ADVANCING ADAPTIVE LEADERSHIP THROUGH ADAPTION-INNOVATION THEORY: ENHANCEMENTS TO THE HOLDING ENVIRONMENT

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While adaptive leadership is a useful framework for leadership practitioners, there is limited empirical research supporting its conceptual tools and tactics. Kirton's adaption-innovation (A-I) theory contends individuals have innate problem-solving style preferences for more or less structure. In the current conceptual paper, we examine the theoretical underpinnings of adaptive leadership and A-I theory within the context of complex problem-solving. We connect A-I theory to concepts from adaptive leadership to link a more rigorous and empirically supported theory to a popular practice. We go further to explore how a leader's A-I style informs the maintenance of an adaptive leadership holding environment (HE), particularly with regard to facilitating a productive zone of disequilibrium (PZD).

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Introduction

Since Heifetz's (1994) book, *Leadership Without Easy Answers*, adaptive leadership (AL) has consistently grown in popularity among practitioners and scholars. The AL framework is a useful resource for leaders attempting to help organizations and communities adapt to change. However, AL endures significant criticism surrounding its lack of theoretical underpinnings, empirical research, clear conceptualizations, and evidence-based support for the framework's basic tenets (Northouse, 2022). For all its popularity, few studies have supported AL's tenets with either philosophical grounding or empirical evidence (e.g., Adams et al., 2013; DeRue, 2011; Mugisha & Berg, 2017). Both practitioners and scholars could benefit from a greater understanding of AL's inner workings (Cletzer et al., 2021).

Well before Heifetz (1994) wrote *Leadership Without Easy Answers*, Kirton (1976) introduced adaption-innovation (A-I) theory, contending that all individuals are creative and must solve problems in their day-to-day lives. Kirton (1976, 2011) contended that no individual leader is suited to solve a complete spectrum of problems. Kirton (2011) explained:

> For a long time now we have searched for ideal leaders who can, with the help of their teams, be guaranteed to solve specific arrays of problems. But we have long known that such leaders cannot hope to solve any such increasingly complex arrays by relying on knowing enough personally to arrive at all the answers. It is the whole team that needs to solve the problems … (p. 312)

Kirton's (1976) research, as well as the research of others, provided evidence that individuals have an innate and stable problem-solving style as a dimension of one's personality based on preferences for more or less structure. More "adaptive" individuals prefer structured situations which allow them to develop creative ideas within an accepted paradigm for the purpose of making it more efficient (Kirton, 2013). More "innovative" individuals prefer less structured situations where they may develop creative ideas, both inside and outside of an established paradigm, for the purpose of making things different (Kirton, 2013). In reality, a wide range of problem-solving styles in a team helps to solve a wider range of problems (Kirton, 2011).

So, how might AL's concepts be clarified and inner mechanisms explained with A-I theory? One potential alignment lies primarily with AL's use of a holding environment (HE) for problem-solving work and the challenge of establishing a productive zone of disequilibrium (PZD) among stakeholders. Perhaps A-I theory offers insight on how individuals cope with the challenge of problem-solving with a cognitively diverse group of stakeholders.

Explanation of Theories

Before discussing the overlap and complementary nature of the frameworks, it is important to first clarify key aspects of A-I theory and AL.

A-I THEORY

First published over 45 years ago, Kirton's (1976) A-I theory articulates how individuals each have a problem-solving style, either being more adaptive or more innovative in one's preference with regard to how one generates ideas, utilizes structure to enact change, and responds to rules and group norms. Problem-solving style is independent of intelligence, process, motive, attitude, situation, culture, ethnicity, and learned skills. In A-I theory, more adaptive individuals prefer well-established and structured situations, allowing them to develop creative ideas within the structure for the purpose of making it better (Kirton, 2013). Often, more adaptive individuals are perceived by the more innovative as detailed, thorough, systematic, and traditional. A more innovative individual, on the other hand, prefers less structured situations where they may develop creative ideas as a mode of altering or making a difference to structural elements (Kirton, 2013). More innovative individuals are often perceived by the more adaptive as freethinking, rule-breaking, and unconventional. One's preferred problem-solving style cannot be altered or developed, but, rather, is constant throughout one's life (Kirton, 2013); this is in contrast to a person's understanding of, and approach to, leadership, which may shift as one changes his or her attitudes and beliefs on leadership (Priest & Middleton, 2016).

Given the nature of the problem to solve, people can choose to operate more adaptively or more innovatively than their preferred problem-solving style (Kirton, 2011). This effort is termed coping behavior and is used to overcome the cognitive gap that may exist between an individual and the problem to solve, between two individuals, between an individual and team average of problem-solving styles, or between two teams. Over time, based on motive, environmental factors, and self-awareness, individuals may learn skills to operate more adaptively or innovatively when the problem solver recognizes the need to do so. However, it is psychologically taxing given the amount of effort and duration required to operate outside of one's preferred style.

Additionally, it is not only individuals who may be more adaptive or more innovative in their problem-solving style. More adaptive or innovative organizations, units, or groups within organizations create a cognitive climate that privileges a particular problem-solving style. In every organization—formal or informal—the problem-solving style mean for the group can be determined based on the formation of individuals' problem-solving styles within the group. Assuming that each individual is an agent of change (AC_1), the cluster of individuals that hover 10 points more adaptive and 10 points more innovative around the group mean more easily form a consensus group, which, in A-I theory, designates the Agents of Change Two group (AC_2), or the consensus group (Kirton, 2013). Outside of this "in-group," which often has the largest number of individuals (assuming a normal distribution), are the out-group members, who are either more adaptive or more innovative than the consensus group. These individuals are called the Agents of Change Three groups (AC_3; Kirton, 2013, see Figure 1). Consensus groups may find it easy to overlook ideas from others, as they tend to think more alike with respect to problem-solving style, and have power in numbers. However, problem-related ideas and structural elements (e.g., strengths and weaknesses) internal to the organization are likely to be identified by the more *adaptive* AC_3 group, and those related to opportunities or threats external to the organization are likely to be found in the more *innovative* AC_3 group (Kirton, 2011). Empowering members of those "out-groups" to share ideas and going to those groups for input as due diligence, is valuable practice.

AL THEORY

AL is a prescriptive framework for leaders engaging followers in advancing their organizations through a changing environment (Heifetz et al., 2009). Though the conceptual foundations of AL have been developed by several theorists (e.g., Bennis, 2003; Yukl & Lepsinger, 2002), it was first described by, and most closely associated with, Heifetz and colleagues (e.g., Heifetz et al., 1991, 2009; Heifetz & Laurie, 1997; Heifetz & Linsky, 2017).

The AL framework evolved from situational, transformational, and complexity leadership theories (Cojocar, 2009). It combines practical directives for the collectivistic-minded leader with an organizational perspective informed by complex adaptive systems theory (Northouse, 2022; Uhl-Bien et al., 2007). Where most leadership theories focus on motivation, inspiration, and greater productivity, AL focuses instead on the roles

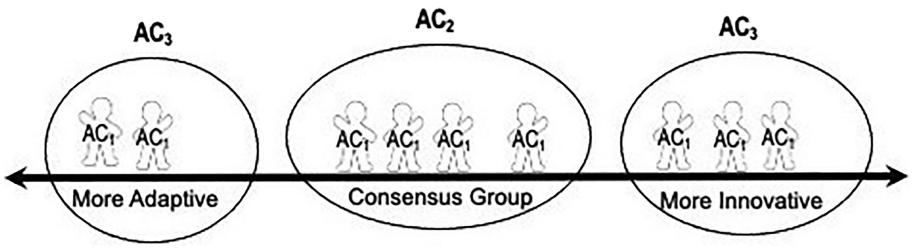

Figure 1 Agents of Change in Adaption-Innovation Theory

Note. Each individual is an agent of change (AC_1). Individuals are in the consensus group (AC_2), if they are within 10 points more adaptive or more innovative than the mean problem-solving style. Individuals more adaptive or more innovative than the consensus group form outsider groups (AC_3)

of leaders and followers in facilitating social learning to help organizations adapt in a rapidly changing environment. The AL framework draws heavily on Darwinian evolutionary theory to explain its process to address adaptive challenges. For example, organizations have "DNA" (i.e., values, purposes, processes, and other cultural factors) that must evolve if the organization is to thrive (Heifetz et al., 2009). This DNA can render an organization better or worse suited to its environment. Changing organizational DNA is the primary focus of the leader in AL. Consequently, AL eschews the typical focus on the leader and their supposed special traits, skills, or competencies. Instead, AL emphasizes the activities of the leader in relation to the work of the followers within the context of a system—particularly with regard to helping the organization rearrange its DNA to continue to thrive (Northouse, 2022).

At the center of AL is the distinction between adaptive and technical challenges (Heifetz et al., 2009). Technical challenges can be difficult and complex, yet the organization has already evolved to address them. With technical challenges, the problem is clear and there is a known solution. There is an existing authority or expert the organization can authorize to address the problem. That person or group—acting within their authority—will clearly define the problem for followers and offer known solutions, often simply solving it for them. The authority figure's role is to protect the organization from threats, remind people of their current roles, restore order, and reinforce the organization's norms. Since the organization has evolved to address these types of problems, successfully addressing them is a matter of activating known solutions and reinforcing the roles and cultural norms that have served the organization well in the past (Heifetz et al., 2009).

Adaptive challenges, in contrast, require the organization to adapt to thrive in a changing environment (Heifetz et al., 2009). Adaptive challenges are unclear and require learning even to define the problem. Solutions require learning and stakeholders must change their values, purposes, processes, or cultural norms to rearrange their organizational DNA. With adaptive problems, the role of the leader differs as well. Because there is no known solution, the adaptive leader facilitates social learning by framing key questions for stakeholders to answer. Because the adaptive problem is an unclear threat, without a known solution, adaptive leaders make the organization aware of the threat. Because stakeholders' current roles and norms are likely unhelpful in addressing the adaptive problem, the adaptive leader resists stakeholders' desires to revert to their existing roles and norms. Lastly, because stakeholders must perceive a need for change before any adaptation can take place, the adaptive leader allows conflict to emerge and, in many cases, actively seeks to surface it in an effort to foster adaptation (Heifetz et al., 2009).

Adaptive challenges are inherently disruptive to the status quo and cause disequilibrium in an organization. They require people to upend their routines, question their values, and shift priorities (Heifetz et al., 2009). Disequilibrium can elicit fear, frustration, panic, confusion, and conflict among stakeholders in an organization (Heifetz et al., 2009). Heifetz et al. (2009) wrote that adaptive leaders "need to be able to do two things: (1) manage [themselves] in that environment and (2) help people tolerate the discomfort they are experiencing" (p. 29). Adaptive leaders must manage disequilibrium in order to effect change. Disequilibrium can be both individual and collective; it is the "byproduct generated when you call attention to tough questions and draw people's sense of responsibility beyond current norms and job descriptions" (Heifetz et al., 2009, p. 29).

To help adaptive leaders manage disequilibrium, Heifetz et al. (2009) highlighted the potential for a PZD (Figure 2). PZD is a narrow zone where enough disequilibrium exists to gain attention, engagement, and forward progress (i.e., threshold of change), but not so much disequilibrium that the organization explodes, or stakeholders shut down and dig in their heels (i.e., limit of tolerance). Stakeholder resistance to disequilibrium and adaptive change is both common and varied, which makes facilitating PZD particularly difficult.

Adaptive problems are addressed inside a physical and psychological space known as the HE. A HE "is a space formed by a network of relationships within which people can tackle tough, sometimes divisive questions without flying apart" (Heifetz & Linsky, 2017, p. 102). HEs can be a "physical space, a shared language, common history, a deep trust in an institution and its

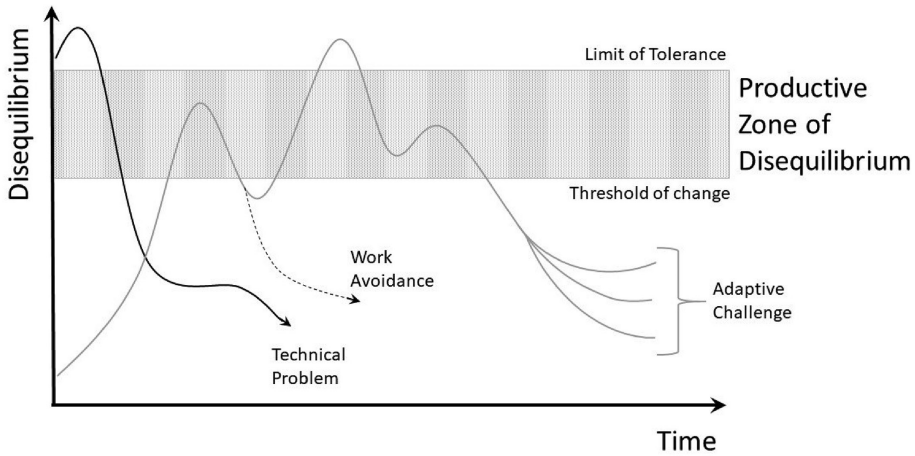

Figure 2 The Productive Zone of Disequilibrium (Adapted from Heifetz et al., 2009)

authority, or a clear set of rules and processes that allow groups to function with safety" (Northouse, 2022, p. 265). The HE is analogous to a pressure cooker, and disequilibrium is analogous to heat. The more substantial the pressure cooker, the greater the heat it can handle. Similarly, the greater the HE, the greater disequilibrium it can endure while addressing adaptive change (Heifetz et al., 2009).

Putting It Together

Both A-I theory and AL share similar vocabularies surrounding the concept of adaption. "Both are concerned with how individuals and groups solve varying types of problems and navigate change, but one emphasizes individual differences in problem-solving style while the other prescribes a series of leader/group processes" (Cletzer et al., 2021, p. 10). Although the terminology may be difficult to separate, the frameworks can be complementary. If AL provides the prescription for a problem-solving process, A-I theory helps explain why the process may be effective—and why the same process with a different group of people may be ineffective. Perhaps more importantly, A-I theory provides insight on how to leverage cognitive diversity in the process, including key considerations for forming and maintaining a HE that facilitates a PZD.

When facilitated appropriately, a HE allows for a PZD; and the potential of the PZD is directly influenced by the cognitive diversity of the group within the HE. If everyone within the group tends to be more adaptive in their preferred problem-solving style, the PZD will be characterized by more attention to existing structures and the potential for incremental changes. In contrast, if everyone within the group tends to be more innovative in their preferred problem-solving style, the PZD will be characterized by more attention to options that will likely be more tangential to the current structures. If those in the HE reflect a wide range of problem-solving styles, it may be more challenging to maintain the HE given the various preferences to solve in dissimilar ways; yet the diversity of problem-solving styles may promote more learning from each other which is critical to the success of AL (McCarthy, 2021).

Because adaptive challenges require change beyond current practice, it is reasonable to assume the agents of change within the consensus group will be limited by their preferred problem-solving styles and would benefit from engagement with those who are more adaptive or more innovative (Figure 1). Accordingly, part of the challenge of AL is to expand the HE to encompass a broader array of problem solvers. Of course, involving a more cognitively diverse group is likely to surface more divisiveness and other challenges, when the ultimate focus of the work needs to be on solving the original, adaptive challenge. The leader who understands both their positionality as it relates to the consensus group, and that problem-solving style informs conceptualization of the problem, will allow for strategies that maintain the HE and be able to keep the organization in an effective PZD more often.

As highlighted by Cancialosi (2014), thriving within disequilibrium involves four priorities: (a) understand your role as a leader; (b) identify what works and what does not; (c) constantly push against the status quo; and (d) find balance in the unstable. Knowledge of A-I theory can help with each of these priorities because it highlights the importance of maintaining a HE which is inclusive of a variety of problem-solving styles. For example, those on the more adaptive side of the A-I continuum may be reluctant to abandon systems that have worked well in solving technical challenges, while those on the innovative side of the A-I continuum may be too quick to abandon these same systems. When problem solvers on both ends of the spectrum are able to work together in the HE, with mutual respect, they can identify solutions that maximize the cognitive diversity of the team.

Conclusion

Applying AL with knowledge of A-I theory does pose considerable promise to improve AL practice. AL practitioners may be even more effective in establishing an HE and creating a PZD by recognizing how problem-solving style informs conceptualization of the problem at hand, whether the issue is an adaptive or technical challenge.

The cognitive climate in an organization likely impacts how the problem is perceived within the HE. Yet, empirical exploration is needed to identify if a more adaptive (as defined by Kirton) cognitive climate trends toward more technical solutions or a more innovative cognitive climate toward more adaptive (as defined by Heifetz) solutions. If so, a leader's role, responsibility, and strategy for establishing an HE could change depending on the cognitive climate.

The PZD is a narrow range of disequilibrium between the "threshold of change," where stakeholders feel motivated to address the adaptive problem, and the "limit of tolerance," where adaptive work begins to break down due to too much disequilibrium in the system. The limit of tolerance is largely dictated by the strength of the HE, and the strength of the HE is determined by social bonds, such as shared language, common values, perception of past success, lateral bonds of affection, and vertical feelings of trust in the institution (Heifetz et al., 2009). According to A-I theory, individuals prefer more or less structure, and social bonds (e.g., values, relationships, and social norms) are a type of structure. It follows, then, that more innovative and more adaptive individuals may perceive the HE differently and respond to it differently.

A more adaptive individual, who prefers more structure associated with existing accepted values, relationships, and social norms, might contribute to strengthening the HE; however, if these same values, relationships, and social norms must loosen in order to solve the adaptive challenge, the same preferences that strengthen the HE may slow the adaptive work. Conversely, a more innovative individual may have less regard for structures associated with accepted values, relationships, and social norms, which would serve to undermine the strength of the HE; however, if some values, relationships, and social norms must loosen in structure in order to solve the adaptive challenge, the same preferences that undermine the integrity of the HE may quicken the pace of adaptive work. Ultimately, a wide range of problem solvers in an HE to solve adaptive challenges is needed. Understanding others' perspectives will allow leaders to better facilitate adaptive work, balancing the strength of the HE with the need for productive disequilibrium to drive change.

References

Adams, J. A., Bailey, D. E. Jr., Anderson, R. A., & Thygeson, M. (2013). Finding your way through challenges in the ICU using adaptive leadership behaviors: A qualitative descriptive case study. *Intensive and Critical Care Nursing*, *29*(6), 329–336. doi: 10.1016/j.iccn.2013.05.004

Bennis, W. (2003). *On becoming a leader*. Peruses Publishing.

Cancialosi, C. (2014, July 28). Today's leaders must learn to thrive in disequilibrium. Forbes. https://www.forbes.com/sites/chriscancialosi/2014/07/28/todays-leaders-must-learn-to-thrive-in-disequilibrium

Cletzer, D. A., Seibel, M. M., Kaufman, E. K., Friedel, C. R., & Elliott-Engel, J. (2021). When leadership terminology collides: A spirited comparison of adaption-innovation theory and adaptive leadership. In *Association of Leadership Educators 2021 virtual annual conference proceedings*. (pp. 10–15). Association of Lead-

ership Educators https://www.leadershipeducators.org/resources/Documents/ALE%202021%20Proceedings%20Final.pdf

Cojocar, B. (2009). Adaptive leadership: Leadership theory or theoretical derivative? *Academic Leadership: The Online Journal*, *7*(1), 5.

DeRue, D. S. (2011). Adaptive leadership theory: Leading and following as a complex adaptive process. *Research in Organizational Behavior*, *31*, 125–150. https://doi.org/10.1016/j.riob.2011.09.007

Heifetz, R. A. (1994). *Leadership without easy answers*. Harvard University Press.

Heifetz, R. A., Grashow, A., & Linsky, M. (2009). *The practice of adaptive leadership: Tools and tactics for changing your organization and the world*. Harvard Business Press.

Heifetz, R. A., & Laurie, D. L. (1997). The work of leadership. *Harvard Business Review*, *75*, 124–134.

Heifetz, R. A., & Linsky, M. (2017). *Leadership on the line: Staying alive through the dangers of change*. Harvard Business Press.

Heifetz, R. A., Sinder, R., Jones, A., Hodge, L., & Rowley, K. (1991). Teaching and assessing leadership courses: Part 1. *Phi Kappa Phi Journal*, *71*(1), 21–25.

Kirton, M. J. (1976). Adaptors and innovators: A description and measure. *Journal of Applied Psychology*, *61*(5), 622–629. https://doi.org/10.1037/0021-9010.61.5.622

Kirton, M. J. (2011). *Adaption-innovation: In the context of diversity and change*. Routledge (Original work published 2003).

Kirton, M. J. (2013). *KAI theory workbook*. KAI Distribution Centre.

McCarthy, A. (2021). *Adaptive leadership: Making progress on intractable challenges*. Harvard Medical School, Trends in Medicine https://postgraduateeducation.hms.harvard.edu/trends-medicine/adaptive-leadership-making-progress-intractable-challenges

Mugisha, S., & Berg, S. V. (2017). Adaptive leadership in water utility operations: The case of Uganda. *Sustainable Water Resources Management*, *3*, 171–179. https://doi.org/10.1007/s40899-017-0092-9

Northouse, P. G. (2022). *Leadership: Theory and practice*. (9th ed.). SAGE Publications.

Priest, K. L., & Middleton, E. (2016). Exploring leader identity and development. *New Directions for Student Leadership*, *2016*(149), 37–47. https://doi.org/10.1002/yd.20160

Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era. *The Leadership Quarterly*, *18*(4), 298–318. https://doi.org/10.1016/j.leaqua.2007.04.002

Yukl, G., & Lepsinger, R. (2002). *Why flexible adaptive leadership is essential for organizational effectiveness*. University at Albany (SUNY).

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