity. For learning to occur, and for compatible mental models to emerge, especially among those that guide action, then the current worldview must be challenged (Kleiner, 1994). If scenarios are just small variations of current perceptions held by the

organization, it will just rely on stored procedural routines for handling such events (Moorman and Miner, 1998). Only when the proposed plots challenge those views, participants are encouraged to forego their habitual procedures and arrive to new ones. The outcome is not as much a new set of routines to deal with reality as the ability to build those routines while acting on an unexpected and unplanned for occurrence.

In the end, the learning that comes from using scenario planning, and the increased improvisational skills that ensue, depend on the application of the last principle related to this process – that of ‘rehearsal’. Scenarios will be useless if they only amount to stacks of paper stored in someone’s desk – no matter how well rendered these plots are. It is only by acting on them, as if they were in fact taking place, that organizational members can build together compatible mental models that foster effective action when facing surprises.

If the organizational and process infrastructures described above are in place, the stage is set for an *action infrastructure* to emerge. By this term, we mean a set of conditions that allows the organization to conceive responses to unexpected events, while both the event and that response are unfolding, thus making the emergent component of strategy work to the organization’s benefit.

A first characteristic brought about by improvisational scenario planning is the generality of resources and skills. By deploying the same resources and skills to very disparate – and possibly contradicting – scenarios, the organization builds a wider procedural memory for using those skills and resources (Lanzara, 1983) building a solid basis for bricolage, an important facet of organizational improvisation. The skill of bricolage allows an organization to build responses from whatever materials are at

hand (Levi-Strauss, 1966; Weick, 1993), thus exempting it from waiting for 'optimal' resources to be available when fast action is required.

Speed of action is also favored by improvisational scenario planning by aligning and rendering compatible the different worldviews in the organization. This type of scenario planning fosters thus a shared 're-perception' of the world building on the sensemaking that ensues from the concerted action resulting from the application of this method (Markides, 1997; Weick, 1995). This shared re-perception means that participants are able to 'repopulate their mental worlds' by building a fresh mental map of the main actors affecting their activity, and of the relationships among them (Lane & Maxfield, 1996). Additionally, since that 're-perception' results from action instead of thought, it facilitates the transmittal of tacit knowledge which is, by definition, absent from the outcomes of formal planning procedures – such as plans and budgets (Nonaka, 1991).

Another important characteristic of this action infrastructure – and a closely related one to that of alignment discussed above – is the shift from direct supervision and standardization / budgeting controls to what is often labeled as 'third order controls', meaning control by culture / perception (Perrow, 1986). The shared mental maps resulting from improvisational scenario planning, together with the shared language that accompany them (Kleiner, 1994), act as integrating mechanisms by prescribing a common basis from which actions are extrapolated, thus rendering the other forms of control virtually obsolete.

Generative relationships are another characteristic of this action infrastructure. Generative relationships are those from which innovation ensues in an emergent (i.e. unplanned for) fashion (Lane and Maxfield, 1996). Generative relationships cannot be detected *a priori*, only in retrospect. In this vein, the fact that improvisational scenario

planning puts agents in an action-based contact with each other, allows each participant to detect the potential for this type of relationships in retrospective to rehearsed action but *a priori* of actual environmental challenges. This builds a set of informal arrangements among organizational members that allow for generative relationships to be tapped in real-time during an important but unexpected event.

Finally, this action structure possesses a characteristic we can call deliberateness because, by fostering improvisation, it allows the organization to have its say on emergent action, as an aspect of strategy that most deem as uncontrollable (e.g. Mintzberg and McHugh, 1985) – a skill of growing importance in a time when the growing complexity of both organizations and environments has the potential to dramatically increase the relative weight of this component of strategy (Bettis & Hitt, 1995).

CONCLUSION

The obituary of planning, especially of long range planning, has been read aloud, again and again. If complexity and relentless changes are the culprits of its downfall, consulting companies and so-called ‘management gurus’ are important accessories to it. In fact, although the turbulence we are now witnessing in most business environments is all but a fertile ground for long range forecasts and plans, consultants and ‘gurus’ have mercilessly promoted a fashion trend – sometimes at the expense of their own clients and audience – where organization, as a verb, seems to have no place at all.

This new theory of formlessness is, however, facing important resistance in the field because managers are still having trouble at abandoning the mental model of the manager that still pervades their folklore – the analyst, the rational decision maker (Mintzberg, 1975). They know that this is not what their daily activities are like, but

they still feel it's the right way. They view this model as the normative image of the manager, which every professional should strive for (Sayles, 1989). Because of this, most of the popular business press has urged them to shift their normative model to the newer management style it advocates, encouraging them with cases of 'management heroes' and threatening them with cases of 'management failures'.

Meanwhile, the planning school has made many attempts to renew itself. Scenario planning is one of the best known of such attempts. The problem however, lies not in the methods, but in the fallacious assumptions that it perpetuates.

This is the background for an emerging body of thought that sees scenario planning as a tool with potential, not because of its outcome (a plan), but because of its process (planning) – a process that can be very powerful in aligning mental models inside an organization.

By drawing on this literature, and expanding it through the concept of organizational improvisation, it is possible to contribute towards breeding, across a company, the skill to respond to events as they unfold, in real time. In this instance, plans are to organizations what musical scores are to jazz musicians: a prescribed course of action that coordinates members activities and gives them the freedom to conceive their actions while these are taking place. Long range planning (not long range plans) can be used, to paraphrase Wack (1985), to foster the organization's self-confidence, which is of much higher importance than its confidence in its plans, because it is the core characteristic that allows it to thrive even in face of the most turbulent of environments.

Long range planning can thus amount to a powerful tool to 'thrive on chaos'. With a boost from improvisation, long range planning is not dead – it is redeemed.

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Table 1. Thesis and antithesis in management theory and practice.

Thesis / 'Traditional' management	Antithesis / 'Modern' management
Stability	Embracing urgent change
Control	Abandonment of control
Formality	Informality
Separation	'Integration'

Figure 1. A 3 x 5 scenario planning model for action-biased organizations