

Managing ahead of Crises: Rising towards a Model of Adaptability

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You can't solve problems with the same type of thinking that created them.

- Albert Einstein

Abstract: Issues of adaptability are complex and complicated. The purpose of this paper is to discuss adaptability as a process within a crisis. Using content analysis, the study found that adaptive leadership is a critical component in response to crisis situations, and that the notion of adaptability requires internal and external coordination, particularly in the self and at the organisational level. It is also hypothesized that rational thinking cannot be adopted under all scenarios to solve evolving problems. The paper sets out models that underscore the process of crisis management and the adaptive process, both of which are particularly relevant in crisis situations. These models can be used in any organisation, academic or non-academic for it confronts adaptability and leadership issues, which are arguably, considered as universal across industries. The article considers broader research from crisis management, leadership and the military.

Introduction

Procrastination is the enemy of adaptability. In today's environment, asymmetric threats around the world demand more from leaders to face up to complex and uncertain situations. The inability to react effectively and simultaneously may possibly result in fatal consequences for a soldier in a combat zone. Likewise for a business manager, the lack of adaptive skills may cause a company to lose millions within the touch of a button. Arguably, the notions of adaptive leadership have inevitably become a core competency in both military and civilian leadership (Army Leadership). In this aspect, crisis management is closely aligned with leadership due to its complex interactions between people and organisations as crises are being managed, regardless of context (Mitroff, 2004). While crisis management has been aligned with leadership for many years, research in these areas are particularly limited (Mitroff, 2004; Smith, 2006). The aim of this paper is to consider a range of issues around the core problems of adaptability in crisis situations for organisations to extend its competitive advantage in the global operating environment.

This article describes the crisis management process and proposes two models towards the development of adaptive leadership. These models provide a mechanism to form a schema of steps in order to better comprehend one's decision-making process. The paper is driven by a representation of literature across multi-disciplinary fields from

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psychology, leadership and crisis management to highlight issues of adaptability. Broad recommendations are also provided on the development of adaptive leaders in organisations. Overall, this study is intended to do more than just illuminate processes. Rather, it seeks to uncover a hidden dimension in the notion of adaptability in the crisis management process, which in turn, sheds new light across myriad fields.

Risk, Crisis and Adaptability: Elements of a Relationship

In every crisis situation, it is undeniable that some amount of risk is involved. More so, the ability to identify and “control” these risks within a system or an organisation is vital particularly in today’s uncertain context. In this sense, risk identification and the ability to adapt to new states, cognitively and systematically are required to enable optimal effectiveness in risk and crisis management. Based on this premise, adaptability can act as a function as well as a process to deter failure pathways. One can argue that the relationship of the broad elements of risk, crisis and adaptability are intertwined, especially when contingency plans fail to mitigate the risks involved so as to prevent catastrophic failures (Smith, 1990, p.266).

Defining the Crisis Process

Within the last twenty years, the discipline of crisis management has emerged as an academic specialization (Smith, 1990). From a strategic standpoint, a crisis is defined “as an adverse incident or a series of events that has the potential to seriously damage an organisation’s employees, operation, business and reputation” (Campbell, 1999, p.11). Similarly, in a military context, a crisis can critically undermine the ability of soldiers to carry out their tasks effectively, and consequences could be fatal should a mission go wrong.

Over the years, crisis management researchers have developed various models to describe key developments in a crisis ((Barton, 2008; Campbell, 1999; Smith, 2006; Mitroff, 2004; Pearson & Clair, 1998). In this context, Mitroff (2004) outlined five basic steps to aid a clearer picture of the crisis paradigm. He reflected that while crises are similar in nature, but it is still necessary to check for any signs of breakage in systems before any crisis unveils (Mitroff, 2005). The five steps of traditional crisis phases are outlined as follows:

1. Signal detection
2. Preparation/prevention
3. Containment/damage limitation
4. Recovery
5. Learning

These steps in a crisis encapsulate a traditional cycle that signifies risk mitigation at each level in an organisation. Smith concludes that the prevention of crisis is the

ultimate goal of any crisis management process, and maintains that defence mechanisms can cause possible escalations towards a crisis (Smith & Irwin, 2006), which will invariably create crises.

In addition to the articulating the different phases of a crisis, a crisis process will enable better comprehension of the crisis phenomena in further detail. Figure 1 thus specifies a typical crisis process which highlights different areas of escalation and containment. The graph attempts to conceptualise the process and “assumes that a crisis is reached when the organisation moves beyond its abilities to contain the task demands of the “event” and it escalates still further beyond the limits of contingency plans” (Smith & Elliot, 2006, p.309).

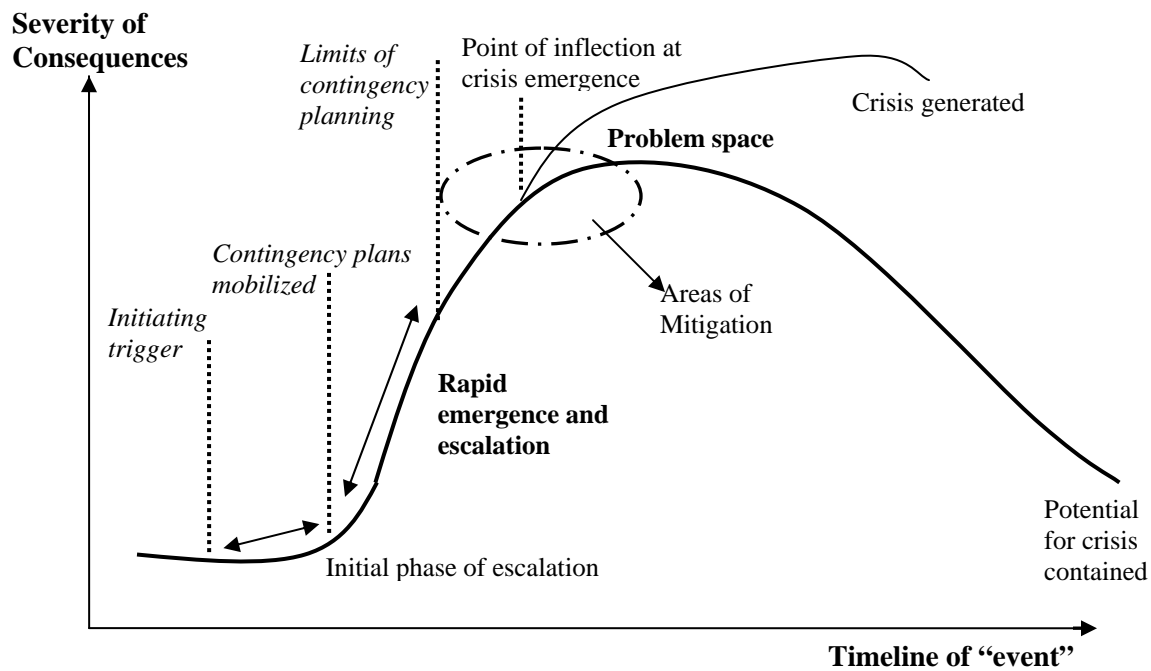


Figure 1. Crisis Emergence and the Point of Inflection.

Of particular importance here is the initial phase of escalation where Smith argues that “contingency plans should be mobilized (along with the crisis teams) at the time where it becomes clear that the event has the potential to escalate into a crisis” (Smith & Elliot, 2006, p.309). When this happens, external resources should take over to recover the “damage” caused (Smith, 1990). It is also at this point where the crisis moves into a problem space after an extended period of effective escalation due to internal and external pressures. The problem space resides at the point of inflection where problem activities incubate, and contingency planning becomes increasingly impotent.

It would appear from this brief review that although contingency planning can be used to prevent an event from escalating to the point of damage, it cannot account for

all situations, particularly in unconventional situations where extensive risk can spread both rapidly and exponentially. Clearly, the decisions and adaptive actions taken at this point are most crucial, and “the performance of the organisation here will also be a function of its previous testing of its contingency plans, the training of teams, and the integration of learning from previous crisis events (both internal and external to the organisation)” (Smith & Elliot, 2006, p.310).

At the point where the crisis incident moves out of the problem space and when crisis management procedures are activated, two routes are hypothetically formed. According to the demands from the crisis event, a crisis can either be generated or successfully contained. Taken together, these actions imply that the areas of mobilisation of contingency plans to its limits are of critical significance to the outcomes of the crisis event. At the same time, it is also possible that an organisation can still be fundamentally unstable despite appropriate rectification (Smith & Elliot, 2006, p.311).

The final stage, if the crisis is contained will bring the organisation back to a state of stability or a “pre-crisis” mode per se. It is only as a result of such a shift that the stabilisation of the crisis event is achieved. At this point, recovery and learning also takes place to prevent any further escalation. In sum, the graph exemplifies a crisis process that signifies the points of escalation and problem areas. It also establishes a standardized crisis route to allow better focus on effectively reducing uncertainty and mitigating the toxic implications occurring from a full scale crisis.

Adaptive-Crisis Model

The purpose of this model is to illuminate the key processes of adaptability in a crisis situation. Basically, the crisis process starts with an ignition of the crisis situation. The initial phase of the incident, or that period leading up to the initiating event, serves to generate experiences that surround the crisis situation. This subsequently leads to a mental differentiation of situations, where the cognitive processes of forming impressions, storming for ideas, and managing complexity within one’s mental domains are naturally activated (See Figure 2 for Adaptive-Crisis model).

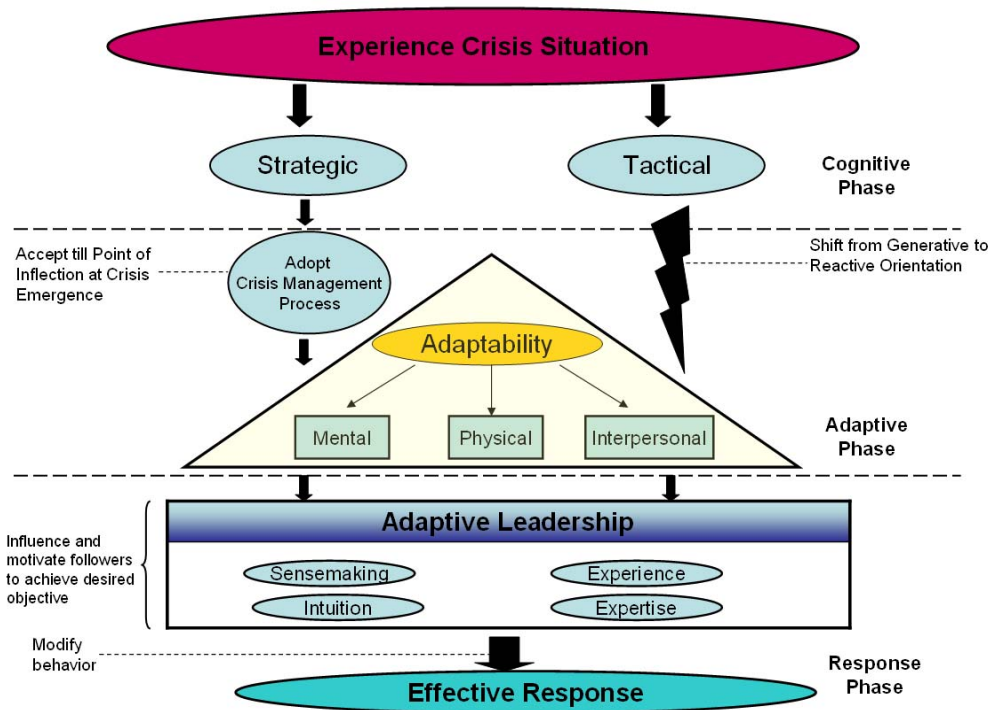


Figure 2. Adaptive-Crisis model showing a Continuous Process of Adaptive Factors.

As illustrated in the model, there are two main approaches once the crisis situation occurs. From the strategic approach, the crisis process tends to adopt a traditional method of crisis management as outlined by Mitroff’s five phases. It is deduced that this approach will be accepted till the point of inflection in the crisis process whereby adaptability attributes are used to negotiate the problem. Conversely, a tactical approach can be employed to deal with specialized tasks under an essentially “individual” scenario. Inevitably, this calls for adaptive actions to obtain desired outcomes. While behaviour change is a core principle of adaptability, adjustments arise largely mainly from situational and environmental movements. Still in this context, the following processes describe the transitions and movements of a crisis operator till an effective response is met.

- **Shift from Generative to Reactive Orientation.** Effective decision-making is needed to enable accurate judgments in a crisis (Tichy & Bennis, 2007). The ability to transcend beyond rational thoughts is sometimes required to meet task objectives. Rationality in this context is defined as behaviour that is appropriate to the given situation and takes alternatives and consequences into account. Even though there is acknowledgement that rational analysis is a powerful way to analyse data in a system, this claim might not be accurate in crisis situations due to external and internal complications. Therefore, reactive orientations to adjust to different environments are required for optimal decision-making.

However, in this reactive mode, it is possible that hyperrationality can occur. Klien argues that hyperationality is a “mental disturbance in which the in which the victim attempts to handle all decisions and problems on a purely rational basis, relying on only logical and analytical forms of reasoning” (Klein, 1998, p.260). Put another way, hyperationalisation can possibly degrade to paraanalysis by analysis – this is of particular relevance especially in situations when time and resources are limited.

- **Adaptive Phase.** The *Adaptive* phase is positioned between the *Cognitive* and the *Response* phase. Researchers from the U.S. Army Research Institute for the Behavioural and Social Sciences concluded that, adaptability is “an effective change in response to an altered situation” (White, Mueller-Hanson, Dorsey and Pulakos, 2005, p.2). Similarly, Flick of the U.S. Special Forces maintains that, “Adaptability is central to what we do...an adaptive individual is someone who consistently performs well, even when things go bad” (Flick cited in Mueller-Hanson, et al., 2000). Here, it is noted that mental short cuts to develop heuristics are significant to the adaptive leader as it enables effective diagnosis in situational awareness. This allows one to decipher information and translate it to practical experiences more efficiently. The adaptive phase of the Adaptive-crisis model offers three types of adaptability to support the nature of reaction to crisis situations:

- a. ***Mental Adaptability.*** Strong mental skills are essential in response to threats which occur during a crisis. Often, it is critical to diagnose the core problem and make sense of non-routine events. With mental simulation, extension of options can be created to assess courses of actions to respond effectively. Adaptability, therefore, involves both reactive and reflective actions that can generate courses of actions in a shorter period of time for review.

- b. ***Interpersonal Adaptability.*** Interpersonal adaptability enhances emotional intelligence and allows one to be more critically aware of oneself and others (Goleman, 1995). With interpersonal adaptability, communication becomes more effective, which exponentially increases the probability of success in tasks. More significantly, interpersonal adaptability strengthens relationships and directs a different way of being smart. In essence, the ability to understand oneself, as well as others enhances the adaptability process.

- a. ***Physical Adaptability.*** Physical adaptability is the ability to perform activities to suit a particular environment. It allows flexibility in response to threats and generates measures that allow organisational objectives to be met efficiently. Put simply, this means putting words in action.

Adaptive Leadership

Metaphorically speaking, adaptive leadership is the capacity that allows mental and physical states to transit into different domains under evolving conditions. This process is a continuous one that is both reflective and simultaneous. Conceptually, the adaptive leadership process is grounded on the following tenets:

- a. ***Intuition/Gut feeling.*** According to Gigerenzer, intuition or gut feeling refers to a “judgment that (1) appears quickly in consciousness (2) whose underlying reasons we are not fully aware of (3) is strong enough to act upon” (Gigerenzer, 2007, p.16). Interestingly, he also suggests that intuition has its own rationale, and takes advantage of the capacities of the brain to size situations up unconsciously for the purpose of adaptation (Gigerenzer, 2007). In this context, high performance leaders such as the Special Forces, generally make decisions based on instinct, particularly when time and resources are limited due to combat conditions (Sternburg, et al., 2000).
- b. ***Sensemaking.*** Sensemaking is a process that is unconsciously gathered when sizing up situations. Simply put, sensemaking is about facing an event, looking back at it and thinking about (Weick cited in Smith & Elliot, 2006). From the perspective of sense making in crisis environments, Weick proposes an “enactment perspective”, which is seen fundamentally as a “process, enactment and a product that is infused with commitment (Weick cited in Smith & Elliot, 2006, p.207).
- c. ***Experience.*** Experience is a critical predictor of adaptive performance (White, Mueller-Hanson, Dorsey and Pulakos, 2005). Research has shown that adaptive and experienced leaders are more likely to perform in an adaptive manner when put in new situations (Pulakos, et al., 2002). Kolditz (2007) explains that leaders in demanding situations (he refers to such leaders as extremis leaders) provide a strong sense of purpose, and generate options with the use of the knowledge with experience. In a fast-paced environment where simultaneous decisions are made in compressed situations, the reliance of past experiences inevitably becomes an important component in the overall decision-making process.

Ironically, despite experience being known to aid decision-making, there is also criticism that the over reliance on past experiences will impede performance. Judgment is therefore needed to complement the decision-making process identified through a series of past patterns. As Bono succinctly puts it, “The brain is designed to learn through repeated exposure. Gradually patterns are formed. These patterns are then used on future occasions. The choice of the appropriate pattern depends on judgment” (Bono, 2000, p.53). It is in this connection that the formation of mental patterns, coupled with relevant

experience that will provide a sustainable advantage to the adaptive leadership process.

d. **Expertise.** Undeniably, experts are people who have accumulated lots of knowledge in a particular field, and preserve the ability to notice patterns and abnormalities. They are also generally more self-aware of themselves and the situation. With competent adaptive attributes and metacognition, deeper thinking is cultivated within. From another perspective, the “expert” approach transcends logical thought as new dimensions of ideas are generated through injections of ideas to enhance the adaptive leadership process.

Behaviour Modification

Implicit in behaviour modification is the cognitive senses of human beings. Positioned at the final stage of the Adaptive-Crisis model, this process enables the concept of “fitting-in” to take place. Put another way, this mental sequencing becomes an evaluation process, which involves the use of recognition heuristic (Gigerenzer, 2007, p.130). From a scientific standpoint, this modifying experience can also be known as the sixth sense of a human being that uses the anterior frontomedian cortex (afMC) as a neural correlate that checks and limits one’s desired actions (Brass & Haggard, 2007). Diametrically, the brain makes modifications to shape one’s adaptive actions.

Developing Adaptive Leaders

Leadership is essential in all organisations. The primary concern of adaptive leadership is to solve complex and fluid problems effectively. For one thing, organisations need to ensure that its prospective leaders are exposed to transformational experiences in their training. As a consequence, it is absolutely critical to think beyond current training systems to engage dynamic societal and technological evolutions. Now that the tenets of the adaptive process and leadership are being explained, the next question one might ask is: How can these broad concepts be refined to develop adaptive leaders? Using the above literature discussed, it is possible to approach this issue from three positions. First, it is essential to recognise the need for adaptability as a core competence needed at all levels in the organisation. This recognition can start in organisational training, with dedicated efforts focusing on adaptive performance, critical thinking and problem solving. These training can include interventions that encourage adaptability and experiential learning – this enables minds to move from anticipatory to reactionary domains. Taken together, one of main principles of adaptive training is to enable the integration of lateral and parallel thinking to stimulate critical thinking.

With regard to critical thinking, Halpern’s (1997) review of decision-making skills and dispositions illustrates an appropriate basis of how critical thinking can be categorised in practical problem-solving and issues of adaptability. On this note, Halpern defines critical thinking as “the use of cognitive skills or strategies that increase the

probability of a desirable outcome” (Halpern, 1997, p.4). This definition creates a basis of discussion towards the issue of adaptability. The following table highlights Halpern’s categorization of critical thinking skills and how cognitive abilities can merge with the notion of adaptability (Halpern cited in Mosley, et al., 2005, p.143).

Likelihood and uncertainty critical thinking skills	Decision-making skills	Problem-solving skills	Skills for creative thinking
<ul style="list-style-type: none"> Utilizing base rates to make predictions Adjusting risk assessments to account for the cumulative nature of probabilistic events Thinking intelligently about unknown tasks 	<ul style="list-style-type: none"> Generating alternatives Evaluating the consequences of various alternatives Recognising the bias in hindsight analysis 	<ul style="list-style-type: none"> Recognising the critical role of persistence Selecting the best strategy for the type of problem Actively seeking analogies 	<ul style="list-style-type: none"> Redefine the problem and goal Brainstorm (without censoring or evaluation) Visualise from other perspective

Figure 3: Extract of Halpern’s Categorization of Critical Thinking Skills.

Lastly, it is recommended that training interventions include problem-solving routines in curriculum (Klien & Pierce, 2001). Additionally, leverage on gaming technologies to increase human efficiencies in hypothesis testing and reflection can further enhance the overall adaptability process. Other recommendations to increase one’s adaptive skills include the use of testing applications, discovery learning and deliberate feedback sessions to train adaptive performance (White, et al., 2005).

With these recommendations in mind, organisational leaders must nevertheless, take the first step to build this “diagnostic” culture. They should continuously learn, relearn and unlearn ways of moving beyond the boundaries of conventional viewpoints in order to gain a competitive advantage in the industry (Tu, 2008). At the basic level, leaders can address the issue of identification of adaptive characteristics using a generic criteria originated from Special Forces training (Mueller-Hanson, et al., 2007, p.29). (See Figure 4 for adaptability characteristics across broad attribute scales).

Training Potential of Adaptability Characteristics			
Stable Attributes		Malleable Attributes	
Cognitive Ability/Intelligence	Problem-Solving	Communication Skills	Domain-specific knowledge
Openness	Decision-making Skills	(Negotiation and conflict resolution, persuasion,	Varied Adaptive Experience
Resilience	Metacognitive Skills	Awareness (self, others, situation)	
Tolerance for Ambiguity	General Self-Efficacy		
Achievement/Motivation			

Figure 4: Table showing Scale of Adaptability Characteristics.

Discussion

In final analysis, there are a few areas set out for discussion. Based on the literature set out in the paper, the central concern of intuition is to make optimal decisions with the necessary adaptive skills. Against this background, Smith (2006) proposes that learning from previous crises, and testing of contingency plans are some options that lower the probability of crisis escalation. On the same note, Gigerenzer (2007) maintains that more information in a crisis situation might not be necessarily better, whereas Klien and Pierce (1998) propounds the necessity to train individuals to capitalize on instincts to solve problems without over-reliance on logical thought. From these assertions, there is indication that the issue here appears to be adaptive rather than systematic to solve the *problematik*.

Given the multiple intellectual expressions of leadership and crisis management, it is critically important to illustrate two main observations between crisis management and adaptive leadership. First, crisis management is primarily reactive, and addresses crises only after they have happened. Second, adaptive leadership seems to be more individualistic but it can, however, transit seamlessly into the strategic and tactical areas of an organisation's leadership continuum given its flexible nature.

While this paper can address some issues on adaptability, it is noted that not all areas of the subject area can be answered. Arguably, the paper comes with some limitations. First, the processes highlighted are generalized across occupations and are therefore, not intended to solve all organisational problems. Second, this paper focuses on content analysis, which does not rely on scientific deductions. While content analysis is probabilistic, it does enable an accurate analysis of social phenomena, and is "far superior to reading for impression on this score of objectivity or impartiality" (Carney, 1972, p.12).

Overall, the processes discussed in this paper provide a set of guidelines to address the issue of increased demands on adaptability in current times of global institutional failures. This requires a new consciousness and leadership capacity that can fundamentally alter the ways people think about critical issues. It is envisaged that the enhancement of adaptive skills and leadership, will not only increase strategic, but also operational processes within organisations. As noted earlier, Einstein said that the kind of thinking that is responsible for problems cannot be used to solve them. In this age of terrorism and massive institutional failures, the extension of such a thought is especially applicable.

Conclusion

Given the current unpredictable security environment and global economic downturn, the notion of adaptability has become even more crucial in management. It has been suggested throughout this paper that adaptive leadership is relevant in organisations.

As discussed in the paper, the crisis management process highlighted problem areas in a typical crisis situation, whereas the Adaptive-Crisis model illustrated a sequence of processes till an effective response is reached. The other models presented offered insights in risk generation and crisis management as they are predicated on an extensive review of the intended research literature.

While the general qualities of analysis of logical thinking would be of great benefit regardless of contextual application, the study of crisis management and decision-making in particular affords a macro analysis of systems, processes and the flow of information within organisations. The contents in this article indicate that adaptive leadership provides organisations with the ability to anticipate and respond to crisis situations. However, it is also noted that that current leaders should recognise present evolutions, and adjust to future environments by modifying the way they worked in the past. Finally, this discussion marks the beginning of potential dialogue around the issues of adaptability, crisis management and leadership, which may generate new insights into research across multiple areas. The next challenge will be to move from theory to application.

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