Antología Liderazgo

Adaptive Critical Thinking for a VUCA World

By Pamela E. Ey, Gregory C. Berka, and Lynda Doyle

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ABSTRACT

Major developments in 2020, including the SARS-CoV-2 (COVID-19) pandemic and the Black Lives Matter movement, fostered volatile, uncertain, complex, and ambiguous (VUCA) climates requiring fast and effective responses from organizational leaders. Leaders responded in myriad ways, with a consistent goal of creating an agile organization (Groysberg & Abbott, 2020). We contend that the ability to create an agile organization necessitates Adaptive Critical Thinking (ACT). Flexibility, speed, and strategic assimilation of new information are required as these situations unfold. OD as a field and practice can embrace Adaptive Critical Thinking to prepare leaders to navigate the current and likely future VUCA world. This work is in the formative stage. The authors welcome collaboration with organizations and OD professionals to develop the ACT concept.

Keywords: critical thinking, VUCA world, adaptive, agile organizations

Benchmarking based on industry best practices and the incremental changes driven by identified gaps have historically provided accessible ways of thinking for many organizations. Things have changed. Emergent practice thinking rather than best practice thinking (e.g., Snowden and Boone's 2007 Cynefin framework), enables us to show up for clients with probing questions that challenge assumptions and lead to long term results in organizations that run as complex systems. We call this emergent thinking Adaptive Critical Thinking (ACT). Heifetz and colleagues (2009) proposed adaptive leadership as the framework for preparing leaders to thrive as they deal with these types of challenges. Similarly, Christensen (2013) and his co-authors identified consulting on the cusp of disruption as a new way of working. The cusp is far away in our rear view mirrors.

Today's VUCA world adds a layer of complexity for organizations and creates a nearly overwhelming demand to seek innovative ways to lead change and create agile organizations (Groysberg & Abbott, 2020). In response, quality thinking is needed to help leaders, teams, and individual contributors become more adaptable, flexible, and better able to cope with rapidly evolving situations, using sometimes flawed, and incomplete information. For instance, The ability to deal with a crisis situation is largely dependent on the structures that have been developed before chaos arrives. The event can in some ways be considered as an abrupt and brutal audit: at a moment's notice, everything that was left unprepared becomes a complex problem, and every weakness comes rushing to the forefront. The breech in the defenses opened by crisis creates a sort of vacuum

(Lagadec, 1993).

The COVID-19 pandemic, for example, has been a brutal audit indeed. To fill the breech that Lagadec describes, people typically use a handful of cues to help construct a coherent larger story about how to deal with the crisis (Weick & Sutcliffe, 2015). Identifying implications of emergent system behavior is an example proposed in this paper. There have been stark differences in the authors' countries between policy and actual social distancing/mask wearing behaviors. In a complex system, a single level of explanation cannot fully describe the change process, such as simply mandating wearing masks and social distancing. Features emerge in organizations that cannot be predicted, so it is imperative to consider how interactions give rise to patterns of behavior (Miller & Page, 2007).

We propose an explanation of Adaptive Critical Thinking, an eight-step process for OD application, and seven provisional standards which served as the basis for an enterprise-wide pilot program on ACT development. The authors derived the provisional standards from literature review, and used a learning assessment in the pilot to make sense of their level of effectiveness in an OD learning context. We plan quantitative research to test and refine these standards.

Adaptive Critical Thinking is an extension of Donald Schön's reflection-in-action. It is the ability to recognize unexpected situations, *make sense of them, decide on a course of action, and construct knowledge during problem solving—often while the situation continues to unfold as options are being considered. . . . Our working definition for Adaptive Critical Thinking is: reasonable and reflective thinking about ill-defined issues using incomplete information, focused on deciding what to accept versus question, or what to do . . .*

First, Adaptability

Adaptability has been defined in different ways (e.g., Pulakos et al., 2000; Smith, 1997). This paper uses the Mueller-Hanson et al. (2005) concept of adaptability as: effective change in response to an altered situation. Our notion is a person must use effective modes of thinking to recognize the need to change based on something in the VUCA environment, and then adaptively and flexibly respond. Adaptive capacity is the resilience of people plus system capacity to define and solve problems in the midst of adaptive pressures and the resulting disequilibrium (Heifetz et al., 2009). Professionals in dynamic and uncertain situations rely on prior knowledge and experience to generate workable solutions (Klein et al., 1989). Humans don't reason using formal operations from standard logic (Cheng et al., 1986). Instead, we assert that thinking effectively on our feet is essential in the VUCA organizational environment.

Adaptive Critical Thinking as Reflection-in-Action for Adaptive Challenges

Adaptive Critical Thinking is an extension of Donald Schön's (1983) reflection-inaction. It is the ability to recognize unexpected situations, make sense of them, decide on a course of action, and construct knowledge during problem solving—often while the situation continues to unfold as options are being considered.

Our focus is adaptive challenges with no known solutions that can only be addressed by changes in people's priorities, beliefs, and habits. In contrast, technical problems have known solutions that can be solved through current knowledge, and authoritative expertise using the organization's current structures (Heifetz et al., 2009). Our working definition for Adaptive Critical Thinking is: reasonable and reflective thinking about ill-defined issues using incomplete information, focused on deciding what to accept versus question, or what to do (adapted from Norris & Ennis, 1989).

Contrasting Formal Thinking with Adaptive Thinking

Formal reasoning models do not help much in complex, dynamic, and uncertain real world situations to which we must adapt (Beach & Lipschitz, 1993) for these reasons, among others:

1. Logic is just one part of reasoning, and not sufficient for improving reasoning quality (Colberg et al., 1985; Johnson- Laird, 1983).

2. Formal logic does not address context or content. People need to look for content and context clues in order to adapt to a situation (Pennington & Hastie, 1993).

3. Seldom does one have complete, certain information. To say that a person needs more information before they can start thinking is often pointless. Thinking is concerned precisely with extracting information from experience and expertise and projecting it to situations where there are unknowns (Weick & Sutcliffe, 2015).

4. Logic is a formal system of thought. It is complex and time consuming to learn and apply. The technique concentrates on form and not content. But reasoning involves both (Irwin, 1988).

5. Premises within the framework of logic are taken as true or false; but our perceptions of the truth are seldom absolute, without any doubt. There is uncertainty associated with our informal premises (Maitlis & Sonenshein, 2010).

6. The rules of logic do not conform to the rules of conversation, when one considers a speaker's intentions (Puckett et al., 1993).

Table 1: *Contrast Formal Thinking and Adaptive Thinking*

Thinking Aspect	Formal Thinking	Adaptive Thinking
Application	Well-bounded problems using best practices	Complex, everyday problems using emergent practices
Variation	General purpose	Tailored to circumstances, values, experience
Source of control	Theory dictates	Person determines how thinking best proceeds in each situation
Process	Convergent	Divergent, creative, and discriminating
Orientation	Form, process oriented	Goal oriented
Foundation	All premises exist	Some premises are implied or missing
Knowledge	Knowledge exists or can be determined	Some level of uncertainty always exists
Goals	Single answer exists and is found through application and process	An answer might not occur or many answers might exist
Theoretical basis	Classical models, enforce rational decisions	Naturalistic, understands what makes people adaptive and effective

Table 1. contrasts the aspects of adaptive reasoning we need in complex organizations contrasted with the formal reasoning that is not particularly helpful.

Development of Adaptive Critical Thinking

Adaptive thinking and adaptability are related to personality traits (like resiliency, openness to change, and efficacy from Big Five Factors) and achievement motivation (a sub-trait of conscientiousness, internal locus of control, tolerance of ambiguity, and willingness to learn) (Mueller-Hanson et al., 2005; White et al., 2005). Adaptive thinking characteristics other than traits include cognitive skills (like general mental ability, problem-solving/ decisionmaking, and metacognition), interpersonal skills (like communication and self/ other awareness), domain specific knowledge, and experience (Mueller-Hanson et al., 2005; White et al., 2005). These thinking qualities in the categories of personality traits and cognitive ability, are not good levers for development interventions even though they are predictive of adaptive performance, since they are considered relatively stable. Further, possessing Adaptive Critical Thinking attributes is not sufficient for mastery. Where, then, to intervene with OD initiatives? We argue for intervening with a focus on dispositions rather than skill mastery. The good news is one can cultivate an adaptive critical thinking spirit—habits leveraged when the situation calls for them (Brown and Keeley, 2007). Here is how.

Developing Adaptive Critical Thinking by Improving Habits of Thought

Habits of thought are also called dispositions (Carracedo and Valenzuela, 2012). Here are examples that distinguish our focus on disposition versus skill:

- Do you recognize and challenge your own assumptions? (Not: Can you recognize and challenge your own assumptions?)
- Do you check your biases? (Not: Can you check your biases?)

Some use the term virtues instead of dispositions (e.g., Bailin & Battersby, 2016; Paul &Elder, 2009). The thinking virtues are considered intellectual virtues (Turri et al., 2017; Zagzebski, 1996). Developing these adaptive dispositions, thinking habits, general tendencies, propensities, inclinations, or intellectual virtues is actionable with development (Siegel, 1999):

1. Thinking dispositions can be improved (Siegel, 1999).

2. Thinking dispositions require fewer context clues than skills (Facione, 1990). This implies training and development efforts can use general scenarios rather than highly technical ones.

3. Thinking dispositions are the levers of thinking skills. Skills are required for, but not sufficient for Adaptive Critical Thinking. So, dispositions—habits of thought—make the difference in thinking outcomes (Giancarlo & Facione, 2001).

Practical OD Application in Eight Steps

Figure 1 illustrates a proposed theoretical process model from the authors, using Schön's (1983) process lens to describe the process at the individual level of analysis, via stepping into the shoes of a single person. Key thinking dispositions are woven together
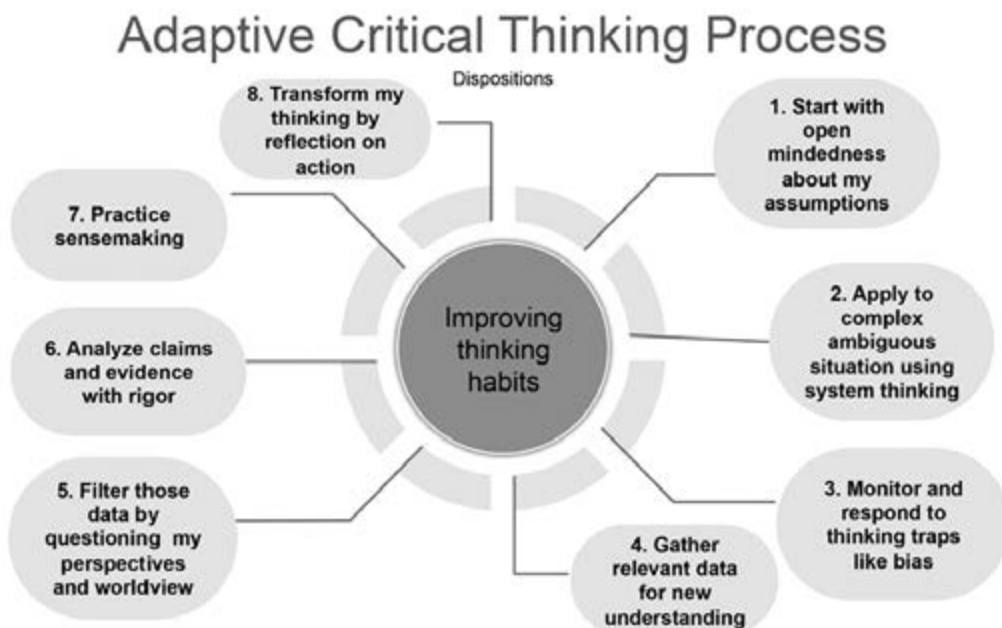

Figure 1: Adaptive Critical Thinking Dispositions Process

in a logical flow through this process, which starts with one's own assumptions and open-minded attitude and progresses through to a final reflective step where thinking habits are upgraded. In these proposed eight steps, the person allows themselves to be surprised, puzzled or confused. The person reflects on the present situation, considering their prior understanding and behavior. Then they carry out an experiment with the aim of generating new understanding— over time forming a habit of good quality Adaptive Critical Thinking on one's feet. Although the steps are laid out as a process flow, in practice an individual may need to back up to prior steps in situations where movement forward does not support development.

This eight-step process perspective is consistent with Kegan's (1998) concept of adult development. The ACT development transformation is intended to move adults from I am my feelings, emotions, and beliefs to I have feelings, emotions and beliefs contrasted in Table 2.

Action Plan for Developing Adaptive Critical Thinking

We propose a list of provisional standards for Adaptive Critical Thinking development with the goal of improving reasonable and reflective thinking about ill-defined issues using incomplete information, focused on what to accept versus question, or what to do. The researchers gathered these standards from literature review. The standards formed the basis for an enterprise- wide pilot program delivery supporting employee development in Adaptive Critical Thinking.

From a development perspective, our outcome focus is on positive transfer of learning to workplace behaviors. We consider far transfer (Perkins & Salomon, 1992) as the applicable characterization to acknowledge and integrate the messy nature of the ACT processes. Put simply, far transfer means the cause and effect links are far from each other and the

Table 2: *Transforming from subject to object thinking*

I am – Subject	I have – Object
Attached to our self concepts	**Detached** from our self concepts
Cannot step back from this thinking	Can step back and reflect from this thinking
Here we are stuck because our thoughts are tightly connected to our personal identity	Here we can look at, engage, control and connect to something else.

Adapted from Kegan, 1998

thinking paths between them are difficult to navigate. Far transfer involves contexts that seem very different from one another, such as a pandemic and systemic racism. Far transfer is mindful transfer, using deliberate abstraction and searches for connection (Langer, 1989). In contrast, with near transfer, the links between cause and effect are close and easy to spot. Near transfer involves triggering well-practiced routines by stimulus conditions similar to those in the learning context. Far transfer requires time for exploration and investment of mental effort (Salomon & Perkins, 1989).

In the following list, the standards are presented for the OD practitioner, with a program development perspective. In turn, these could be translated into participant performance or learning objectives leveraging an organization's performance needs analysis, and program goals and objectives.

Dealing with assumptions and beliefs with open mindedness

- Recognize, verbalize, and challenge one's own assumptions and beliefs with an open mind, and respectfully challenge the assumptions and beliefs of others as appropriate.
- Create and sustain an environment with psychological safety so there is enough trust for open sharing. Suspend judgment while alternatives are being explored.

Dealing with complexity (intractable problems) as our thinking context

- Understand the meaning and implications of emergent (rather than predetermined) behavior. This is a state of perpetual novelty.
- Become proficient with intractable issues. A tractable system or problem can be taken apart and put back together like a bicycle can. An intractable problem is like a frog. It cannot be taken apart and put back together.

Dealing with thinking obstacles and traps

- Become proficient with issues such as biases and other thinking traps like stereotypes.
- Recognize humans are pattern-seeking creatures; humans think in narratives and stories; humans crave certainty. Becoming sensitive to these human characteristics helps improve adaptive thinking (but it does not immunize us!).

Dealing with ignorance and knowledge

- Deal with incomplete and imperfect information; understand relevance, significance, precision, accuracy, clarity, sufficiency, depth, fairness, and breadth.
- Become comfortable with ignorance in the context of using data to clarify existing knowledge and gain new knowledge. Ignorance in this sense is valued as

a gateway to asking more insightful questions, and pointing the direction toward one's information seeking efforts.

Dealing with perspective, mindset and attitudes

- Recognize one's own filters for selecting and making sense of data like perspective, mindset and attitude. We humans don't see things as they are; we see things as we are. Any defect or restriction in perspective is a possible source of reasoning problems or errors.
- Seek to understand the perspectives of others, and how others filter data; remove the limits to our own desires and capacity to take in new ideas.

Dealing with sensemaking

- Recognize hope is not a strategy, so organize doubt and use mental models to make sense of data and anticipate consequences.
- Become proficient with sensemaking and evaluating the sensemaking of others. Sensemaking is not connecting the dots. Instead it is discerning what counts as a dot in the first place.

Dealing with reflective thinking upgrades

- Understand the previous steps are reflecting-in-action, which is thinking on

our feet. This is upgrading our thinking using Schön's (1983) reflection-on-action. Development necessitates recognizing when our thinking is off track, and knowing what to do about it.
- Reflect on upgrading thinking characterized with habits including: questioning our assumptions, broadening our perspective, taking the perspective of others, working comfortably in complex adaptive systems situations, asking what else might be going on in a situation, and checking our biases.

CONCLUSION

There is no question that major developments in 2020, including the COVID-19 pandemic and the Black Lives Matter movement, fostered VUCA climates, requiring fast and effective responses from organizational leaders. Flexibility, speed, and strategic assimilation of new information are required as these situations unfold for the foreseeable future. OD as a field and practice can embrace Adaptive Critical Thinking capabilities and specifically seek to increase awareness and capacity by intervening to leverage and improve thought habits in preparing current leaders to navigate the VUCA world.

Gregory Berka, PhD

Assistant Professor in the McColl School of Business at Queens University of Charlotte. He teaches in Queens' Master of Science in Organization Development program, has published OD case studies and related research, and helps both students and professionals to foster their own and others' creativity. Greg can be reached at berkag@queens.edu.

Lynda Doyle

Is a learning and development professional at Transpower New Zealand Ltd. She has 25 years' experience as a learning and development practitioner. Lynda currently leads the design and delivery of technical development programmes within Transpower NZ Ltd and Grid Skills, a Private Training Enterprise registered with the New Zealand Qualifications Authority, delivering vocational qualification programmes for the transmission sector of the New Zealand electricity supply industry. Lynda can be reached at lynda.doyle@transpower.co.nz.

Pamela Ey, PhD

Adjunct instructor in the McColl School of Business at Queens University of Charlotte. She teaches in Queens' Master of Science in Organization Development program, conducts and presents ongoing research, and works with professionals in high hazard industries at the intersection of the complex system and people doing the work. Pam can be reached at eyp@queens.edu.

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