

# **IMPERFECT LEARNING: WHAT DOES AN ORGANIZATION LEARN FROM ITS MISTAKE?**

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## **ABSTRACT**

It is argued that organizational learning from mistakes is often not a causality discovery but a causality replacement. Because of the impediments embedded in organizational learning coupled with legitimacy concerns to outside stakeholders, learning from mistakes is imperfect. Although important, organizational learning from mistakes is inherently myopic and small-scale.

## **ORGANIZATIONAL LEARNING**

Organization learning can be defined as development of new understandings of relationships between organization actions and outcomes through acquiring new information (Fiol & Lyles, 1985). While intangible unique assets such as firm specific knowledge create rent, the intangible nature makes it difficult for an organization to manage. Accordingly, many scholars are more concerned about how an organization is able to acquire learning capability by equating organizational learning with acquiring and sharing information among organizational members, and have paid scarce attention to the content of the information.

While admitting the importance of organizational learning from experience, several researchers criticize the optimistic and simplistic view of learning where new information from diversity of experience always improves the organization. The critical view fundamentally differs from the optimistic view in the sense that (1) experience may not be a good teacher and (2) sharing an unequivocal interpretation of an experience within an organization is very difficult. Literature examining "the myopia of learning" provides us with the five major problems that distort organizational learning: (1) ambiguous causality, (2) different views within an organization, (3) self-reinforcement, (4) poor organizational memory, and (5) myopia or short-term focus (Huber, 1991; Levinthal & March, 1993).

## **LEARNING FROM MISTAKES**

When an organization is faced with a major mistake or loss, the organization needs to take action to maintain its legitimacy among its stakeholders (Boeker, 1992). A mistake has only one clear message: something was wrong. Because of the ambiguous causality and multiple views within an organization, an organization may not be able to identify key causes of the mistakes (Dutton, 1997; Huber, 1991; Levinthal & March, 1993). Therefore, an organization may tend to simplify the causal relationships and attribute the mistake to the most visible actions or individuals. The CEOs and head coaches, who are the most visible figures in an organization, may be dismissed as scapegoats to outside institutional forces (Boeker, 1992). Organizational decisions that are often

argued to be caused by learning may be the results of either a random or intuitive replacement of a causal explanation or scapegoating.

### **Learning from Mistakes: An Initial Framework**

Several scholars point out the importance of the size of mistakes in considering the organizational learning from mistakes (Sitkin, 1992; Staw, Sandelands, & Dutton, 1981). Because learning starts from paying attention to an event, a mistake needs to be large or “shocking” enough to get attention (Weick, 1995). However, a large and threatening mistake may only make an organization more protective and rigid (Staw, et al., 1981). Thus, Sitkin (1992:238) argues that “smaller failures, because they are less threatening, may be able to attain the dual goal of capturing attention while avoiding threat-induced truncation of search.” The size of the mistake is normally associated with the size of the project.

Another perspective on learning from mistakes is the status of the project giving rise to the mistakes. A new and innovative project is often seen as “illegitimate” within an organization (Dougherty & Heller, 1994). Although there are champions who commit themselves to the new project, a majority of the members take the position of observers. Research tells us that when people take the position of an observer, they tend to attribute project success to environmental factors and project failure to internal and personal causes (Wagner & Gooding, 1997). In contrast, if a mistake comes from familiar and legitimated activities of an organization, the self-reinforcing nature of cognitive maps of an organization will ignore it or justify the mistake by attributing it to external, uncontrollable factors (Staw, et al., 1981; Wagner & Gooding, 1997).

Using these two axes, organizational learning from mistakes can be categorized into four patterns as shown in Figure 1. When the project associated with the mistake is involved in familiar activities and the size of the project is small (Cell I), the mistake often attracts scant attention or at most is attributed to the external environment. The self-reinforcing tendency of an organization and poor organizational memory justify the mistake and little new learning will occur (Huber, 1991; Levinthal & March, 1993; Weick, 1995). If the mistake is large and serious in the current business activity (Cell II), the organization and top management tend to be protective (Staw, et al., 1981). Alternatively, those top managers whose organization experiences a major loss may be dismissed by the board of directors, perhaps as scapegoats (Boeker, 1992). When the project is new and small (Cell III), it is expected that champions have an opportunity to acquire new information about the project and may be able to improve the project through trial-and-error learning. Finally, when the project is new and large (Cell IV), it is highly likely that the inherently “illegitimate” new project will be terminated (Dougherty & Heller, 1994).

From this framework, systematic organizational learning takes place only when the project is new and the mistake is small (Cell III). Although replacing “incompetent” CEOs (Cell II) is one of the organizational actions initiated by mistakes, it is not clear that the dismissed CEOs, who were either hired from outside or promoted from inside because they were “competent,” are really “incompetent” and the major cause of the large loss or mistake. Moreover, the new CEO search is often left to outside directors or even executive search agencies that do not have an opportunity to observe the mistake carefully.

## Learning from Mistakes: Towards Further Understanding

Even still, several management scholars stress the importance of learning from mistakes. Weick (1995: 153) states that “[i]n contemporary organizations, the costs of being indecisive frequently outweigh the costs of being wrong.” What may distinguish a good learner from a bad learner lies in the ability to acquire new information from the mistake besides the information that “they made a mistake.” The critical issue here is that new information per se will not help an organization to learn. As discussed, an organization experiences a number of interpretations of the causal relationships. The problem is ambiguity and confounding, not ignorance (Weick, 1995). Simply adding information may lead the organization to deeper chaos. In other words, the new information must help the organization to reduce its ambiguity.

To limit the boundary of the interpretation and reduce the ambiguity, an organization needs to have clear *ex ante* hypotheses to which the organization can compare the mistake without oversimplification (Kuhn, 1970). An organization can distinguish which part of the hypothesis is right and which part of the hypothesis is wrong only with an explicit hypothesis about the causal relationships.

When this new perspective is applied to the initial framework shown in Figure 1, the type of project will be categorized by the ease of creating clear *ex ante* hypotheses.

It is easier to create clear *ex ante* hypotheses in projects that are closely related to the current business rather than projects in new areas. As the size of the projects increase, the amount and the variety of information required to be considered will increase. Thus, it is easier to create clear *ex ante* hypotheses in small projects rather than large projects. As a result, an organization is most likely to have clear hypotheses in small, familiar projects and learn from the mistakes from those projects, while it is least likely to have clear *ex ante* hypotheses in large and new projects and learn from those projects. However, as discussed earlier, small mistakes in familiar projects are often attributed externally or ignored. On the other hand, an organization that conducts small projects in unfamiliar areas as experiments may be able to create clear hypotheses through the trial-and-error processes and learn from the failed experiments (Brown & Eisenhardt, 1997).

**Proposition 1:** When a project fails, the degree to which an organization’s *ex ante* hypotheses regarding the project are clear is positively associated with the ex post performance improvement of the organization.

Extending these arguments coupled with legitimacy concern leads us to question the possibility of learning from large mistakes. With daunting ambiguity, biases, and conflicts involved in understanding a large failure, it is very difficult to identify major causes. While we see some companies such as IBM and Chrysler that recovered from a large mistake by replacing the CEO, the recovery may be “rain after Hopi dance” or “regression to the mean” (Finkelstein & Hambrick, 1996) rather than learning effects. Replacement of top executives (e.g., CEO) may be more a random selection rather than a selection based on learning from the mistake. Although speculative, the logic outlined earlier suggests that large scale change is unlikely to result from organizational learning. Organizational learning in understanding new causal relationships may be inherently myopic and small-scale (c.f., Levinthal & March, 1993).

**Proposition 2:** Replacement of top executives (e.g., CEO) per se will not increase the probability that the company will improve its performance.

When an organization makes a mistake, in particular a large one, the organization will be faced with a dilemma of learning and legitimacy in terms of how the organization handles the managers in charge of the failed project. On one hand, managers who were responsible for the failed project may have learned valuable lessons from the failure. On the other hand, the organization needs to show stakeholders unequivocal messages that it will not make the same mistake again (Boeker, 1992). The net result of replacing managers who make a mistake is, thus, unclear. Losing the managers of a failed project may not be so important as is discussed by some authors in the popular business press, when considering the short-term emphasis of stockholders as opposed to long-term uncertain benefits of keeping the managers.

From the resource-based view, failure is potentially valuable if the organization effectively learns from it and applies the learning to the organization's future strategic behaviors. The costs of giving up the opportunity of learning from mistakes is large, not only because it is often the result of huge investment, but because the mistake is the organization's unique experience no other competitors can share. Although competitors may observe the outcomes (e.g., mistakes), they will not be able to access all the information about processes and factors that might lead the outcomes.

An organization may be able to balance the learning and legitimacy by decoupling the two. Several articles report that top executives who made a major mistake sometimes became successful again in a different division within the same organization or even in a different organization, utilizing lessons learned from the mistake. Further, by keeping those executives, an organization may be able to encourage a risk-taking culture, which is particularly important in the current changing environment.

Proposition 3: The degree to which an organization maintains managers who were in charge of failed projects in a different section within the organization is positively associated with the performance of the organization.

## FUTURE DIRECTIONS

Whereas a growing amount of attention has been paid to the importance of organizational learning, most literature simply assumes that there is a "right" knowledge or a "right" causal relationship. Questioning the plausibility of this assumption, by drawing on the discussion of Levinthal and March (1993) and others, herein it is argued that organizational learning from a large scale mistakes is often not a causality discovery process, but a causality replacement process and that organizational learning is important but inherently myopic and small-scale.

There are at least three issues, other than empirical research of the propositions, which will contribute to our further understanding of organizational learning. First, further elaboration of the processes through which a mistake is recognized within an organization is important. The "beginning" of learning may be as important as the "ending" of the learning (Dutton, 1997). Second, integrating the isomorphic behavior with learning from its own experience will further

**Figure 1**  
**Framework for Organizational Learning from Mistakes**

		Type of the Project	
		Familiar	New
Size of the Project	Small	<p align="center"><b>I</b></p> <p>Attributed externally Ignored/Justified</p> <p>Easiest to create hypotheses but mistakes may not be well examined</p>	<p align="center"><b>III</b></p> <p>Trial-and-error learning</p> <p>Modest difficulty to create hypotheses</p>
	Large	<p align="center"><b>II</b></p> <p>Threat-rigidity (Staw, et al., 1981) Scapegoating (Boeker, 1992)</p> <p>Modest difficulty to create hypotheses and unlikely to examine mistakes</p>	<p align="center"><b>IV</b></p> <p>Termination of the project</p> <p>Most difficult to create hypotheses Least likely to learn</p>

Experiments

develop our understanding of organizational learning mechanisms. Finally, more research is needed to understand how an organization can utilize people who were in charge of a major mistake. Managing people who make a mistake, in particular when they are top executives, is an important but largely unexplored issue in the management literature.

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