An Overview of Adult Cognitive Development Research and Its Application in the Field of Leadership Studies

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The field of leadership development has suffered from a behavioral training approach. Bringing an adult cognitive developmental perspective to the field offers new possibilities. However, proponents of this approach often still find themselves on the margins of research and application in the field. This article provides an overview of how research and practice at the intersection of these two fields has progressed with some discussion of how it appears in relation to the larger field of leadership discourse. There is a brief survey of some of the more well-known approaches to applying adult development models to leadership development. To illustrate this, an example from client work done from this approach is highlighted in terms of some preliminary research on the impacts on leadership skills from utilizing an adult developmental model for leadership development programs. Concluding remarks identify the need to take advantage of more widespread practitioner application to further research in the field.

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There is no end to the calls for better leaders and leadership (Warrick, 2011). Although in the past, leadership was considered to be the domain of great men who were born to lead (Northouse, 2001), today "there is little doubt that leadership education and development has become a big business" (Pfeffer, 2011. p. 220) with more than $170 billion being spend on leadership curriculum in U.S. businesses (from the American Society for Training and Development, in Myatt, 2012). Despite all these resources being spent, building leadership talent was identified as a significant challenge in the 2008 IBM Global Business services report (in Day, Harrison, & Halpin, 2009).

In this light, the current approaches dominating leadership curriculum can be seen as actually contributing to the gap between the need for leadership and the talent available. This article proposes an alternative, taking an adult cognitive developmental approach to leadership development. Based on two decades of study and practice, I present a perspective on the state of how the field of adult cognitive developmental approaches can contribute to improving the state of affairs in leadership development. This includes two vignettes and some opening reflections, some background on theory in the field of leadership studies, a survey of what I have encountered as substantive research at the intersection of adult cognitive development theory and leadership/management studies and some applications that I am familiar with. In addition, to illustrate this work in more depth, I also present a story and analysis from an application and research I have been involved in. I then briefly survey companies applying adult cognitive development in practice and mention some tools associated with the field as well.

To give a feeling for how adult cognitive developmental theory is perceived within the mainstream field of leadership studies, I present two short vignettes. During the 2011 International Leadership Association conference in London, I heard a report from a fellow attendee about a panel of renowned experts in the field discussing their views on the future of leadership studies. He shared how someone had asked the panel about their views on the use of devel-

opmental theory in relation to leadership and its cultivation, and the response from the panel was that although the ideas appeared promising, there was simply not yet enough research to support taking it seriously. This attendee had also been in my presentation just prior to the panel and responded to the panel saying that they should have been next door earlier to hear about how I, along with my corporate colleague, had been presenting on our application and preliminary research on a new leadership development program informed by developmental theory (Reams & Johannessen, 2011).

Another more recent example of how this work is perceived in the field of leadership studies came from some correspondence with a colleague writing up a review of leadership development literature for a mainstream publication. He had drawn on a rich range of research in developmental theory in the review, yet the relevance of it was not apparent to reviewers. He wrote to me that:

> We had to really argue and convince the reviewers to keep the developmental theory section in the paper, but in a much abbreviated form. Apparently, the reviewers thought that material was tangential to the leadership development focus of the paper. So we had to tighten it up quite a bit and argue for its relevance before they agreed (somewhat reluctantly) to let us include that section. (personal communication, August 19, 2015)

Although it is possible to come up with many reasons why this kind of experience occurs (e.g., "They just do not get it" and "they are threatened by the idea of hierarchical development"), it points to a general lack of solid standing for the use of adult cognitive developmental theories in the field of leadership studies.

This brings up the question of what constitutes "research" that can be taken seriously by mainstream experts? Many of us reading in journals like this one know that there has been substantial research and application of developmental theory to issues of leadership for almost 30 years, for example: Day et al. (2009), Day and Zaccaro (2004), Eigel and Kuhnert (2005), Harris and Kuhnert (2008), Kuhnert and Lewis (1987), Lucius and Kuhnert (1999), Rooke and Torbert (2005), Rooke and Torbert (1998), Strang and Kuhnert (2009), Torbert (1991), Torbert and Associates (2004). Yet how this research is perceived in the broader leadership research community is summarized in the review done by McCauley, Drath, Palus,

O'Connor, and Baker (2006) in *The Leadership Quarterly*, the top journal in the field. They found "mixed support" (p. 634) for claims that a leader's stage of cognitive development impacts their leadership effectiveness and noted a number of limitations in the research they reviewed. They also noted that in order for this approach to "have a greater impact on the leadership field, constructive–developmental theory needs to generate more robust research, to link more clearly with on-going streams of leadership research" (p. 634). Thus there is work to be done and the intention of this article is to contribute to this by bringing together a number of strands of work in the field and present them to a broader audience.

In this article I present a brief overview of the history of leadership theory, what I have encountered as substantive research at the intersection of adult cognitive development theory and leadership/management studies, some applications that I am familiar with and a story from an application and research project I have been involved in. I also briefly survey companies applying adult cognitive development in practice and mention some tools associated with the field. I hope that this mix of ideas, experiences and reflections provides a useful overview of the opportunities and challenges in further integrating adult cognitive development into this area of social science research and societal application.

Leadership Studies as a Context for Adult Cognitive Development Applications

Readers of this journal are likely already familiar with much of the history of developmental theory. In brief, there is more than 100 years of work in developmental psychology, from Baldwin's (1895, 1906) seminal ideas and how they influenced major figures like Piaget (1932, 1954, 1970) and Vygotsky (1978), carried on through Kohlberg's (1969, 1975, 1984) work on stages of moral development and into a broad range of domain specific theorists such as Perry (1970, 1981); Armon (1984); Selman (1971); King and Kitchener (1994) and Gilligan (1982). Domain general theories are rooted in the work of Fischer's (1980) dynamic skill theory and are complimented by assessment models developed by Commons, Trudeau, Stein, Richards, and Krause (1998) and Dawson (2002; Dawson,

Xie, & Wilson, 2003). In addition, there is a strand of work on ego development with roots in the work of Loevinger (1976), that has been built upon by Kegan (1982, 1994) and Cook-Greuter (1999), among others.

Turning to leadership studies, looking back one hundred years ago, the value of the individual and the role of groups were hotly debated. Although followers of Marx pointed to economic and social class factors in the progression of society and followers of Darwin looked to the nature of biology as a determining factor, William James was defending "the notion that individual human beings can and do make a difference in the course of history" (Harter, 2003, p. 4) and that the study of such individuals is a valuable contribution to leadership. This set the stage for some of the first systematic attempts to study leadership in the beginning of the 20th century, and contributed to the development of trait theory, also known as the "Great Man" theory, or the heroic model of leadership. It posited that by identifying the innate qualities and characteristics possessed by great social, political, and military leaders, one could find appropriate kinds of people to hold the reins of power (Northouse, 2001).

As time went on and people examined the trait approach to leadership theory and application, its limitations became more apparent. For one thing, the growth of business in North America and elsewhere led to an increasing need for people in positions of management that entailed leadership capabilities, and there were not enough "Great Men" to go around. This led to the development of a style approach which conceptualized leadership as a "form of activity" and focused on what leaders do and how they act. As the style approach developed over time, it identified two broad categories of leader behavior; task and relationship. It was presumed that prospective leaders could be trained in these behaviors, leading to the current focus in the field of leadership training today.

Although this move from trait to style still primarily focused on the individual, others were looking at the role of group dynamics in leadership. A definition that emerged in the 1930s stated that "leadership is personality in action under group conditions. . . . It is also a social process" (Rost, 1991, p. 47). Rost (1991) describes how during the 1930s the influence of sociologists helped researchers recognize that leadership had a huge relational aspect—that leaders did not lead in a vacuum, but that they were dependent on the group. This group dynamic view of leadership continued to gain prominence during the 1940s and 1950s, in part fueled by the impact of the famous Hawthorne studies.

As the study of leadership progressed, the limitations of trying to explain all leadership through theories that emphasized either the individual or the group became apparent to some researchers. Blanchard and Hersey (1970) developed the situational approach to leadership theory in the late 1960s. This approach was based on the premise that different situations demand different kinds of leadership (Blake & Mouton, 1964). In the situational approach, a leader assesses the development level of subordinates and matches his or her leadership style (a mix of directive and supportive elements) to the subordinates needs in the particular situation.

Other leadership theories have emerged over the past 40 years or so that looked for ways to better address the increasing complexity of the topic as researchers kept questioning the gaps between existing theories and experience. These included leader member exchange theory, contingency theory, path–goal theory, psychodynamic approaches and emotional intelligence (Goleman, 1995; Goleman, Boyatzis, & Mc-Kee, 2004). The concept of transformational leadership was introduced by Burns (1978) and is concerned with inspiring or motivating followers to achieving higher levels of moral conduct and value based actions. Greenleaf's (1977) notion of servant leadership has also had an influence on leadership theory. Heifetz's (1994; Heifetz, Grashow, & Linsky, 2009) model of adaptive leadership has also had significant impact on both theory and practice.

Looking at all of these theories about leadership, we can say that most of them have been grounded in an ontological, tripod framework involving a leader, followers and a common goal (Bennis, 2007). The Center for Creative Leadership (CCL) have attempted to address the limitations of this by proposing an approach that is grounded in a process orientation (Drath et al., 2008) where leadership is seen apart from leaders, or people in specific positions and roles. The tripod is replaced with three process oriented activities that can arise from anywhere in

an organization; direction, alignment and commitment.

Yet for these processes to be engaged, individuals must have the capacity to perceive, interpret and act within an organizational system. It is this very capacity that is relevant to the focus of applying adult cognitive development theory to leadership. For instance, Day and Dragoni's (2015) current review of leadership development research identifies four key indicators necessary for leadership development; leadership self-efficacy, self-awareness, leader identity and leadership knowledge, skills and competencies. Work over time in these areas can lead to outcomes such as having more dynamic skills (proximal effects) as well as more adequate levels of complexity of meaning making structures and processes (distal effects). It is within these distal effects that developmental approaches to leadership development are positioned as it is widely acknowledged that shifts in the structures of cognition are long term processes, not short term fixes.

Palus and Drath (1995) distinguish between training programs that impart new skills (proximal effects) and development programs, which question and stretch existing ways of making sense of oneself and one's work. In terms of leadership as *development*, McCauley et al. (2006) outline how constructivist developmental theory can be used to understand key factors in leadership development. They note that Kegan (1980) first introduced the term "constructive developmental" as a way of describing "a stream of work in psychology that focuses on the development of meaning and meaning-making processes across the lifespan" (McCauley et al., 2006, p. 635).

Examining the future of leadership development, Petrie (2011) identified personal development, especially in terms of vertical development, individual ownership of growth and greater focus on collective leadership (p. 6) and called for a "greater focus on innovation in leadership development methods" (p. 7). In a report examining implications of the evolving web on leadership, (McGonagill & Doerffer, 2010) the authors found a need for a new paradigm of leadership that focused on higher levels of personal development. These are examples of a growing focus on moving from behavior training and external competencies to developing the personal growth and inner competencies re-

quired of leaders. Scharmer (2002) talked about this as the "blind spot" of leadership, or the source from which we lead. This source, and how it deploys in our leadership activities has been researched in recent times in terms of cognitive development (Day et al., 2009; Kegan & Lahey, 2009; Torbert & Associates, 2004), social emotional intelligence(Goleman, 1995; Goleman et al., 2004), or even spiritual intelligence (Zohar & Marshall, 2000).

Along this line, Day et al. (2009) provide an example of a comprehensive attempt to build good theory about leadership development. Their work integrates adult cognitive development theory with research in the areas of leadership identity and expertise to put forward an approach to leadership development that they believe can "apply to leader development across a wide spectrum of organizations" (p. 4). To accomplish this, they note that leadership development implies growth, or change over time and "includes topics such as personal trajectories, growth modeling, lag times, end states, and a whole host of other related topics. . . . An integrative theory of leader development has to be as much about development as leadership" (p. 5). Drawing on Fischer's (1980) dynamic skill theory, they discuss a systemic view of this and talk about development in terms of "a web with different strands that have varied development trajectories depending on different contextual influences" (p. 220). Day et al. note that it is more important to focus on developing the supporting issues, or structures, that enable competency acquisition. These are noted as leader identity formation and at a yet more fundamental level this process of identity formation is supported by adult development. They note that "adult development is driven much more by experience than by biology" (pp. 213–14) and propose that "the development of complex multifaceted leadership competencies is supported by a web of adult development that is dynamic and nonlinear in nature" (p. 221). The result is a complex, systemic and dynamic view of how to support leader development over the course of an entire lifetime.

A Brief Survey of Adult Cognitive Development in Leadership Studies

This overview of the larger context for how the field of leadership studies is relating to the

idea of adult cognitive development provides a basis for focusing in more depth on specific research, tools, models and applications in the field. This section provides examples of some of the most prominent work in this area and describe some recent research.

In recent years, a few researchers have begun to apply constructive developmental theory, primarily in terms of shifts in structural stages of meaning making, or ego development, to management and leadership research. Much of the work in this area was pioneered by Torbert and Associates (2004) as well as the work of Kegan (1994). Others, such as Joiner and Josephs (2007), Day (Day et al., 2009; Day & Zaccaro, 2004), and Kuhnert and colleagues (Eigel & Kuhnert, 2005, 2016; Harris & Kuhnert, 2008; Kuhnert & Lewis, 1987; Lucius & Kuhnert, 1999; Strang & Kuhnert, 2009), have also contributed to understanding the relationship between leadership development and structural orders of meaning making. Primary findings center around the increases in effectiveness that arise from greater cognitive complexity and emotional maturity.

One example is from Rooke and Torbert (1998), who studied attempts at organizational transformation in 10 companies in relation to the stage of ego development of either the CEO and or a consultant working extensively with them in the process. They found a very strong correlation between stage of ego development and success in these organizational transformation processes. Five CEOs measuring at late or postconventional stages of ego development "supported 15 progressive organizational transformations" (p. 11). In contrast, the five CEOs at earlier or conventional stages "supported a total of 0 organizational transformations" (p. 11).

Kuhnert and colleagues' work provides more evidence of how this relationship can impact relevant aspects of leadership. One study involving military academy cadets (Lucius & Kuhnert, 1999) found that constructive developmental stage "development correlated significantly with score on the Defining Issues Test (DIT) of moral development, peer rating from fellow cadets, and summarized performance across a variety of military and extracurricular activities" (p. 73). Another study (Harris & Kuhnert, 2008) found that stage development, conceived as leadership development level,

"predicted leadership effectiveness using the 360-degree feedback measure across a number of sources including superiors, subordinates, and peers" (p. 47). They also found it predicted increases in effectiveness in a number of other specific leadership competencies. Strang and Kuhnert (2009) extended this research to include the possibility of differentiating it from the effects of personality on leadership effectiveness. They found that leadership development level "appears to capture an aspect of leadership distinct from and above-and-beyond that which is attributable to personality" (p. 432), although the effects were not so large to be able to make bolder claims that would make more substantial inroads on the larger leadership discourse in general.

Looking at a more recent example of how research in this field is evolving, Vincent's (2014) PhD dissertation, *Evolving consciousness in leaders: Promoting late-stage conventional and postconventional development,* examined factors involved in how a developmentally informed civic leadership program in Australia facilitated stage development. She was able to draw on sample sizes of 374, 355, and 84 for three studies using Loevinger's Washington University Sentence Completion Test (Hy & Loevinger, 1996; Loevinger & Wessler, 1970) in conjunction with the Myers-Briggs Type Indicator (MBTI; Briggs Myers & Myers, 1980). In one study, Vincent found that, as scored on the MBTI, "a preference for intuition was associated with significantly higher consciousness development" (p. v). In another, the program offered "experiences that are interpersonal, emotionally engaging, personally salient and structurally disequilibriating for later consciousness stages" and that the program was "successful in facilitating consciousness development within the conventional stages" (p. vi). This research supports exploratory findings by Susing and Cavanagh (2013), who examined how personality factors as understood in the five-factor model (or the Big 5) intersect with developmental coaching.

Fuhs (2016) has done research on how a program for leaders in a large Canadian city using the Lectical Decision-Making Assessment was able to foster growth in this specific skill area. This study included 600 civic leaders with multiple assessment times, allowing for a complex statistical analysis of specific relation-

ships between different factors involved in the program and assessment scores over time. Results of this research helped to reveal the complexity of relationships between cognitive complexity and perspective taking, seeking and coordination.

This micro level analysis can be viewed as how to influence the proximal impacts of leadership development work. Other proximal indicators of leader development include things such as self-views (e.g., leadership self-efficacy and self-awareness) as well as leadership skills and competencies. This can be contrasted with longer term, distal contributions to leadership development described by Day and Dragoni (2015), such as leader identity, seen more in terms of what has been described above as the longer term shifts in structural stages of ego development. Going forward, it is important that both of these aspects are addressed in leadership development work.

The Movement into Practice

The readers of this journal are likely familiar with the details of the stages of adult developmental models, so they are not in focus here. What is often of more interest is moving from understanding how to describe stages of adult development to learning how to facilitate it. For example, in their survey of this research, McCauley et al. (2006) identify a need for moving beyond a focus on "developmental order to include the general dynamics of developmental movement" (p. 648). As one example of this, Sammut (2014) applied Mezirow's (1990) seminal work in the field of transformative learning to coaching, concluding that the coaching process can help clients learn more effectively if a transformative learning process was employed. The journey through these orders of structuring meaning, (and by implication, how one perceives, interprets and acts in their role as a leader), utilizes critical reflection on deeply held frames of reference, or assumptions. This can be experienced as having rational as well as intuitive or emotional components.

Integrating Mezirow's (1990) 10 steps for transformative learning and Kegan and Lahey's (2009) Immunity to Change (ITC) process, major steps along this journey can be described as including; encountering disorienting dilemmas, being able to reflect on and inquire into their underlying sources, exploring options for testing the validity of assumptions, gathering data on such tests, building new frames of reference and enabling new orientations, attitudes and behaviors. Palus and Drath (1995)

> argue that well-designed development programs provide individuals with significant experiential lessons that cause a temporary disequilibrium in their meaning-making system. The individual's attempt to deal with such disequilibrium opens a window, however briefly, into new ways of making sense of their experiences. This glimpse of new possibilities creates the potential for development after (sometimes long after) the program is completed. (As cited in McCauley et al., 2006, pp. 641–42)

It is from this developmental orientation that a case study of one program is described below in more depth, along with an illustration and analysis of the effects of the program on one participant. Informing this case study, one of the highest leverage activities for developing leadership capacity is conceptualized as being able to enable leaders to take a perspective on their "internal operating systems." These self-systems are made up of layers of structures of interpretation, meaning making and the ordering of experience that goes on inside of us. Learning how to "get on the balcony" or take a perspective on this operating system involves examining what has previously been unconscious, habitual, or assumed. These elements determine the range and depth of choices and behaviors available to leaders, which can be unpacked in layers as we evolve our perceptual capacities through developmental stages.

The limits in our internal operating systems inhibit leadership effectiveness (Anderson, 2006; Anderson & Adams, 2016) and show up as reactive tendencies. These reactive tendencies resist the use of willpower to change in most circumstances, and can be conceived of as a psychological "immune system" (Kegan & Lahey, 2009). Kegan's (1994) understanding of the challenges of adult cognitive development and the process of subject object relations provides the basis for exploring the process of unlocking leadership potential by shifting the relationship to the assumptions underlying these immune systems. In this sense, the adaptive challenges (Heifetz et al., 2009) that stretch us and evoke these elements can reveal to us the limits of our internal operating system and how it is impacting the effectiveness of our leader-

ship. Handled in a conscious way, they can be consciously utilized to foster development (Kegan & Lahey, 2016; Kegan, Lahey, Fleming, & Miller, 2014).

In addition, the field of coaching has seen an increased use of developmental theory (Elliott, 2011; Markus, 2016; Pinkavova, 2010; van Diemen van Thor, 2014) with the use of Kegan and Lahey's (2009) ITC process being prominent in much of this work. The specific focus in the case study presented below is to inquire into the application of the theory and conceptual understanding behind the ITC process as an exemplar of the nature of practices to facilitate cognitive developmental growth for leadership.

Case Study of One Application

The research presented here is connected to the design and delivery of a leadership development program, Developing Your Leadership (DYL) for a multinational engineering and manufacturing company involved in the offshore oil and gas equipment supply industry. Ongoing research on this program (Reams, Gunnlaugson, & Reams, 2014; Reams & Johannessen, 2011; Reams & Reams, 2013, 2015) has been supported by the company providing access to data in multiple settings. The current version of this program has been running since 2011 and by the end of 2015 approximately 400 leaders had participated.

The program design covers three modules (3, 2, and 2 days). Along with these three modules, participants receive 360 feedback utilizing The Leadership Circle (TLC) which links limiting underlying assumptions and personality traits to well researched leadership competencies and behaviors (Anderson, 2006; Anderson & Adams, 2016). This feedback enables deeper entry points into the coaching conversations, which in this program consisted of eight sessions that are based on coachees' TLC profiles and ITC tools and processes for enhancing self-awareness, transformative learning and developmental growth. (For those unfamiliar with the ITC process, you can find a brief overview in Reams, 2009, or in Kegan and Lahey, 2001, 2009). Using this structured process allows participants to discover competing commitments and assumptions that are roots of the limitations of their leadership effectiveness in relation to a specific issue they have identified with the help of their 360 feedback.

Further work is then done through the individual coaching to assist leaders in effectively continuing to gather data on their internal operating system, as well as communicating and acting on insights gained. From the perspectives gained at this point, leaders are introduced to exercises to enable them to distinguish adaptive challenges from technical problems, (Heifetz, 1994, 2010; Heifetz et al., 2009), a key distinction introduced in the DYL program. The effect of this coaching was explored recently (Reams & Reams, 2015) through interviews with eight coaches involved in the program. The findings revealed a process of movement from embeddedness in identifying with their reactive tendencies and a tendency to display characteristics of a socialized mindset toward detachment from their reactive tendencies and evidence of an emerging self-authoring mindset.

Illustration and Analysis

What follows is an illustration of the impact this program had on one participant, followed by a simple analysis through a developmental lens. The aim is to look at the progression in the how his arguments showed evidence of a wider perspective on matters than in earlier statements. The results from the observation of a number of program cohorts showed a wide range of individual participant processes over time, ranging from total resistance to holistically and insightfully experiencing and tracking the aims and intentions of the program, leading to internalizing new patterns of behavior. This exemplar is broadly representative of the kinds of processes that went on in many participants in the program. It has been chosen because it exemplifies a number of key elements of the impact of the program.

Espen (a pseudonym has been used for anonymity) was a participant from a cohort in Oslo. He spoke up a lot and appeared quite self-confident in the first module of the DYL program. This led to him volunteering to publicly go through his immunity to change process, and gave us good data on how he articulated his internal processes. The main concern he presented to work on was that he was not delivering on his tasks. In particular, he was working with his issue about always providing an open

door for his employees to come into his office with their problems. They did come to him, with the result that he was not finding the time to deliver on many of his own tasks.

Through the immunity to change process he had created a metaphor where he described his employees as entering the office with monkeys on their back, then taking the monkeys off their back and giving them to Espen. He ended up with a zoo in the office that he then had to attend to.

He admitted that he somehow felt annoyed, but that he still wanted the monkeys because it gave him a feeling of control. "Ja, it comes from me!" he said at one point, realizing that he had invited it in, because he wanted that control.

Realization of his competing commitment gave rise to a disorienting dilemma and a fearful resistance to giving up the interdependent dynamic he had created. It took Espen time to let go of that control and an intense process to work himself through it and embody alternative behaviors. When he saw his role in this dynamic, he had the option to act differently and this awareness allowed him to start taking responsibility for his actions, make new experiences and learn from them, and realize that his competing commitment to control maintained this dynamic.

In the very last check out of Module 3, Espen shared parts of his process and one experience of how he had made a step in relation to his challenge.

> I practiced with my team. We sat in a circle, and I said, "I cannot manage everything now." I made a list. Then I said, "I can help you with that one or that one." That was very good. For the first Time I have the feeling I am delivering things.

From a typical methodology for changing behavior, the way to address such a problem would be to advise Espen on what to do to stop the interdependent cycle. With the developmental approach from the immunity to change process, he was guided through a process of discovering his competing commitments, and this enabled his awareness to grow over time (with the support of coaching), so that he could self-author a solution from a more complex understanding of his internal dynamic.

With the story of Espen in mind, the following section presents a simple analysis of his statements utilizing some of the key theories described above as being central to the program

and using the Lectica model (Dawson, 2001; Dawson, Commons, & Wilson, 2005; Dawson, Xie, & Wilson, 2003). The cognitive complexity of the statements made are broadly assigned to Lectical zones. The range of zones used here starts with advanced linear thinking (ALT; Level 10.5–10.9) and moves into early systems thinking (EST, level 11.0–11.4). The first excerpts came from Espen's public sharing of his immunity change process on the second day of the program.

Espen:	My time goes to listen to others who just want to display their problems. I want to be prepared, but I most of the time listen to others.
Facilitator A:	What do you get from that?
Espen:	I receive a lot of info of what's going on. The cost is I only get a surface not the depth of that. [Reflective pause] Ja, it comes from ME!!! I want to organize my team so they come with solutions.

Espen seems to be torn in two directions, experiencing "competing commitments." He wants to get information and has an open door, yet sees that he stays on the surface and doesn't get his own work done. This displays a tendency to think in linear terms (ALT) when describing two concepts with different qualities, (A) and (B), which are running against each other for him. He holds both concepts but has no good way yet to coordinate or engage both of them. The very moment he acknowledges his dilemma, his internal operating system appears to work at a high speed while *weighing* both concepts (ALT), but not yet *balancing* them (which would indicate more of an EST level of cognitive complexity).

Facing the tension that this dilemma creates in him, he starts to see the nature of not releasing the fearful grip on his need to organize the team. He identifies himself as being responsible, yet at the same time he is defensive about it by justifying his choice, a sign of embeddedness in reactive tendencies. He is not quite at the point where he

might be able to balance the tensions identified. He is currently *subject to* the need to control, (complain) and solve, instead of balance, the tension. Later, the following exchange occurred:

| Espen: | Sometimes I want to say no . . . but the look on their faces. [He makes a puppy face.] |
| Facilitator A: | Say NO more skillfully. NOOOOOOOOOO!!! [Loud, exemplifying the energy necessary.] |

Espen's way of thinking is still linear. His assumption about peoples' facial expressions comes in the way of his decision making process. He seems to consider them and/or what he interprets as an expression of their helplessness (the look they give him) as direct causes (which is a sign of ALT level contextual thinking) for making it impossible for him to make an intervention. His current way of thinking illustrates that he performs at just a functional ALT level as he has so far not yet built the skills necessary to balance the tension and either say no more confidently or have a cleaner approach to this situation in general.

The next section is from the first part of his third column, the "worry box" in the ITC process.

Espen:	It would be a relief if people would not . . . [pauses] well, we have time limits. That's efficient. We want the persons to get started.
Facilitator B:	I think YOU look not efficient in front of people and that's not an option for you, right? [Confronting Espen.]
Espen:	Ja, I want to deliver. I want to get things done too much.
Facilitator A:	If you do not (deliver), then . . . ???? [Gives Espen the time to fill in the rest of the sentence.]

Espen:	. . . then I let myself down and I get upset.
Facilitator A:	Do you fail then?
Espen:	Yes, then I fail.

The fact that he says "I want to deliver. I want to get things done too much" points to an emerging insight about the intensity he wants things done with. But it is also an insight about his approach being too attached to a certain outcome. Nevertheless, it is a sign of progress that he is more aware of it and that he notices the energy behind. He is therefore also at a threshold of possibly rebuilding his understanding of the way he holds the issue. Wanting it "too much" exemplifies his state of cognitive dissonance; the need to deliver versus his fearfully controlling grip on the outcomes.

The statement is multivariable (a = the need to deliver, b = the high intensity need to get things done, c = fear of failure) and might show first signs of an ability to relate variables in an increasingly systematic way when mapping different perspectives. Operating from his current functional level though he regresses to saying ". . . then I let myself down and I get upset. (. . .) Yes, then I fail." Dealing with the tension in this scenario he identifies the interpersonal and especially the personal tension and holds that as *a problem to solve* (dealing with tensions and polarities in ALT).

Going forward, in Module 2 Espen was still wrestling with this tension but he became more and more familiar with deconstructing his previous understanding of the issue. The contextual support of the facilitation and the coaching fostered his ability to successfully design his relationships better and hold different perspectives and variables at the same time.

Moving ahead to the last module, where Espen had now been able to take time to gain insight from observing his own behaviors at work and had gotten coaching support for this, his statements begin to display a slightly more complex level of cognition. This statement comes from early in the third module of the DYL program.

| Espen: | There is something about the Big Assumption. It is not an immediate change but it is about to change. It feels ok. (I now have) More understanding where I am |

coming from. I do not say that I know now, but that I am understanding.

Espen has noticed small changes emerging and can feel good about it. He seems not to be completely sure about the nature of this change though. Nevertheless, he can stand in some unknowingness about it that does not cause distress in him. He understands more, which gives us clues that he has widened his view by boosting his reflective thinking capacity. His detachment from the need to know (but being comfortable with only understanding) illustrates that his approach to truth has evolved to an increasing capacity to think in more systematic ways (EST).

Gradually moving into seeing into the dynamics of his thinking and sensing change occurring, he shows a greater skill in engaging uncertainty and ambiguity. From the need to control and solve tensions (as in how tensions and polarities appear in ALT), his awareness has expanded to understanding more of the underlying patterns (EST). One could hypothesize that the expansion of his repertoire will probably help him build and refine the kind of skills that can engage tensions in a more nuanced way from here. At the end of the day, he said the following.

> Espen: (I have) reflections about how I can empower my colleagues in a way that I can give them the opportunity that they can do for themselves and free up my time that way.

Espen's focus has shifted from justifying the dynamic dependency, fixing problems and micromanaging, to creating a new space; a container for his people to grow into themselves and their roles without him controlling them. This points to EST in relation to leaders' skills in sharing power. He displays a skill to reflect on how he can hold the different dynamics and tensions in a more balanced way. Being better able to reflect on and balance the perspectives and tensions he now offers a solution that everybody will benefit from. His ability to hold the tension appears to have shifted from ALT to EST.

Empowering his employees by giving them the opportunity to do things themselves, Espen

starts to develop another skill; coordinating perspectives. It is still not a skill that has solidified itself but his reflections and greater sense of humility in his approach imply a train of thought that provides a space for it. This displays a shift from the more absolute notion of making the decisions based upon his way of seeing the situation (ALT) to acknowledging limitations of his perspectives and the likeliness to invite input that is a sign of EST.

During the closing statements from participants, (as noted in the story above), Espen made the following statement:

> Espen: I practiced with my team and sat in a circle. I said I cannot manage everything now. I made a list. Then I said I can help you with that one or that one. That was very good. For the first Time I have the feeling I am delivering things.

This might be the first time Espen is applying adaptive leadership skills. His enhanced level of awareness of his old behavioral patterns (and a better understanding of his big assumption) generated insights that allowed him to interpret his experiences in a finer grained and more balanced way.

From looking at the issue as "complicated" and ill-structured (my interpretation, not his words), Espen has started to gradually solidifying a more conscious approach to his behavior. The quality of his reasoning has taken on more "shades of gray" as he describes an event that required new skills and behavior. He actively included others by practicing together with his team and generated a stronger container for balancing options in a way that is beneficial for all of them. His decision making process has moved from *weighing* which option is better (ALT) to *balancing* the options (EST) by inquiring deeper into them than at the previous level of complexity.

This analysis of one participant's journey displays at least some indications of how using a developmental approach enabled the development of new skill levels and changes in behavior. His use of language indicates at least the beginnings of a shift up of one zone in cognitive development. The premise is that if leaders can gain an increase of cognitive functioning in

relation to one specific issue, (or moving up one step in a developmental sequence), this journey will be easier to navigate the next time in relation to another issue. Undertaking this journey numerous times can help to build a broader and more robust foundation for applying a more complex level of cognitive functioning in a wider range of situations.

A Brief Survey of Applications in the Field

The processes described in the above example are not unique and many consultants, informed by adult cognitive development theories could tell similar stories. Although the research and acceptance of this work has had limited uptake in the academic field of leadership studies, there are many practitioners who have been adopting these theories, models, processes and tools. In this section I briefly survey of some of the consulting firms engaged in drawing on this work and putting it into practice.

Much of the application work in this area is done under the label of "integral" approaches, drawing on the popularity of the work of American philosopher Wilber (1996, 2000) and also associated with the growth of the coaching movement. Table 1 illustrates a sample of companies known to this author to be utilizing a developmental approach in some form.

This list covers just a few of the consulting companies drawing on this approach in business. These also often include coaching, although some organizations are specifically devoted to training coaches in a developmental framework. Many of these consulting companies also utilize a variety of assessment instruments that are either measuring or informed by adult cognitive development theories. Although it appears that the use of adult cognitive developmental frameworks is gaining traction in the field of practical application, there are limitations. Many of the instruments for assessing cognitive development can appear to the uninitiated as esoteric. Training in the use of such assessments can be quite demanding (and rightly so, as it is important to ensure quality application in such a powerful and sensitive domain). There is much work to be done to enable better, more user friendly assessments. The idea of establishing rubrics for such use can be one option to bridge the gap between current

Table 1
Developmental Consulting, Coaching and Assessments

Organization	Website
Consulting	
Being First	http://www.beingfirst.com/
The Full Circle Group	https://fcg-global.com/
Clear Impact	http://www.clear-impact.com/
Integral Leadership	http://www.integralleadership.com/
Stagen	http://stagen.com/
Integral Development	http://www.integral.org.au/
The Integral Business Leadership Group	http://www.businessintegral.com/
Meta-Integral	https://associates.metaintegral.org/development
Leaders Institute of South Australia	https://leadersinstitute.worldsecuresystems.com/index.html
Coaching	
New Ventures West	www.newventureswest.com/
Integral Coaching Canada	https://www.integralcoachingcanada.com/
Integral Leadership Coaching	http://www.integralcoaches.com/
Assessments	
Susanne Cook-Greuter's Leadership Maturity Assessment	http://www.cook-greuter.com/
Bill Torbert's Global Leadership Profile	http://www.williamrtorbert.com/global-leadership-profile/the-global-leadership-profile-overview/
Lectical assessments	https://www.lectica.org/
Bill Joiner's Leadership Agility 360	http://www.changewise.biz/?page_id=2237
Ron Cacioppe's Integral Leadership and Management 360	http://www.integral.org.au/services/surveys/integral-leadership-management-360-profile
Bob Anderson's The Leadership Circle	https://leadershipcircle.com/

tools and the mainstream market. This challenge can also provide motivation for the academic study of leadership to also expand its research into how to improve such tools.

Concluding Reflections

Twenty years ago, when I began my formal study of leadership and concurrently began exploring how the development of consciousness could impact leadership, I recall feeling very much alone, searching for pioneers at the intersection of this work. Although in hindsight I can see that there was more going on than I was aware of at the time, the field was in fact sparsely populated and I believe that practice in this area was also relatively immature. Today, it is apparent that much more is going on and that both research and practice is maturing. It has not yet reached the level of broad acceptance by mainstream academia, but it is gaining acceptance more rapidly in the domain of practice.

One of the challenges this presents is that application can sometimes be informed by a more casual use of theory (Ross, 2008) leading to misinformed approaches and possible damage to clients. It is difficult enough to assess the quality of application in the field, and from my experience, most practitioners at this stage of the emerging field are eager to support fellow practitioners with a similar orientation as a way of building up the community of practice. Although this can be a positive move, it can also fall prey to banding together against the prevailing winds while losing sight of a critical eye that can improve practice.

From this knowledge, it is my view that the strategy for going forward and enabling adult cognitive development to make a greater impact on the field of leadership studies involves taking advantage of the opportunities for research that the growth of practitioner applications offers. This would also benefit the community of practice. Currently, researchers looking to work in this field have had to seek out individual supervisors and mentors at institutions and individual applications in the field to study. It is important that high quality research programs with a broader scope and longer term focus be developed, to complement the growing community of practice. Currently, there are no specific universities that I know of which have an explicitly adult cognitive developmental approach to leadership studies.

This potentially synergistic relationship could support both aspects, with the growing use of adult cognitive development in the field providing greater opportunities for research and more research helping mature the field of practice.

Despite current feelings of marginalization within the mainstream field of leadership studies, this brief overview of how adult cognitive development is being applied in research and practice in leadership shows that it is making headway toward gaining influence. Taking a broader view, notions of development, maturation, or growth (whether life span maturation, emotional intelligence, or organizational development to provide to examples), are more widely accepted in the field. My hope is that this trend continues and the communities of practice and research mature sufficiently to realize the potential for this approach to make a difference in the world.

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