

Chapter One

Introduction: Organizations and the Future, From Forecasting to Foresight

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Deliberation is irrational in the degree in which an end is so fixed, a passion or interest so absorbing, that the foresight of consequences is warped to include only what furthers execution of its predetermined bias. Deliberation is rational in the degree in which forethought flexibly remakes old aims and habits, institutes perception and love of new ends and acts.

John Dewey (1988, p. 138)

The dominance of retrospect in sensemaking is a major reason why students of sensemaking find forecasting, contingency planning, strategic planning, and other magical probes into the future wasteful and misleading if they are decoupled from reflective action and history.

Karl E. Weick (1995, p. 30)

Several leading social theorists have pointed out that one of the most significant features of modernity is its attitude to time in general and the future in particular. As Giddens (1990, 1991) has repeatedly argued, whereas for pre-modern societies the future is something that just happens, with individuals exercising only a limited influence over it, for modern societies the future is something to be carefully thought about, influenced and, ideally, planned. Nowhere is this modern tendency better manifested than in the field of strategy. Companies are advised to plan meticulously ahead and several techniques have been on offer to that effect.

However, research has shown the limits of the planning-cum-design approach to strategy (Mintzberg, 1994; Mintzberg et al., 1998), as well as the inherent limits to the ability of organizations to forecast, especially discontinuities and radically new developments (Hogarth and Makridakis, 1981; Makridakis, 1990; Makridakis and Hibon, 1979). Popper (1988) famously remarked that, for radically new innovation to occur at all, the future must be *unknowable*, for otherwise an innovation would, in principle, be already known and would have occurred in the present and not in the future. As MacIntyre (1985, p. 93) observed, commenting approvingly on Popper's claim:

any invention, any discovery, which consists essentially in the elaboration of a radically new concept cannot be predicted, for a necessary part of the prediction is the present elaboration of the very concept whose discovery or invention was to take place only in the future. The notion of the prediction of radical conceptual innovation is itself conceptually incoherent.

If we are to take the idea of the future seriously, we must accept that the future is inherently open-ended – it will always surprise us (Rorty, 1989).

While such an agnostic attitude towards the future points out the limits of a purely cognitive attitude to it (namely, it highlights the limits of trying to forecast and plan for what lies ahead), it makes it possible, at the same time, to emphasize an *active* attitude to the future: the latter may not be known *ex ante*, but it is useful to remind ourselves that the future is *created* by human beings and, insofar as this happens, the question of foresightful action – action that aims at influencing what will be – becomes relevant and important to explore. The main questions, therefore, in an organizational context at least, are: what does an active stance towards the future imply for organizations? What is organizational foresight and how can it be developed?

Organizations and the Future

In a celebrated lecture given at the Harvard Business School in 1931, Alfred North Whitehead (1967) posed similar questions. The distinguished philosopher identified *foresight* as the crucial feature of the competent business mind. Anticipating contemporary notions of “sensemaking,” “double-loop learning,” and “scenario planning,” Whitehead perspicuously saw that business organizations need to cultivate foresight in order to cope with the relentless change that modernity generates. Foresight is rooted in deep understanding, he remarked. It marks the ability to see through the apparent confusion, to spot developments before they become trends, to see patterns before they fully emerge, and to grasp the relevant features of social currents that are likely to shape the direction of future events. While Whitehead (and other philosophers, such as Dewey and Popper, who also addressed the question of foresight) had individual actors (entrepreneurs) in mind, his remarks can be extended to organizations as well. But to appreciate what foresight may mean in an organizational context, we need to revisit some key properties of organizations.

It has been suggested that organizing is about reducing equivocality between actors and generating recurrent patterns of behavior over time (Weick, 1979). Another way of putting this is to point out that organizing is a process for institutionalizing cognitive representations, routines and sequences of predictable behavior. Strictly speaking, when a social system is organized it creates the conditions for a standardization of time, whereby events and processes are placed in a patterned chronological order. Take, for example, the case of a university. Classes are scheduled, meetings are planned, office hours are announced, events are put on the calendar – university life has its own patterned rhythms. Chronological time is superimposed

over the subjective time of individuals so that the synchronized carrying out of organizational tasks is possible (see Das, this volume; Hassard, 2002). Or, to use Giddens' (1991) language, experienced (subjective) time is "disembedded" – it is lifted out of its subjective individual context and placed in an abstract (organizational) context (Tsoukas, 2001). Insofar as this happens, an organized social system creates quasi-predictability: its internal life is structured along standardized routines sequenced over time.

That predictability, however, is never complete. Partly this is because of the, ultimately, non-programmable human nature: the "disruptive" student, the "awkward" academic, the "indifferent" administrator conspire to make university life more interesting than it would otherwise have been. Predictability, moreover, is mainly limited by the changes in the external environment. Although this is more difficult to see in a regulated academic environment, it is clearly visible in the case of business organizations operating in the market place. Changes in competition, legislation, customer tastes, and technology are some of the most important changes that make a market-based business environment truly unpredictable in the long term. And if those researchers who have studied "high-velocity" environments (Brown and Eisenhardt, 1998; Ilinitch et al., 1998) are to be believed, such changes are faster and more frequent than ever in the history of capitalism.

The environment is thus a source of uncertainty for business organizations much more so than human behavior within organizations is. The reason for this is not difficult to see. Human behavior in organizations is regularized and normalized to some extent (but never completely) through the authority relationship. The latter standardizes expectations, homogenizes to some degree individual cognitive maps and, through management control systems, elicits certain intended behaviors. The environment, however, is, to a large degree, beyond an organization's control, hence it is not clear how it will change over time. Think of how disruptive technologies have reshaped the semiconductor and the watch industries (Glasmeyer, 1997; Tushman et al., 1997), or how legislation has influenced the activities of accounting firms, in the aftermath of corporate scandals in the USA in 2002. Precisely because of the uncertainty of the environment – that is to say, the uncertainty generated by the interactions of all those factors that make up the business environment over time – strategy making is important: it represents senior managers' wish to steer a distinctive and coherent course of organizational action over time (Mintzberg, 1994, p. 239). But how do organizations do that? How do they deal with the uncertainty of the future? (See Narayanan and Fahey in this volume.)

How organizations deal with the future depends on how they answer the following two questions: first, to what extent is there a knowledge base for anticipating important events? And second, to what extent is there a stock of knowledge on which to draw for undertaking action? How these two questions are answered, gives four different ways organizations attempt to deal with the future (see Figure 1.1). When important events are anticipated (that is, when we have knowledge of forthcoming events) and there is a stock of knowledge as to how to deal with them, organizations use forecasting methods. Seasonal demand, for example, is such an event that may be anticipated, which, say, a beverages company knows how to deal

The extent to which there is a stock of knowledge on which to draw for undertaking action	High	Contingency planning e.g Man-made catastrophes; natural calamities	Forecasting techniques e.g Seasonal demand
	Low	Scenario-based learning e.g Disruptive technologies; abrupt political changes	Analogical reasoning e.g Nation building
		Low	High

The extent to which there is a knowledge base for anticipating important events

Figure 1.1 Organizations and the future: A typology

with. Such events are typically extrapolations from the past and a relevant knowledge base has been developed over time. The future in this case is not qualitatively different from the past; it rather is a pattern that is being repeated over time (Makridakis, 1990).

When, however, certain events may be anticipated, but a knowledge base on how to deal with them does not yet exist, forecasting is of limited utility. In such cases, *analogies* is the method most often used for drawing conclusions. In politics, nation building is a good example. Overthrowing a government and disrupting the political and institutional status quo in a country leads, typically, to a power vacuum, lawlessness and a breakdown of institutions (at least initially). Such events may be anticipated but how to deal with them – how, in other words, to create new institutions, which will command the loyalty of the local people – is far from clear. The case of Iraq is a good case in point. Building institutions, especially democratic ones, which will, at the same time, reflect the values and culture of the indigenous population for post-Saddam Iraq is fraught with huge difficulties and uncertainty. As is seen in the debate about the future of Iraq, drawing analogies with similar situations concerning nation-building in post-War Japan and Germany, as well as more contemporary ones in Bosnia, Kosovo, and Afghanistan, is the most feasible way for policy makers to figure out what to do. The same applies to policy making at large. How to create a functioning market economy and a liberal democracy in former communist countries is far from clear (Elster et al., 1998). Analogies with the development of capitalism in other parts of the world help to derive lessons of what to do.

Cases in which knowledge about the extent to which certain events and processes may be anticipated is limited leads typically to the use of “what if” contingency

planning and scenarios. Forecasting in this case is inadequate, since forecasting relies heavily on the established patterns of past behaviors and/or a good understanding of cause–effect relationships in order to predict what may happen in the future. Some events, however, may be novel or rare, about which there is very little prior knowledge, hence they cannot be predicted. There are, however, certain events, for which, although uncommon, should they occur, there is a stock of knowledge of how to deal with them. For example, a biological terrorist attack on the London underground is an event no policy maker knows will happen, but, if it does, hospitals need to be ready to treat the patients in certain ways. The same applies to some environmental catastrophes. There is now a certain know-how concerning, for example, the treatment of oil leaks in the sea or earthquakes. Policy makers know, broadly, how to respond to such events, although they do not know if and when they will happen.

It is far more difficult for managers and policy makers to respond to events about which (a) they know very little about the probability of their happening, or even cannot imagine what form they will take (think, for example, of the terrorist attack on the Twin Towers – who would have imagined it?), and (b) managers and policy makers have very little knowledge about how to deal with them. Such events represent discontinuities—they are rare events that happen on an ad hoc basis (Mintzberg, 1994, p. 228). Rapid price increases, draconian legislation, dramatic political changes, disruptive technologies, and abrupt shifts in consumer attitudes are discontinuities, whose occurrence and/or timing are difficult to predict and there is no developed knowledge base as to how to deal with them.

Currently, scenario-based organizational learning (SBOL) is the most widely used method to deal with such discontinuities. Notice that the use of scenarios is not an attempt to attach probabilities to a set of events, but a *process* to prepare the organization to see such discontinuities “soon enough . . . and to do so earlier or at least better than anyone else” (Mintzberg, 1994, p. 233; see also van der Heijden et al., 2002, p. 176). SBOL does not attempt to eliminate uncertainty; it rather recognizes its irreducible character and, consequently, the fundamentally unpredictable changes in the environment (van der Heijden, 1996, p. 103). Uncertainty now is not so much a threat to be eliminated as an opportunity to be taken up and given form (Tsoukas, 1999). The burden is on the organization: how clearly and quickly it can see developments in its environment, how sensitive it is to environmental changes, how quickly it can spot differences both within and outside the organization.

SBOL is not so much about the future per se as about sharpening the organizational ability of perceiving in the present. As van der Heijden (1996, p. 118) remarks:

The language of scenarios is about the future, but they should make a difference in what is happening now. If it is successful in embedding different models of the business environment in the consciousness of the organization, it will make the organization more aware of environmental change. Through early conceptualization and effective internal communication scenario planning can make the organization a more skilful observer of its business environment. By seeing change earlier the organization has the potential to become more responsive.

In this view, a foresightful organization is an organization that has sharpened its ability to see, to observe, to perceive what is going on both externally and internally, and to respond accordingly (see Chia, this volume). Organizational awareness is enhanced by the extent to which members of an organization collectively become skilful perceivers of the business environment (see Schwandt and Gorman, this volume). The ability to perceive is sharpened through increasing the individual and organizational capacity to see differences. This is easier in the case of individuals, such as for example the Canadian retailer Sam Steinberg, who was the first to launch his business into shopping centers in the early 1950s in Canada (Mintzberg and Waters, 1982). As Mintzberg (1994, p. 232) points out, incipient discontinuities in the business environment tend to be spotted by individuals who have a deep understanding of an industry and its context (see Fuller et al., this volume).

However, as research in artificial intelligence shows, such a sophisticated form of pattern recognition for discontinuities cannot be formalized and, insofar as this is the case, it cannot be turned into formal organizational systems and routines (Dreyfus, 1997; Penrose, 1994; Searle, 1997). Ansoff's (1984) "weak signals" – the signals that give an organization a clue for discontinuities to come – are potentially infinite. Which ones will turn out to be critical cannot be formally articulated but informally intuited (Mintzberg, 1994, p. 233; see Seidl, this volume), which is why foresight tends to be an important feature of successful entrepreneurs who do not have to articulate and justify their choices and actions to outside audiences.

For an organization to sharpen its collective capacity to perceive is more difficult than for individuals. The reason is that, as argued at the beginning of this chapter, organizing is the process of generating recurrent behaviors, namely a process for reducing differences among individuals through institutionalized cognitive representations (Tsoukas and Chia, 2002, p. 571). This is what gives organized systems predictability and efficiency; but this is also what gives them rigidity and crudeness. Organizing induces abstraction and generalization in social activities for coordinated purposeful action to become possible. Thus, in strictly organizational terms, a "broken photocopier" is an abstract entity, as malfunctioning as any other, and this is what enables a photocopier company to issue repair manuals to its service technicians (Orr, 1996). Organizations, however, are far more than abstract systems: they are activity systems (Blackler, 1995; Spender, 1996). A particular broken photocopier is not an abstract entity that simply features in repair manuals, but a material machine that is used in specific contexts by specific individuals, which will be repaired by specific technicians.

An organization develops its ability to see differences by the extent to which its members do not merely draw on institutionalized cognitive representations and routines ("a broken machine," "if this happens then do that") but improvise and adapt them to local contexts, and undertake situated action that compels organization members to partially revise the cognitive representations they draw upon (see Cunha, this volume). The more sensitive organizational members are to differences between institutionalized representations and routines on the one hand and the local contexts of action on the other, the more perceptive they will be. Just as a good painter brings to our attention something we had seen but not noticed (Bergson,

1946), so an organization becomes perceptive by sharpening its members' attention through helping them spot differences between how things canonically and routinely should be on the one hand and how they actually are and/or might be, on the other. Notice that what is important here is not forecasting what exactly "might be" but using plausible versions of the latter in order to juxtapose them with current representations, routines, and assumptions, and draw out the implications. Maintaining the difference – the tension – between "what should be" and "what is" as well as between "what is" and "what might be" activates the organizational sensory system, just like the human sensory system is activated by difference (Bateson, 1979).

It is in that sense that SBOL creates "memories of the future" (Ingvar, 1985). Through preparing scenarios about different futures, an organization can see plausible changes in the environment and how they will probably impact the organization. Although none of those scenarios may come true, the jolt that is delivered to the organization through them is often strong enough to make the organization challenge its business-as-usual assumptions, its current cognitive models and routines (van der Heijden et al., 2002, p. 176; Wright and Goodwin, 1999).

Van der Heijden et al. (2002, p. 177) describe how a scenario project in an Asian multinational corporation made the company perceive more clearly the changes in its environment and their implications for the organization, as follows:

The "jolt" in this case was that on considering the scenarios, there was a realization within the senior management team that their success formula – which had served them well for 20 years – was unlikely to generate the same success in the future. It did not matter much which scenario one looked at; there were a number of changes in the contextual environment which they had not previously heeded, and which made it unlikely that the organization could continue to succeed in the future without fundamental rethinking taking place in the organization.

In other words, the scenario project re-focused senior managers' attention and made them notice changes that they had probably seen but not noticed – the price of being both an organization in general (reducing differences) and a successful organization (complacency) in particular (Miller, 1990). The process of constructing and reflecting on a scenario set enabled senior managers to "visit" the future ahead of time, thereby creating "memories of the future," and juxtapose those "memories" with current practices. It is the difference between "how things may turn out to be" and "how they currently are" that spurred managers to action. The organization now could not go on as before pretending it did not know: things would have to change.

Notice that, seen this way, foresightful action – action in conditions of limited knowledge concerning both the extent to which future events may be anticipated and how to deal with them – is possible through greater *self-knowledge*. Knowledge about the future and how to handle it may be difficult to obtain, but it is within our power to enhance what we know about ourselves. This should not be confused with the case of self-prediction – self-knowledge is valuable not because it leads to self-prediction but because it sharpens one's ability of perception and, thus, enhances one's capacity for action.

As MacIntyre (1985, pp. 95–6) persuasively argued, self-prediction is impossible because an actor's future actions cannot be predicted by him/her since they depend on the outcomes of decisions as yet unmade by him/her. Self-knowledge is clarity about one's behavioral tendencies. In organizations, it is particularly strengthened when senior managers envisage different ways in which the future may turn out and how the organization would accordingly respond. That kind of knowledge makes the organization more aware of its potentiality and, to the extent this happens, it contributes to organizational self-knowledge.

This is in line with Dewey's understanding of "potentiality." For him potentiality is not teleologically defined – namely defined as the unfolding on an inner essence in the pursuit of a fixed end – but interactively produced (Dewey, 1998, p. 223). Potentialities are known after interactions have occurred. There are, at a given time, unactualized potentialities in an organization because, and in as far as, there are in existence other things with which it has not as yet interacted. Scenarios of the future are such things with which an organization is asked to simulate "interacting" and, by doing so, it obtains a clearer picture of its potentiality.

Dewey (1988, p. 143) has observed that "the object of foresight of consequences is not to predict the future. It is to ascertain the meaning of present activities and to secure, so far as possible, a present activity with a unified meaning." And, later on (1988, pp. 143–4), he continues:

Hence the problem of deliberation is not to calculate future happenings but to appraise present proposed actions. We judge present desires and habits by their tendency to produce certain consequences. . . . Deliberation is not calculation of indeterminate future results. The present, not the future is ours. No shrewdness, no store of information will make it ours. But by constant watchfulness concerning the tendency of acts, by noting disparities between former judgements and actual outcomes, and tracing that part of the disparity that was due to deficiency and excess in disposition, we come to know the meaning of present acts, and to guide them in the light of that meaning.

In the context of this book, Dewey's argument can be seen as a wonderful advocacy of organizational learning. While the distinguished philosopher points out the futility of trying to forecast the future, he is sensitive enough to realize that intelligent (or in his terms, "deliberative") action is one that: (a) springs from knowledge of past experience that reveals current tendencies; and (b) is quick enough to link outcomes to expectations in a continuous manner (see Lipshitz et al., this volume). Dewey seems to have in mind here both retro-knowledge and how important it is in helping actors understand current tendencies *and* fore-knowledge and how significant it is in inducing re-consideration of old aims and habits in light of expected outcomes. Like the executives of the Asian multinational mentioned above, organizations need to keep ascertaining the meaning of their current activities – their active tendencies – for by doing so they keep their activities alive, stop them from becoming routine habits. The meaning of current activities is ascertained by juxtaposing them with activities in the past and, more importantly, with likely activities in the future.

While organizational learning partly relies on retrospective sense making, whereby we obtain a clearer picture of our actions through making sense of them *ex post facto*

(Weick, 1995), it also partly relies on prospective sense making, whereby an organization ascertains its tendency to yield certain results through comparing its current *modus operandi* with the anticipated challenges of the future. In other words, in Dewey's terms, an organization is likely to act foresightfully when it obtains the necessary self-knowledge of its current tendencies. This happens when it systematically links both expectations to outcomes and current practices to anticipated futures. Foresightful action is thus inextricably linked to learning and sense making. Dealing effectively with the future is not so much about getting it right *ex ante* as about preparing for it. Whereas forecasting activities focus on outcomes, organizational learning (especially scenario-based and analogical organizational learning) focuses on process – preparing the organization to spot differences soon enough and act before or better than others.

Foresightfulness as Coping

From the above it follows that an actor is foresightful when it has the propensity to act in a manner that coherently connects past, present and future (Tsoukas and Hatch, 2001; Weick and Roberts, 1993; see chapters by Cunha, and Lipshitz et al. this volume). At an elementary level, this happens when an organization forecasts, for example, demand for next year and adjusts accordingly its policies (e.g. production capability, prices, marketing campaign) in anticipation of the new demand. Forecasting techniques tackle this sort of problems rather well. For this simple form of foresightfulness to be effective, organizations need to have a memory in which past incidents are recorded, and to have deciphered certain relations between the items stored in memory, which enable the organization to anticipate future incidents.

A second, more complex way of relating past, present, and future is for an organization to hypothesize that certain events will take place in the future and work backwards to the present state to decide what it would need to do should these prognostications come true. This, as argued above, can take the form of contingency planning or scenario planning.

An organization also fully develops the pervasive *skill* of foresightfulness when its members systematically treat time as a stream, namely when they forge a coherent relationship between past, present, and future or, between memory, attention, and expectation respectively (Tsoukas and Hatch, 2001; Weick and Roberts, 1993). Through the use of stories, scenario-based organizational learning provides practitioners with flexible means to connect data dispersed in time. Plausible futures need to be narratively connected to current tendencies and past experiences.

The pitfalls for organizations here are threefold. Too heavy an influence by the *past* results in incapacity to see what has changed in the present and what is the likely shape of things to come. This is a problem inherent in formal organization. The latter tends to perceive the world predominantly in terms of its own cognitive categories, which are necessarily derived from past experiences. The world may be changing but the cognitive system underlying formal organization, a system that reflects and is based

on past experiences, changes slowly (see chapters by Durand, and Henderson and Blackman in this volume).

Too much concentration on the *present* task makes the organization unappreciative of all the small changes that are taking place in the wider environment. Van der Heijden (1996, pp. 115–16) mentions a major company in the mainframe computer industry in the 1980s that found it nearly impossible to notice the huge changes that were taking place in its industry. They were very capable of forecasting demand for computing power (tellingly, expressed in “millions of instructions per second” – a key term in the mainframe business) but unable to work out the *form* the market was slowly taking before their own eyes (i.e. the emergence of distributed computing).

Finally, too tight a focus on the *future* per se risks making the organization a victim of fashions. As Mintzberg (1994) has pointed out, moving in and out of diverse markets, following the fashion of the day, without properly considering the organizational capabilities a firm has historically developed, may lead a company to reckless decisions. Diversifying into new businesses should not be a mere exercise in linguistic re-description (“reinvent your business”) but a balanced consideration of a firm’s capabilities. “Knowing thyself” is as important as “dare to be different.”

Foresightfulness becomes an *organizational skill* when future-oriented thinking ceases to be a specialized activity undertaken by experts and/or senior managers, in which they engage from time to time in order to deal with something called “the future,” but acquires the status of expertise that is widely distributed throughout the organization and is spontaneously put to action. Forecasting techniques, simulation methods, even scenario planning, all are designed to be used or engaged in by experts, or senior managers, who focus explicitly on the future and treat it as if it was a separate entity. While this is important, for all the reasons mentioned above, it is even more important that foresightfulness becomes an embedded organizational capability, a set of actions that do not spring so much from explicit reasoning about “the future” but from an “immediate coping” (Varela, 1999, p. 5) with what is confronting the organization. Just like “a wise (or virtuous) person is one who knows what is good and spontaneously does it” (Varela, 1999, p. 4), so a foresightful organization is one whose members spontaneously forge connections between past, present, and future. In other words, organizational foresightfulness is fully developed when it becomes an institutionalized capacity of unobtrusively responding to an organization’s circumstances so that the organization may get around in the world.

The notion of *coping*, drawn from Heideggerian philosophy (see Dreyfus, 1991; Wrathall and Malpas, 2000), implies that dealing with the future is a pervasive, *background* organizational skill, not a focal act. In executing its primary task – be it treating patients, serving customers, teaching students, or whatever – an organization acts necessarily in the present. The future is not some entity to engage with in the same way, say, a bank engages with a customer. A bank sells its services in the present and organizes itself to be able to carry out this task in the future as effectively as it can. To be able, however, to *continue* selling services to customers, it needs to be concerned not just with the present but with the future as well. A foresightful bank is *subsidiarily* aware of the past and the future while focally engaging in the present (Tsoukas, 2003). It is aware of the fact that it ought to be able to continue being

attractive to customers in the future, while serving them in the present on the basis of abilities it has acquired in the past. While engaging in its primary task, it is unobtrusively adjusting its service to carry on drawing in customers in the future (McSweeney, 2000).

An organization develops its subsidiary awareness of the future by developing its *distentive* capability – the ability to narratively link past, present, and future. *Distentio* is an Augustinian idea offered by Ricoeur (1984) to describe the stretching of consciousness through simultaneous attention to memory and expectation. When memory and expectation are engaged, they enlarge the consciousness of the present – know-how is brought forward from the past and extrapolations to the future are made. Narratives are a means for letting us experience time by bringing memory and expectation to bear on the present. Narratives enable us to appreciate the temporal dimension of human experience and think in “time-streams” (Neustadt and May, 1986).

An excellent example of such a highly developed *distentive* capability – the ability to be subsidiarily aware of the past and the future – is shown by George Marshall, the Chief of Staff of the US Army during World War II. In the spring of 1943, in the midst of the War, Marshall called John Hilldring to his office to discuss how Hilldring, a two-star general, should go about organizing military governments for countries that had been liberated or conquered by the Allies. Hilldring reported what Marshall said to him as follows (cited in Neustadt and May, 1986, pp. 247–8):

I’m turning over to you a sacred trust and I want you to bear that in mind every day and every hour you preside over this military government and civil affairs venture. Our people sometimes say that soldiers are stupid. I must admit at times we are. Sometimes our people think we are extravagant with the public money, that we squander it, spend it recklessly. I don’t agree that we do. We are in a business where it’s difficult always to administer your affairs as a businessman can administer his affairs in a company, and good judgement sometimes requires us to build a tank that turns out not to be what we want, and we scrap that and build another one . . . But even though people say we are extravagant, that in itself isn’t too disastrous . . .

But we have a great asset and that is that our people, our countrymen, do not distrust us and do not fear us. Our countrymen, our fellow citizens, are not afraid of us. They don’t harbor any ideas that we intend to alter the government of the country or the nature of this government in any way. This is a sacred trust that I turn over to you today . . . I don’t want you to do anything, and I don’t want to permit the enormous corps of military governors that you are in the process of training and that you’re going to dispatch all over the world, to damage this high regard in which the professional soldiers in the Army are held by our people, and it could happen, it could happen, Hilldring, if you don’t understand what you are about.

This is a remarkable speech for it skillfully weaves together past, present, and future, and shows how a policy maker may indeed be foresightful. Marshall, remember, was busy fighting a terrible war and, yet, he was capable of seeing far ahead to ponder the post-war situation. He looked ahead with a clear awareness of the past. He showed a deep understanding of US military–civilian relations (the criticism of, but also the

crucial trust of, the US armed forces by the people) and, implicitly, of how the same relations had had a different history in other counties. He urged Hilldring to make day-to-day decisions while thinking of their long-term consequences. Marshall coped with the future spontaneously: the situation – advising a subordinate – brought forth the action; the future did not become a separate object of analysis but was spontaneously brought to the present and was coherently linked to the past. Foresightfulness is shown here to be not a specialized activity, which is to be occasionally engaged in, but a pervasive mode of being. As Neustadt and May (1986, p. 248) aptly remark: “By looking back, Marshall looked ahead, identifying what was worthwhile to preserve from the past and carry into the future. By looking around, at the present, he identified what could stand in the way, what had potential to cause undesired changes of direction. Seeing something he had power to reduce, if not remove, he tried to do so.”

Overview of the Book

The chapters in this book are derived from the *First International Conference on Probing the Future: Developing Organizational Foresight in the Knowledge Economy*, which was organized by the Graduate School of Business, University of Strathclyde, in July 2002, in Glasgow, UK. The conference sought to provide a forum in which important questions, conceptual and empirical, concerning organizational foresight could be debated in a scholarly fashion.

Several authors explore ways in which organizations make sense of their environments and of themselves in order to cope with the uncertainty of the future. Two distinguished academics with significant corporate experience as well, Spyros Makridakis and Kees van der Heijden, long-time students of how organizations manage the future, have contributed, especially for this book, a foreword and an afterword respectively. The book is structured in three parts, each of which addresses a particular question. Part I (“Making Sense of Organizational Foresight”) addresses the question: “How should ‘organizational foresight’ be conceptualized?” Part II (“Foresight and Organizational Learning”) includes chapters that deal with the question: “How do organizations make sense of themselves and their environments, and, accordingly, how do they organize their learning in order to cope with the future?” The authors in Part III (“Developing Foresightful Organizations”) address the question: “How can organizations become foresightful?”

In Part I Robert Chia (“Re-educating Attention: What is Foresight and How is it Cultivated?”), using Whitehead’s definition of foresight as the philosophic power of understanding the complex flux of the varieties of human societies, compares how we might cultivate foresight with how we are inclined to cultivate foresight. He draws the reader’s consideration towards a number of ways in which our attention needs to be re-educated. We forget, he says, that we have a partial perspective of a system made up of an infinite number of futures and so tend to see the future through a single, or at most, a small number of perspectives. Tacitly, we always pay attention to one aspect of knowledge to the detriment of another, yet we rarely use our ability to reflect on the

gestalt bias of our knowing in our hurry to know. Given these tendencies, the author advocates re-educating attention towards micro level developments in the environment and the periphery of our own consciousness to avoid premature closure around a single future. Visionaries are seen as being particularly in tune with the (unconscious) processes in societies underlying how the future unfolds, rather than possessing an uncanny ability to forecast the future. Perspectivism is thus held in tension with pragmatism, in a way which addresses how our tendency to control the future makes us less open to as yet unseen combinations.

V. K. Narayanan and Liam Fahey (“Invention and Navigation as Contrasting Metaphors of the Pathways to the Future”) argue that different firms tend to conceive of the future in different ways – as invention and as navigation – and claim that these views are incommensurable. A company that faces the multiple uncertainties of new science, technological overlap, and unknown customer adoption rates of radically new products, tends to operate with the “invention” metaphor of the future. The future emerges from a dynamic marketplace. In contrast, an organization working in an established field, operates with customers directing extensions of the product line, making “navigation” a more appropriate metaphor of the future. The authors state that the assumptions underpinning these realities are incommensurable and, consequently, there is no single, or correct, way of seeing the future. Organizations need to consider how different communities, time lines, and boundaries make invention or navigation a more suitable way of thinking about the future. Equally, whereas “navigation” has a known vocabulary, which can be built upon in a linear fashion, “invention” involves the creation of a new vocabulary and the emergence of new meanings.

T. K. Das (“Strategy and Time: Really Recognizing the Future”) explores the notion that clock-time may be too simple a conceptualization of time for strategy making. The author advocates that a more sophisticated concept of time be adopted, since time is conceptualized differently by different individuals, but these differences are infrequently considered when making strategy. The author explores the implications of treating time as psychological and subjective. This stance implies the need to focus on how time affects individual and organizational behavior, as opposed to how individuals and organizations behave in time. The author highlights how different conceptualizations of time influence strategic planning in the form of the development of visions, plans, milestones, and the approach to strategic change.

In Part II, David R. Schwandt and Margaret Gorman (“Foresight or Foreseeing: A Social Action Explanation of Complex Collective Knowing”) consider the generation of foresight as being particularly complex when operating within a collective in which knowledge is unevenly distributed. Social action is seen as taking place against a backdrop of knowledge flow moderated by organizational patterns, reflection, organizational goals serving as reference points, structures created by roles, and sense-making through stories and language. As social action occurs through these forms of media, the outcome is reasonable or inquisitive, goal referencing either routine or experimental, the treatment of new information non-equivocal or equivocal and structuring is either closed or open. A case study serves to illustrate the explanatory power of the framework and considers four pathologies of foreseeing. First, new

information is brought in to the collective by new team members, meaning there is too little shared past to make sense of this new information. Second, there is too little reflection, as reflection is considered to be a waste of time, so assumptions are not challenged. Third, the design of the team leads to a form of structuring, which inhibits experimentation. Finally, role confusion ensues when expectations about what it means to be foresightful are not explicit. This chapter conceives of foresight as collective knowledge production, and improvements in foresight as a function of understanding how the dynamics of knowledge production are altered by context.

Raanan Lipshitz, Neta Ron and Micha Popper (“Retrospective Sensemaking and Foresight: Studying the Past to Prepare for the Future”) draw on Weick’s theory of sensemaking to analyze a case of team learning, which is atypical from the standpoint of Weick’s theory, in that accuracy rather than plausibility is the focus of organizational operations. Foresight is shown to be a function of learning in a situation where the future is different from the past, even if not radically so. Each one of Weick’s seven defining characteristics of sensemaking are considered in light of the case and are all found to be relevant. In particular, the usefulness of critical thinking within a group, directed at an individual’s performance within a highly competitive organizational culture and setting, is analyzed. An important connection is made between the past, in the form of retrospective sensemaking, and the future, in the form of improvisation, despite the future being uncertain because it is different from the past. It is proposed that the ability to improvise under conditions of uncertainty is enhanced by the richness and complexity of what is already known, which, in turn, can be increased through retrospective sense making created during a learning exercise. Thus the authors create a relationship between memory and improvisation and, hence, between the past and future, suggesting foresightfulness is, at least in part, a function of this relationship.

Rodolphe Durand (“Can Illusion of Control Destroy a Firm’s Competence? The Case of Forecasting Ability”) shows that if forecasting accuracy is considered as a competence, then firms that overestimate have a better performance than firms that underestimate. This effect is moderated by how firms rate themselves against others, in terms of critical success factors for the industry. Having a high opinion of oneself abets performance whereas a neutral view enhances performance. The chapter suggests that the relationship between forecasting accuracy and performance is complex; foresight involves more than the ability to accurately forecast macro phenomena, such as industry growth. Equally, the chapter suggests that the notion of competence is far more complex than a single ability (in this case to forecast the future).

In Part III, Miguel Pina E. Cunha (“Time Traveling: Organizational Foresight as Temporal Reflexivity”) proposes that the ability to be foresightful involves being able to simultaneously consider and link the past, present, and future and, thus, to travel through time. Rather than dwell on these views as epistemologically incommensurable, a more pragmatic approach is taken. All possible combinations of the past, present, and future are considered and discussed in terms of the actual form they take in organizations. The framework shows how action-based managers transcend the boundaries between prediction and invention. There are advantages as well as dangers to time traveling. The past provides valuable experience and learning in the present as much as it provides availability bias. The future can be dream-like, but is

achieved from a base provided by the reality of the present. In summary, the chapter highlights the need for a complicated understanding of foresight through proactive temporal coordination, articulation, and reflexivity. It provides both a theoretical and practical route into such an understanding.

David Seidl (“The Concept of ‘Weak Signals’ Revisited: A Re-description From a Constructivist Perspective”) considers organizational foresight in terms of the weak signals that need to be noticed if an organization is to become aware of, and act upon, strategic discontinuities. Rather than view weak signals in Ansoff’s sense of being “out there” in the environment, this chapter treats them as social constructions. As such, organizations need to adapt to their own constructions and, therefore, adapt to themselves. Weak signals are seen as social constructions in the sense of context being an important factor in defining how a weak signal is interpreted, whether it is believed, and how it relates to other weak signals. This socially constructivist interpretation of weak signals is extended even further by the author to incorporate autopoiesis, whereby weak signals become part of a closed and self-referential system. Connecting this stance to foresight, the chapter argues that organizations need to pay attention to their communication structures as they affect the creation and interaction of (socially constructed) weak signals. Equally, although the environment cannot be foreseen, it might be possible to foresee likely constructions of the environment, given communication structures direct what communication processes come about and hence what constructions are created.

Ted Fuller, Paul Argyle, and Paul Moran (“Meta-rules for Entrepreneurial foresight”) view foresight through the eyes of the owner of a new economy company operating in a dynamic environment. Using complexity theory, bifurcation points in the history of the firm are seen as thresholds, which occur when the owner’s personal identity and motives combine with changes in the environment to trigger and energize organizational change. Anticipation is seen as trying to turn weak signals into opportunities, the restructuring of personal identity and behavior into new organizing domains, and a high quality of personal reflexivity. That said, above all, foresight takes the form of the entrepreneur’s overriding desire to be successful resulting in dramatic changes in direction in order to remain aligned to the environment.

Unlike Seidl, Deborah Blackman and Steven Henderson (“Autopoietic Limitations of Probing the Future”) critique the metaphorical application of “autopoiesis” to social systems. They argue that the managerial adoption of an autopoietic perspective might be damaging to an organization’s ability to probe the future, or rather the autopoietic tendencies within a firm are likely to create dysfunctional organizational dynamics. The problems of a retail firm, which after many years of success went through a period of difficulty, are seen in terms of systemic change demanding non-autopoietic and hence non-self referential change. The years of success have however turned the organization into an autopoietic system, meaning that interaction of the organization with the system is always in terms of the organization’s reference system. As such foresight becomes difficult, if not impossible. The authors argue that organizations can be so tightly coupled to their past and present that they cannot alter their dynamics to cope with a future that requires them to think in a way that does not refer to themselves.

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