

The Psychology of Why Organizations Can Be Slow to Adapt and Change

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Bias in human decision making can make organizations slow to change, but what can be done about it?

Companies that were Slow to Change

Consider the example of Xerox, who in the early 1970s held a *95 per cent market share* of the global copier industry. Their target customers were large corporations and their concept of customer value was that of centrally controlled photocopying. Xerox focused on manufacturing and leasing complex high-speed photocopiers, using its own manufacturing and sales service force to provide a complete package to those who leased its machines. Then along came Canon—who competed head-to-head for Xerox's large corporate customer-base. Why didn't Xerox appreciate the nature of the threat and respond earlier than it did to Canon's attack?

Xerox had a very strong business idea, but the very strength and invulnerability of the business idea was its undoing. Xerox was shackled with its own sales force and its leasing policy to its big machines. It could not afford to offer smaller machines to its customer base. It thought that its customers, heads of copying in large corporations, would protect both themselves *and* Xerox and retain centralised copying, since it was in both their customers' and Xerox's interests. Other parties trying the same business idea found that it could not be copied. However, individuals working in those large corporations increasingly wanted the control that the flexible and instant access to copying facilities of Canon offered.

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Similarly, Motorola were unprepared for Nokia's entry into the US mobile phone market—as a first point of entry, Nokia made phones for Radio Shack and then sold its phones with a well-known carrier brand stamped on them. Nokia's basic strategy was to design phones that were user-friendly and modularised—such that even though cellular systems differ from country to country the basic phone was almost identical, no matter where in the world it was sold. Enormous sales volumes of almost identical products allowed Nokia to reduce manufacturing overheads and unit costs.

Both Xerox and Motorola felt invulnerable and then the worst happened: a competitor came from nowhere and established a stronghold, based on evolving customer value. Both Xerox and Motorola seem to have been unable to anticipate what would happen. Why was this? The reason is that all these companies and many, many, others are the prisoners of their own success. Ways of operating can become ingrained over the years.

Over-Reliance on Routines: Success Formulae and Managerial Thinking

Consider Foster Brothers—a casual menswear retailer—who owned shops on most major high streets in the United Kingdom in the 1970s. One year, sales began to decline and they responded by re-applying the traditional success formula of cost-effective procurement of finished goods, sourcing cheaper supplies of menswear made to Foster Brothers' own designs. Over the next few years, this recipe was repeatedly re-applied and the well-made items of menswear were retailed at very competitive prices in the shops. Foster Brothers maintained its margins on the basis of its excellent procurement process.

However, this success was to prove temporary. Shortly afterwards, Foster Brothers went out of business. The reasons for this failure can be traced back to the inertia evident in their strategic thinking. Men in the UK had become fashion conscious and preferred to shop at Hepworths and other emerging menswear retailers who were more in tune with men's newly acquired consciousness and style. In short, Foster Brothers' success formula—cost-effective procurement of finished goods from around the globe—was no longer in alignment with customer value. An aspect of the business environment had changed in a way that Foster Brothers seemed unable to appreciate.

Many organizations follow managerial recipes in a similar way to Foster Brothers, allowing recipes to become routines that are guides to thinking and acting. As writers on strategic management have argued, to survive, an organization's strategic decision-making must retain or improve

the organization's alignment with the external world. In other words, recipes should not be routinely followed and should be changed altogether when appropriate. However, strategic inertia—defined as the degree of commitment to current strategy—grows over time, as current ways of operating become increasingly embedded in an organization. Commitment to the status quo will tend to escalate in a smooth, undisturbed fashion, with incremental adjustments or improvements to current strategy over time. Nevertheless, since no strategic choice is perfect, 'organizational stress' will also develop, as the alignment between strategy and environment is perceived, belatedly, to have deteriorated. Firms give little conscious attention to strategic choice, as long as organizational performance is perceived to be satisfactory, that is, when stress is low.

Typically, we are likely to seek confirming evidence that demonstrates to ourselves that the currently-favoured strategy is working effectively. The following section illustrates this.

Confirmation and hindsight biases in judgement

Imagine that you are a waiter in a busy restaurant and, because you cannot give good service to all the people who sit at the tables that you serve, you use your judgment to identify those people who will leave good tips or poor tips. You have developed this ability well, and those people whom you predict will tip generously mostly do. Also, those that you predict will not tip mostly do not. Is your judgment accurate?

It would seem that it is. However, note that the waiter will give good service to those he thinks will tip well and will ignore those whom he thinks will not tip. If the quality of service, in itself, has an effect on whether or not a customer tips, then the waiter's actions will, by themselves, determine the tipping outcome.

There is a strong element of a self-fulfilling prophecy here. The only true way that the waiter can test out the quality of his judgements is to give *poor* service to good tip prospects and *excellent* service to poor tip prospects. Clearly, his original judgements could be less valid than he assumes, as he has not accurately tested his judgment. In short, people tend to think of only positive tests of their viewpoint—such that the viewpoint cannot be falsified—a bias toward confirmation, rather than rejection, of our decision.

The decision to hire new employees is analogous to the waiter's situation. Most of us feel that we are able to interview fairly and we feel comfortable with our hiring decisions—confident that we can identify appropriate employees. But, we seldom hear what happened to the candidates that we declined. Unless we gain accurate feedback on the interviewees that we turned down, we do not know if our decisions were

sound. It follows that the only true test of our interviewing capabilities is to hire those that we feel we should reject. But few of us put our judgment to such a rigorous test.

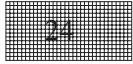
In short, as strategic decision-makers, we are likely to seek confirming evidence that our favoured strategy is still working well and that it is aligned with the business environment. Inevitably, we do not place ourselves in situations where we can test the quality of our judgment. We seek only that information that will confirm the quality of our predictions. For example, we tend to read adverts about the car that we have just purchased rather than those describing the virtues of the other cars. This may seem relatively harmless; unfortunately, the picture is bleaker. In one famous study [1], MBA students were asked to predict, in the early 1970s, possible outcomes of President Nixon's forthcoming trip to China. Would a named treaty be signed? Would the President visit a named city? Many questions of this sort were posed. The students wrote down their predictions, putting a confidence figure next to each prediction. Two weeks then elapsed and the students returned to the MBA classroom. Unexpectedly, the same students were asked to recall their confidence estimates of each prediction. Given that the events had been reported widely in the press, students knew which of their predictions had or had not happened.

The findings were instructive. If an event had occurred, the students tended to recollect that they had predicted it with a high degree of confidence. If a named event had not occurred, the students either claimed that they had not predicted it, or that they had placed a low degree of confidence on the poor prediction. In short, the students evidenced what has been termed the 'I-knew-it-all-along' effect or the 'hindsight bias'. In general, then, it would seem that we don't learn from experience because we believe that experience has little to teach us: our recollections of our judgmental predictions confirm these to have been accurate! We believe that our judgments, predictions and choices are well made, but this confidence may be misplaced.

In conclusion, individuals follow cognitive habits, seeing challenging situations through a singular frame of reference that makes assumptions about the nature of problems or opportunities that arise. Additionally, we feel that our judgment is good. Furthermore, this perception is reinforced by both the confirmation bias and the hindsight bias that underpin an inappropriate confidence in our judgment. Such over-confidence will lead to inappropriate 'best guess' thinking about the future—as illustrated in our earlier case studies of strategic inertia or business-as-usual thinking.

Escalation of commitment

It is common that when decisions start to go wrong, or strategy begins to



fail, the decision-maker commits further resources to turn the situation around [2]. At Coca-Cola, the heated disputes and bruising work that had gone into the creation and launch of New Coke were hard for their executives to write-off. The re-launch of old-formula Coke only came after intense efforts to make New Coke a success failed. This effort persisted in the face of ridicule—the executives were characterised in the media as vandals who wanted to deface a national treasure. Indeed, Roger Enrico, Pepsi's president, held a press conference to ask if his rival planned to start a 'Cola-of-the-month Club', querying if the nation's grocery shelves would have enough space for 'New Coke, Coke Classic, new Diet Coke, old Diet Coke, new caffeine-free Coke, old caffeine-free Coke...' [3]. The basis of such inappropriate escalation of commitment in the face of compelling evidence to 'call it quits' has, once again, been demonstrated in the psychologist's laboratory.

The high responsibility condition

Typically, the experiment runs as follows: individual respondents are asked to allocate research and development funds to one of two operating divisions of the company. The company and the decision-context are described in detail and the respondent is then told that, after a year, the investment had either proved successful or unsuccessful and that they now faced a second decision concerning a second allocation of funds. This first group was known as the 'high responsibility' condition, as they have a personal commitment to the original decisions taken. Individuals in a second group were told that another financial officer of the firm had made the earlier decision and that it had been either successful or unsuccessful. They were then asked to consider making a second allocation of funds to the division. This second group was labelled the 'low responsibility' condition, as they had no personal commitment to the original decisions. The results proved illuminating:

- When the outcome of the earlier decision proved to be an unsuccessful investment, the high responsibility respondents allocated *significantly more funds* to the original division than the low-responsibility ones.
- By contrast, the allocation decisions made by both groups of respondents were roughly the same, if the earlier decision had produced a successful outcome.

Common factors leading to inappropriate commitment

As W.C. Fields once said: '*If at first you don't succeed, try, try, again. Then quit. No use being a damn fool about it*'.

What are the common elements of decisions that result in inappropriate escalation of commitment? First, there is a second decision

to make, resulting from a previously unsuccessful decision. Second, there is a degree of personal responsibility for the 'subsequences' (subsequent consequences) of the important, prior decision. In such situations, before committing funds to the second of what may be a series of linked decisions, the following results are often observed.

- Managers pay more attention to information that confirms the validity of their earlier decision—as the confirmation bias, discussed earlier, demonstrated.
- Since the second decision is made in a situation that is negatively framed, individuals will tend to select risk-seeking options that, potentially, can 'recover' what has become an adverse situation.
- A blame culture within an organization will either magnify the likelihood that failure will be concealed, or it will ensure that additional effort is made in an attempt to turn the situation around.

In many situations, individuals who hold themselves responsible for a poor initial decision throw good money after bad, consistently failing to recognise that the time and expenses already invested are sunk costs. The decision-maker, in the face of negative feedback about the consequences of his earlier decision, feels the need to affirm the wisdom of it by further commitment of resources in an attempt to 'justify' the initial decision or provide further opportunities for it to be proven correct. Negative feedback is rationalised by treating the information as ephemeral rather than indicating key points about the quality of the prior decision.

Studies have shown that the tendency of high-responsibility individuals to escalate commitment was particularly pronounced where there was some way to develop an explanation for the initial failure, such that the failure was viewed as unpredictable and unrelated to the decision-maker's action (for example, the economy suffered a severe setback). One study revealed that groups who made an initial collective decision that proved unsuccessful, then allocated significantly more funds to escalating their commitment to the decision than did groups who inherited the initial decision. Clearly, the social processes causing escalation of commitment will tend to magnify adherence toward a current, but failing, strategy [4].

Bolstering, Procrastination and Buck Passing

When the risks involved in continuing to follow a particular course of action are, perhaps belatedly, seen to be high, and the risks of changing to an alternative are also seen to be high, then the psychological stress of dealing with the decision dilemma rises. Intense conflicts are likely to

arise whenever a person has to make an important decision. Such conflicts become acute as the decision-maker becomes aware of the risk of suffering serious losses from whatever course of action is selected; for example, continuing with business-as-usual or changing strategy.

Decisional conflicts refer to simultaneous opposing tendencies within the individual, to accept or reject a given course of action. The most prominent symptoms of such conflicts are hesitation, vacillation, feelings of uncertainty and signs of acute emotional stress whenever the decision comes within the focus of attention.

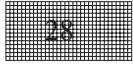
The conflict theory of decision-making [5] describes a number of basic ways in which decision-makers cope with the threats or opportunities that are often part of crucial decisions. Often, decision-makers defensively avoid the stress of difficult decision dilemmas by adopting coping patterns in their decision behaviour. There are three major coping patterns. *Procrastination* entails delaying the decision, for example waiting for a long time before thinking about the dilemma. *Shifting responsibility* (or buck passing) entails passing the ultimate responsibility for the decision to other individuals or groups. *Bolstering* involves uncritically boosting the advantages of the 'least worse' option of those options that are available—often the status quo or business-as-usual option. Escalation of commitment is characteristic of bolstering. All three coping patterns lower the stress inherent in facing up to a difficult decision. For now, we focus on how decision-makers defensively avoid the stress of difficult decision dilemmas by procrastination, shifting responsibility and bolstering.

Regardless of which of these three defensive avoidance coping patterns are adopted, either singly or in combination, there are two common outcomes—incomplete search for, and evaluation of, incoming information that would aid choice, and lack of contingency planning in the event that the course of action followed begins to fail badly.

Example of a management team facing a decision dilemma

In one study we were involved with recently, we interviewed nine individuals on the senior management team of a major corporation which was facing just such a crucial decision dilemma [6]. The current strategic direction was failing, and all alternative strategies were fraught with risk. Essentially, the company had strong core competencies that underpinned its older business idea, but this idea was failing against a changing world. Quotations from our complete interview data—collected from the top management team—were categorised under Conflict Theory's headings.

Our analysis illustrated that the risks were perceived to be serious if the company *didn't* change its current, failing, strategy and, also, that



the risks were seen to be serious if the company *did* change the strategy. There was strong evidence that the senior management team attempted to shift responsibility for its adherence to the current strategy to the top-level board of directors, i.e., 'buck passing'. Additionally, the management team also evidenced delay and procrastination—whilst bolstering the current failing strategy

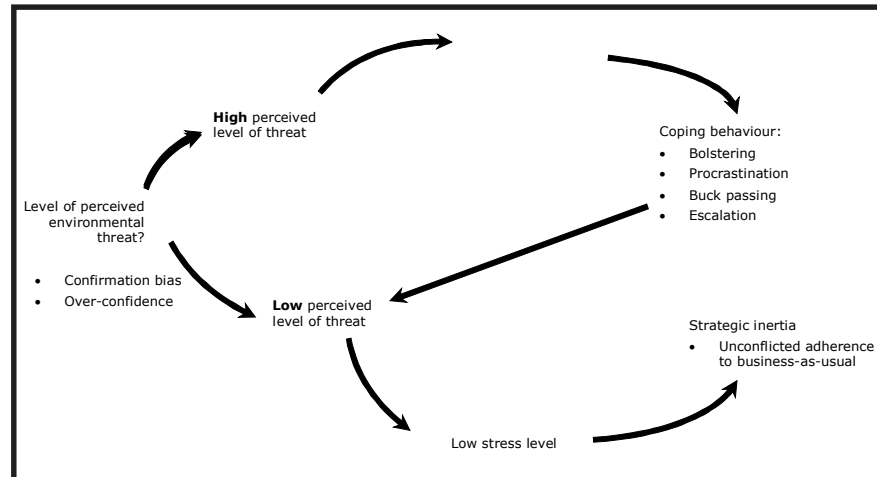
Thinking Flaws: A Synthesis

Figure 1 presents our own view of a systemic relationship between the findings of this section [7]. In this diagram, we attempt to integrate the results of the psychological research with current knowledge of cognitive inertia in strategic decision-making. In the diagram, it is shown that:

- The resting state of the system is that of a low perceived level of environmental threat, leading to low stress level, which leads to strategic inertia. Unconflicted adherence to a business-as-usual strategy characterises this resting state.
- Nevertheless, the environment is monitored for environmental threats but this monitoring is attenuated due to confirmation bias and overconfidence. If the environmental threat is so severe, it *is* perceived as threatening unconflicted adherence to the current strategy, then the stress level rises and, soon afterwards, coping patterns such as bolstering, procrastination and buck passing are evidenced.
- Bolstering, characterised by escalation of commitment to the current strategy, can lead to a feeling of perceived organizational invulnerability to events in the business environment. Such coping patterns lower the perceived level of environmental threat, which results in a lowered stress level and, hence, to strategic inertia.

In short, all roads lead to inertia in strategic thinking. The underlying business problem that gives rise to the initial feeling of threat is often not addressed in managerial thinking – since psychological coping patterns act, subconsciously, to reduce this threat. Over time, in the real world – rather than in the mind of the manager – the gap between the organization's strategic positioning and the actual business environment may widen. Only when the gap is too big to be dealt with by coping patterns will stark reality be faced. At this point, it may be too late for the organization to take action to become more closely aligned to the changed business environment.

Figure 1:



Organizational Thinking

In this section, we turn to the organizational context within which managers work. Do organizational structures and characteristics have an effect, positive or negative, on the prevalence of individual thinking flaws that lead to inertia in strategic thinking? Would a thoughtful manager's attempts to be more vigilant in his decision-making be helped or hindered by the organizational context?

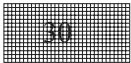
Communication difficulties

A well-known story that addresses this issue is the Abilene paradox [8]. Here, the author, Jerry Harvey, sketches out a scene in a house on a Sunday afternoon in Coleman, Texas. In the scene, the ambient temperature is hot, at 104°, and the wind is blowing fine-grained topsoil. However, the Sunday afternoon is tolerable with a cooling fan, cold lemonade and a game of dominoes to play. Dominoes is a slow, non-physical, unhurried game.

Suddenly, Jerry's father-in-law says, 'Let's drive to Abilene and have dinner at the cafeteria'. Jerry thinks, 'Why go to Abilene? Fifty-three miles in a dust storm and with this heat, in a non-air-conditioned Buick'. But his wife says 'Sounds like a great idea, let's do it. How about you, Jerry?' Jerry replies 'Sounds good to me, I just hope your mother-in-law wants to go too.' 'Of course I want to go', she says, 'I haven't been to Abilene in a long time.'

So, the family went to Abilene in the heat, dust and a fine layer of perspiration, where they ate an awful meal. On completing the long round trip, each of the family argues that they would not have gone if the others

had not wanted to go. Even the father-in-law claims, 'I never wanted to go. I just thought you might be bored. I would have preferred to play dominoes but you visit so seldom that I wanted to make sure you enjoyed the time with us.'



Jerry Harvey argues that the Abilene Paradox is similar to many organizational paradoxes: choices are validated even though all the individuals concerned have reservations—they just aren't voiced. Individuals avoid conflict because conflict carries risk. In organizational life, confronting the issues and the individuals who hold opinions that you disagree with, carries the risk of loss of face or even one's job. So, if someone senior to you in the organization suggests that a 'trip to Abilene' is the favoured choice, then you are likely to vote positively for the choice. Interestingly, the senior's suggestion of the trip may not be their own preference believing, perhaps wrongly, that it is a choice that you would favour, if you were asked and were assertive enough. The key issue is the lack of honesty in communicating thoughts and feelings.

The issues that face an organization are usually more serious. Choice of strategic direction is one such area of contention. What happens when individuals do begin to voice opposition? The behavioural processes invoked have been termed 'groupthink'.

Group-think in organizations

The tendency of management teams to concur is an illustration of groupthink [9]. People with homogeneous backgrounds often constitute management teams: for example, university degree holders, middle-class people and nationals of the country where the organization is based. Also, many will have families, mortgages and career paths, so they may be sensitive to the fact that to speak out may put one's job at risk. In high-consequence situations, such as major investment decisions or discussions of strategic direction, the likelihood of dissenting voices being raised after the most senior person has stated their opinion is small. The likelihood of continuing dissent (at least overtly) is even smaller. Irvin Janis has remarked:

'In my earlier research with ordinary citizens, I had been impressed by the effects—both unfavourable and favourable—of the social pressures that develop in cohesive groups... Members tend to evolve informal objectives to reserve friendly intergroup relations, and this becomes part of the hidden agenda at meetings... Ordinary citizens become more concerned with retaining the approval of fellow members of their work group than with coming up with good solutions to the task in hand.'

Essentially, groupthink is the suppression by the group (or management team) of ideas that are critical of the direction in which the

group is moving. It is reflected in a tendency to concur with the position and views that are perceived as favoured by the group. Such cohesive groups tend to develop rationalisations for the invulnerability of the group's decision or strategy, and inhibit the expression of critical ideas by dissenting members of the management team. These pitfalls are likely to result in an incomplete survey of alternative courses of action or choices, resulting in a failure to examine the risks of preferred decisions.

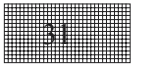
One recent study analysed the decision to launch the space shuttle, Challenger, on 28th January 1986 [10]. The outcome of that flight, the death of all seven crewmembers within minutes of launch, focused attention on the process leading to the decision to launch. The transcripts of the Presidential Commission report on the disaster, highlighted positive and negative instances of the examples, causes and consequences of groupthink. During the 24 hours before launch, the ratio of positive to negative items increased significantly. Level III NASA management faced increasing difficulties in maintaining their flight schedule, and this was expressed as direct pressure on the dissenters who wanted to delay the flight (the engineers) and *mindguarding*.

Mindguarding refers to the removal of doubts and uncertainties in communications to others. In this instance, the Level III NASA management told the engineers that they would report their concerns to the Level II NASA management, but they failed to do so adequately.

Groupthink results in a failure to examine thoroughly the risks of the preferred strategy and, consequently, a failure to work out contingency plans if the preferred course of action fails. High levels of both group cohesiveness and external threats are characteristic of groupthink. In the case of the Challenger launch decision, a non-launch would have threatened public support for what had been promoted as a standard, almost routine operation.

Clearly, the processes underpinning the Abilene Paradox and the results of Groupthink will tend to result in a self-selected group of individuals who will concur with one another. This concurrence could be shown in their commitment to a choice of strategic direction. In the case of Abilene, the concurrence will be unsubstantiated, while with the Challenger example the concurrence will be real, but potentially flawed. In both cases, the behavioural consequences will be similar—a convergence of vocalised opinion.

As we outlined in the previous section, inappropriate escalation of commitment is likely to be a behavioural tendency if the chosen strategy begins to fail. This tendency, compounded by psychological coping mechanisms that reduce the stress of a failing strategy, will result in flawed, non-vigilant, thinking. Clearly, *social* processes in organizational life will tend to magnify individual managers' tendencies towards strategic



inertia and business-as-usual framing by providing a group-based commitment to a potentially failing course of action.

Fragmentation in organizations

On the other hand, individuals and groups do manifest their dissent from an emerging consensus amongst others at the same or higher a level of the organization. However, this emerging dissent is likely to be suppressed, with opinions present in the background—in informal exchanges rather than in formal meetings.

This unresolved, underground, conflict is likely to lead to fragmentation in the organization. Fragmentation will be magnified if one grouping's views on an issue, or series of issues, holds the dominant position—perhaps the proponents of the dominant viewpoint hold senior positions high in the organizational hierarchy. In such circumstances, the other groupings are more likely to focus on their own self-interests rather than show support for the ideas held by the dominant group. At this point, the confirmation bias ensures that the separate and differentiated groupings of opinions remain unchanged, regardless of which position information favours. In short, the enemy is seen to be firmly *within* the organization.

In extreme situations, the basis of the conflict cannot be discussed. Things can even become so difficult that this fact (that the basis of the conflict cannot be discussed) itself becomes taboo and beyond discussion [11]. Formal meetings between the warring factions are, themselves, non-controversial. By contrast, the opposing factions will tend to focus, in private meetings, on each other as the organization sinks into decline.

Overcoming the Pathologies of Organizational Life

What, then, can be done to encourage the debate and questioning of prevailing worldviews within the organization? How can groupthink tendencies or fragmentation in the management team and the organization at large be alleviated? In the next section, we demonstrate that a scenario planning intervention within an organization contains the necessary components to overcome the pathologies of organizational life.

The benefits of scenario planning interventions

Scenario planning contains key components to promote effective exchange of opinions and beliefs amongst a management team [12], [13]. The construction of multiple futures holds open airtime for differing opinions about the nature of the future and provides a forum for the debate, questioning, and synthesis of complementary, contrasting, and conflicting viewpoints. Those enmeshed in particular fragments of the organization are provided with a process to achieve a synthesis of viewpoints that is likely to unite previously opposed factions.

The scenario process combines space for differentiation of views with integration of views towards a synthesis through the strategic conversation implicit in it. In this way, it assists management in steering the organization away from the excesses of groupthink on the one hand and, fragmentation on the other.

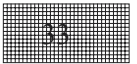
The practice of scenario planning is a means of overcoming strategic inertia, since it implicitly accepts that managers' best guesses about the course of future events and about the appropriateness of strategic choice, may be mistaken. Essentially, scenario planning interventions within organizations construct multiple frames of future states of the external world, only some of which may be well aligned with current strategy. Scenario planning can facilitate 'vigilance' in strategic thinking—in that alternative futures are thought through and strategic options can be subsequently evaluated against these futures. The process of scenario planning enhances the evaluation and integration of information and promotes contingency planning for unfolding of both favourable and unfavourable futures. Procrastination, shifting responsibility and bolstering commitment to failing strategies are thus attenuated by the scenario planning process. How do scenarios achieve this?

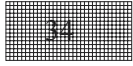
A scenario is not a forecast of the future

Multiple scenarios are pen-pictures of a range of *plausible* futures. Each individual scenario has an infinitesimal probability of actual occurrence, but the *range* of a *set* of individual scenarios can be constructed in such a way as to *bound* the uncertainties that are seen to be inherent in the future—like the edges on the boundaries surrounding a multi-dimensional space. Multiple scenarios provide alternate frames on the nature of the future.

Scenarios focus on key uncertainties and certainties about the future

This information can then be used to construct pen-pictures, in an information-rich way, in order to provide vivid descriptions of future worlds. It is worth comparing and contrasting scenario planning, as described here, with planning methods that require judgmental forecasts and confidence assessments. The judgmental process that produces such numbers is often not verbalised or recorded. Inherent in these planning methods is the assumption that it is useful and possible to attempt to predict the future, whereas scenario planning assumes that the best that can be done is to identify critical future uncertainties and plan for the range of futures that could, plausibly, unfold. Essentially, scenarios highlight the reasoning underlying judgments about the future and give explicit attention to sources of uncertainty *without* trying to turn an uncertainty into a probability.





A major focus is *how* the future can evolve from today's point-in-time to the future that has unfolded by the horizon year of the scenario – say 10 years hence. The relationship between:

- the critical *uncertainties* (as they resolve themselves);
- important predetermined *trends* (such as demographics), and
- the behaviour of actors who have a stake in the particular future (who tend to act to preserve and enhance their own interests).

The result is that the pen-pictures produced are, in fact, seen as plausible to those who have constructed the scenarios.

Scenarios help identify information to anticipate how the future will unfold

Alternative worldviews can be communicated easily in an organization via the medium of scenario 'stories'. Additionally, once a story has been read, and the reasoning underlying its unfolding understood, a future has been 'rehearsed'. Thus, once the early events in a scenario occur, the decision-maker will be able to anticipate how the future will unfold. These 'trigger events' will be seen as *information* among the stream of *data* that impacts upon the decision-maker.

Early contingency action—Just as the new purchaser of a car becomes sensitive to the variety of models of that make on the road, the scenario thinker becomes sensitive to a scenario starting to unfold and becoming reality. Such sensitivity can lead to early contingency action towards an unfavourable future.

Early recognition of opportunities—New business opportunities can be quickly grasped as soon as favourable scenarios begin to unfold. Such early recognition and reaction to an emerging future is seen, by some practitioners, as more useful than the creation of robust strategic options.

Typical outcomes of the scenario planning process

The typical outcomes of the scenario process include:

- Confirmation that the overall strategy of a business is sound, or that new, underpinning strengths need to be added to create more *robustness*. (Robustness implies that a strategy performs well in each scenario.)
- Confirmation that lower-level business choices are sound, or that new, alternative options are more robust.
- Recognition that none of the business options are robust and, therefore, contingency planning against unfavourable futures is necessary.

- Sensitivity to the 'early warning' elements that are precursors of desirable and unfavourable futures.

Scenario planning contains components to promote alternative views about the nature of the future and, also, challenges potentially inappropriate confidence—both in a single 'best-guess' future and also in a single, tried-and-trusted strategy. However, in terms of Figure 1, interventions with scenario planning may be seen by managers to be unnecessary. This is because the increased stress of a misfit between strategy and environment may either have not been experienced because of the dominance of out-dated mental models, or have been reduced to tolerable levels by psychological coping mechanisms.

In terms of Figure 1, the most appropriate point for a scenario planning intervention in an organization is, theoretically, *after* there is recognition that the environmental threat to current strategy is high, but *before* the psychological processes inherent in coping behaviour are engaged. As yet, however, little is known about whether or not there is a time delay, and if so how long, between management's recognition of a serious environmental threat to current strategy and the engagement of coping patterns. Conflict theory infers that the engagement and deployment of coping patterns are automatic and subconscious—such that individual managers will not recognise their deployment. It follows that organizational inertia in the face of environmental threat may be widespread, and that specific recognition of the value of scenario planning to an increase perceived threat and to facilitate strategic change may be lost.

In addition to the individual manager's thinking flaws, the social dynamics within an organization can, as we have discussed, create extremes of behaviour, from *fragmentation* to excessive integration of views or *groupthink*. Rather than developing proactive responses to environmental change, individual and organizational constraints result in managerial blind spots and inertia, locking management into an obsolete world view, i.e., business-as-usual thinking. Eventually, the organization will face strategic drift, gradually, if imperceptibly, moving away from a fit with their environment and customers. The occurrence of organizational systemic lock-in is a powerful force that can limit an organization's ability to learn and adapt to environmental change. It prevents signals for change from entering into managerial discussions or wider strategic conversations. Significantly, the scenario process can help organizations overcome individual and organizational limitations, introducing novelty and encouraging thinking beyond a single view of the world.

Scenario thinking is a powerful mechanism for learning and change in organizations. In reality, locked-in organizations cannot be changed simply by good advice from individual leaders who may see the situation and understand the problems. The effective solution is an organization intervention, as there are decision and action flaws that cannot be addressed by rational reasoning and persuasion alone. The advantage of

the scenario planning intervention is that it provides an opportunity for process gain in management teams *and* provides a forum for the debate, questioning and synthesis of complementary, contrasting and conflicting viewpoints.

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