Vertical Transformation of Leadership Culture

John B. McGuire[1] & Charles J. Palus[2]

Abstract: This article defines leadership culture and provides a framework for its vertical (aka constructive-developmental, or transclusive) transformation. The idea of leadership culture and its developmental potential has been a key focus of research and practice at the Center for Creative Leadership since the mid-1990s, as CCL began transcending and including its domain of developing individual leaders within an explicitly relational ontology. The Direction, Alignment, and Commitment (DAC) Framework models leadership as a relational process operating at both individual and collective levels, in which beliefs and practices for creating DAC are shown to develop vertically. Collaboration with Bill Torbert and associates has produced a model of leadership culture transformation in parallel with the action logics observed in individual leaders. The second part of this article describes an approach to change leadership via multi-year collaborative inquiries grounded in culture. The Change Learning Cycle integrates three intertwining domains of change: self, cultural beliefs, and systems. Finally, the article outlines the use of a leadership culture toolbox for change leadership initiatives designed for engaging, scaling, and democratizing leadership culture development for everybody, everywhere.

Keywords: Change leadership, interdependent, leadership culture, toolbox, Torbert, transclusive, vertical development.

Introduction

A distinctive feature of our time is that cultures of all kinds are proliferating, splitting, combining, and evolving. The destructive polarizations apparent in society are largely culturally driven. "Culture" used to be a comforting word that implied stability and civic cohesion. Culture has instead become a frightening word amidst the churn of global identity politics. What is the

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solution? We must evolve in ways never before imagined. New and better leadership is required but our 20th century models and techniques of leadership development are insufficient to the challenges. A new paradigm is emerging in which the development of individual leaders is included and transcended by taking *leadership culture* itself as a primary unit of human development. Leadership cultures produce leaders. Polarized cultures produce polarized leaders--usually. A leadership culture is itself a kind of living entity, with evolving memetic beliefs, practices, and artifacts. We propose a class of memetic social entities or systems called *leadership culture*, members of which change, develop, and intertwine in ways we are learning to observe, describe, and influence. Leadership cultures are where we live, and for our collective well-being we need them to be healthy and thriving (Palus, Harrison, & Prasad, 2015).

The way forward, we think, lies in making leadership culture visible, understandable, and intentional. This means making leadership culture itself the object of the kinds of intensive development efforts that in the past have been focused on individual leaders. We know now that leadership cultures can evolve, and can be intentionally shaped, to higher levels of collective awareness, efficacy, and moral action. We live in a time of accelerating cultural dynamics, of remarkable growth as well as damage and decay. The vertical development of leadership cultures amidst this churn is possible, promising, and necessary.

In this article we describe a body of theory and practice for change leadership, with leadership culture as the main arena for intentional, strategic change in organizations and communities. The vertical development of leadership culture, in concert with individual, team, and societal development, enables the execution of complex strategies in increasingly challenging contexts.

Our maxim is:
If you want best practices, you need best beliefs.
Beliefs drive practices.
Beliefs are embedded in cultures.
Culture always wins.

The key question becomes:
How can you evolve and transform your culture around best beliefs?

Our Work

The co-authors of this article are Senior Fellows of the Center for Creative Leadership (CCL) who work with clients in a wide variety of leadership development contexts at the levels of individual leaders, group effectiveness, organizational leadership, and societal advancement.

Our mission at CCL (www.ccl.org), a 50-year old non-profit research-based organization, is to advance the understanding, practice and development of leadership for the benefit of society worldwide. Our vision is to positively transform the way leaders, their organizations, and our societies confront the difficult challenges of the 21st century.

The idea of leadership culture and its vertical transformation has been a key scaffold of research and practice at CCL since the mid-1990s, as CCL began transcending and including the

psychological paradigm of individual leader development within a more encompassing sociological and relational ontology (Drath & Palus, 1994; Palus & Drath, 1995; Drath, 2001; Drath et al., 2008).

The Center for Creative Leadership and Bill Torbert's Global Leadership Associates (www.gla.global) are partner research-practitioners focused on the development of leaders and leadership cultures. Over the years we have theorized and explored leadership action logics at the collective, organizational level, and we have collaborated in change leadership initiatives. Our research methods are modeled on Torbert's rich framework of Collaborative Developmental Action Inquiry as we work with clients and partners in human development – and as we seek to transform ourselves and our own cultures and societies (McGuire, Palus & Torbert, 2007).

Over the long-term, at its best, this shared inquiry has been a dance of possibilities, insights, and mutual transformations among people who are passionate about human development. In this article we synthesize what we and our collaborators have learned about the vertical development of leadership cultures across several decades, around the globe with a practical bent toward more effective organizations and a healthier world.

Part 1: Leadership Culture Theoretical Frameworks

This body of work begins with the application of relational and pragmatic theory and philosophy (Gergen, 1994; Dewey, 1958) to leadership. Leadership is thus understood in terms of participating in, shaping, and constructing shared beliefs, practices, systems, and artifacts in service of certain kinds of shared outcomes. Leadership is meaning-making in service of collective action. We align with those seeking leadership in plural, collective, and complex systemic terms (Denis, Langley & Sergi, 2012; Ospina & Uhl-Bien, 2012; Drath et al., 2008; Uhl-Bien, 2006; Drath, 2001). We describe the relational point of view in terms of the DAC ontology for leadership development at the multiple levels of individuals, groups, organizations, and societies (SOGI) more broadly.

Upon this pragmatic, relational foundation we build our change theory and practice with the findings of individual constructive development (McCauley et al., 2006), learning theory and practice (McCarthy, 1996; Argyris, 1990; Senge, 1990), integral theory and practice (Wilber, 2000; Torbert, 2004); cultural anthropology and ethnography (Bohannon, 1995; Schensual & Lecompte, 2016), and organizational leadership strategy (McGuire & Rhodes, 2009; Denison, 1997).

We draw on all of this to describe and engage leadership cultures. Leadership cultures are the bodies of shared beliefs and practices in a collective that shape what "leadership" means (implicitly and explicitly) and thus determine how leadership is recognized, practiced, and developed. Because:

Culture always wins.
And:
Cultures evolve and transform.

Leadership cultures can evolve vertically, such that later action logics come to *transclude* (transcend and include) earlier ones. The potential rewards are greater maturity, agility, wisdom and collective ownership of the whole enterprise; and efficacy in volatile, complex, and uncertain times (Torbert, 1987). The vertical development of leadership culture is thus crucial to creating and sustaining organizational growth and change in the face of complex challenges.

Let's take a look at what we know and what we are still learning about the vertical transformation of leadership cultures.

The Relational Ontology and Leadership Culture Transformations

What one believes about the underlying nature of leaders and leadership drive one's organizational practices and strategies.

The Center for Creative Leadership has adopted the DAC Framework (Drath et al., 2008) across all our practice areas including Organizational Leadership. The DAC Framework is the basis for the theory and practice described in this article (Figure 1). *Direction* is agreement on shared goals. *Alignment* is the organization of work. *Commitment* is the willingness to subsume individual interests for the good of the collective. Note that the terms "leaders" and "followers" per se do not appear in the primary model, as they are derivatives of relational beliefs and practices for producing DAC.
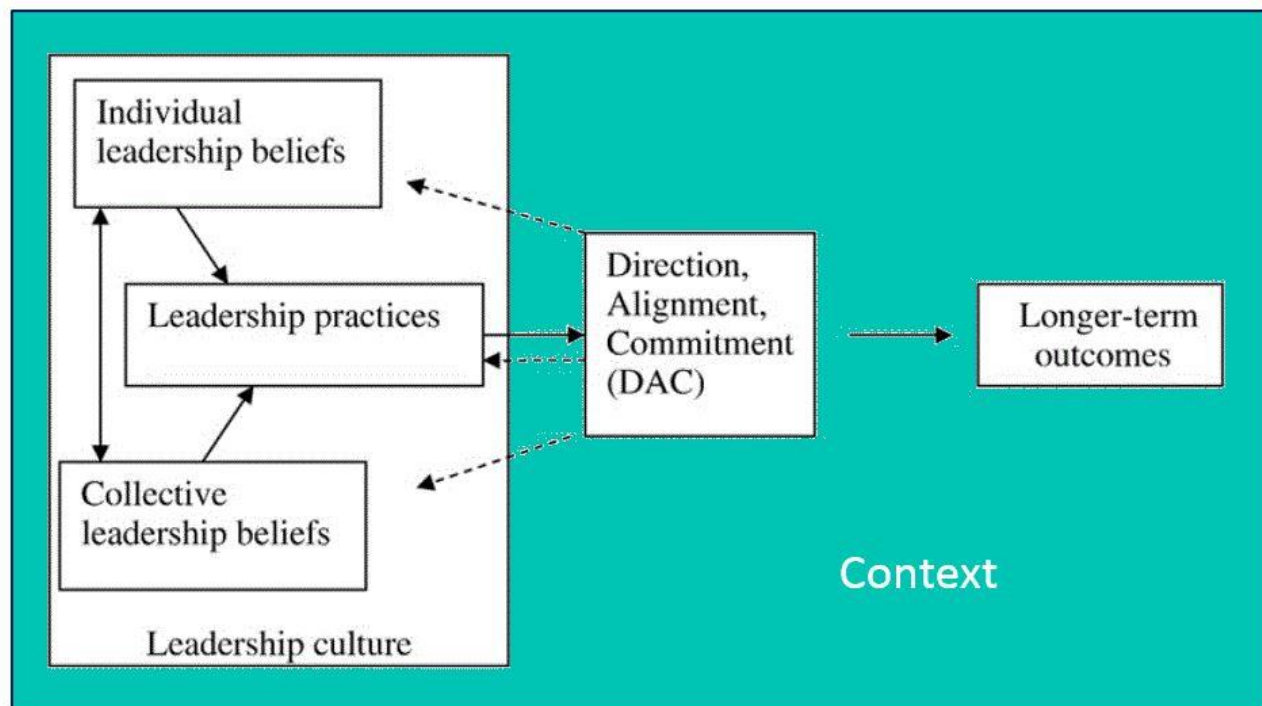
Adapted from Drath et al., 2008

Figure 1: The Direction, Alignment, and Commitment (DAC) Framework

In the relational ontology*: Leadership* is a social process, embedded in cultural beliefs and practices, which shapes and creates the collective outcomes of direction, alignment, and commitment (DAC). Leadership *development* is the growth and transformation of these DAC-shaping capabilities within a collective, at the multiple levels of individuals, groups, organizations, and societies. These multiple levels of leadership development and outcomes and their nested structure (Yammarino & Dansereau, 2008) are represented by the useful acronym SOGI (Palus, McGuire & Ernst, 2011).

Until recently, almost all theories of leadership derived from psychological ontologies in which leadership is situated within the character and personal competencies of individual leaders. Psychological ontologies take individuals as primary with relationships as by-products. A systemic version of this is that individuals reciprocally shape one another, like the Escher of hands drawing one other. Ontologically however, and in the long run, it is relationships all the way down. "Human being" is fundamentally a plural and social verb.

Earlier in our work, we experienced the benefits and then the limits of a primarily psychological approach to leadership development. Often the development of the individual was obvious and measurable, while the impact of this development on organizational or societal outcomes was not as apparent. These limits gradually became a crisis in the 1990s as disruption increased in the forms of re-engineering, downsizing, de-regulation, and globalization. One leader at a time was not enough anymore.

We began experimenting at the edges of our limits, and proposed a new, relational starting point for leadership development: What if we shifted our understanding to imagine "leadership as meaning-making in a community of practice" (Drath & Palus, 1994). It was an invitation to inquiry as much as a definition. This reframing of leadership proved to be controversial—and a useful powerful shift for many in our network of colleagues and clients (Ospina & Uhl-Bien, 2012).

A relational ontology focuses on capabilities shared *between* leaders, including but going beyond the characteristics found *within* individual leaders. This shift from "within" to "between" as the primary focus of leadership development raises important questions: What constitutes a community? And: How is meaning made?

Two lines of response are especially fruitful.

The first response is constructive-developmental (aka vertical or transclusive). In this view, the key defining feature of humans is the construction of meaning (Kegan, 1994). We live our lives in various webs of belief (Weick, 1979; Quine & Ullian, 1978; Kelly, 1955). Practices are beliefs and meanings put into action (McGuire & Palus, 2015).

Constructive-developmental theory posits human development as a succession of increasingly complex and mature stages and states of meaning-making that frame thought and action (McCauley et al., 2006; Piaget, 1954). Leadership development is closely related to this kind of increasing maturity (Palus & Drath, 1995). More mature leadership is capable of attention to timely action, further horizons, and more complex challenges (McGuire & Rhodes, 2009).

This is often referred to as *vertical* development (Cook-Greuter, 2013), such that the metaphorical direction of development is vertical or "up," the proverbial direction of aspiration and achievement. But, the vertical metaphor can also be distracting and limiting, implying a strictly linear, ladder-like, and "better-than" progression. A more nuanced perspective posits a *multarity* or multiple polarity of dynamically interacting stages, states, and relationships (Johnson, 1992). Development in real life is messy and enigmatic (Herdman-Barker & Wallis, 2016).

The useful synonym *transclusive* development highlights the key polarity of each stage as *both* transcending *and* including earlier ones, and anticipating later ones (because we are prepared by culture), producing bigger, more agile, complex, and connected minds—as compared to merely elevated or chronologically-older ones.

We define *transclusion* as a primary pattern of growth, evolution, and development in which a new, more complex perspective or logic emerges in a system which transcends and transforms existing perspectives, while at the same time including, assimilating, and re-integrating established logics and perspectives into a new dynamic structure.[3] Development as transclusion is web-like and nested rather than linear. Such attention to the central role of language in this work reminds us that consciousness itself is social, metaphor-based, memetic, and evolving (Hofstadter & Sander, 2013; Jaynes, 1976).

The second response is cultural. Anthropologists define culture as the tools and meaning (beliefs) that extend learning, expand behavior and channel choice (Bohannon, 1995). All meaning-making is embedded in cultures ranging from societal-scale to the local cultures of groups, teams, and organizations (Cameron & Quinn, 1999). Cultures are holding environments for individual and collective meaning-making (Kegan, 1994; Schein, 2010). The labels we tend to put on individual leaders have cultural roots and relational branches. Yet cultures can seem invisible from the inside. We are like fish in water. We are in it, and we can't see it (Wallace, 2005).

Cultures can evolve and transform vertically, that is, toward greater complexity and interdependence in the dynamics of leadership. The dynamics of power, authority, participation, collaboration, and perspective-taking, and self-development benefit from intentional development (Kegan & Lahey, 2016; McGuire & Palus, 2015). This has been observed in regional cultures (Inglehart, 1997) as well as organizational cultures, and in leadership cultures (McCauley et.al. 2008). Bill Torbert in particular has advanced the idea that team and organizational cultures can develop in predictable stages which parallel and echo the stages of adult development (Torbert, 1987).

Leadership culture is the self-reinforcing, evolving, memetic web of individual and collective beliefs and practices in a collective for producing the outcomes of shared direction, alignment, and commitment. The complexity of an organization's strategic work is linked to the capability of its leadership cultures – typically plural in nature--to handle that complexity. This includes the

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[3] The term *transclusion* is transposed and adapted from the Xanadu hypertext epistemology of Ted Nelson (1993), which also suggests that human meaning-making and its development is *intertwingular* and non-linear. We are grateful to Al Selvin and Simon Buckingham Shum for exploring the use of hypermedia-supported dialogue mapping in the context of leadership development (Selvin & Buckingham Shum, 2014).

collaborative capability to span boundaries among the multiple sub-cultures present in most organizations and communities (Ernst & Chrobot-Mason, 2010).

Strategy requires the right culture, one capable of its execution (Hughes, Beatty, & Dinwoodie, 2013). Culture always wins. Keen strategy, changes in behavior, new competencies, and best practices are necessary but not sufficient for leading in times of turbulence and change. Culture development – evolution and even transformation -- is required for effective leadership in support of bold strategic aims.

Leadership culture is the operating system for producing DAC in a collective. But not every operating system is capable of enacting a complex and agile strategy.

With these insights in mind, we began to explore, model, and test the following idea in collaborative inquiry with our clients and colleagues: [4]

How might leadership cultures develop in ways that support learning, growth, and change in the face of complex challenges?

To do this, we needed a practical framework and tools that would help make leadership culture more visible and provide some shared language and images, allowing members to observe, reflect and converse about their past, present, and desired leadership cultures. Thus we needed a simple, face-valid, and roughly accurate model of leadership culture development. In these practical terms a 3-stage model is more accessible, memorable, and useful than a 5- or 7-stage model.

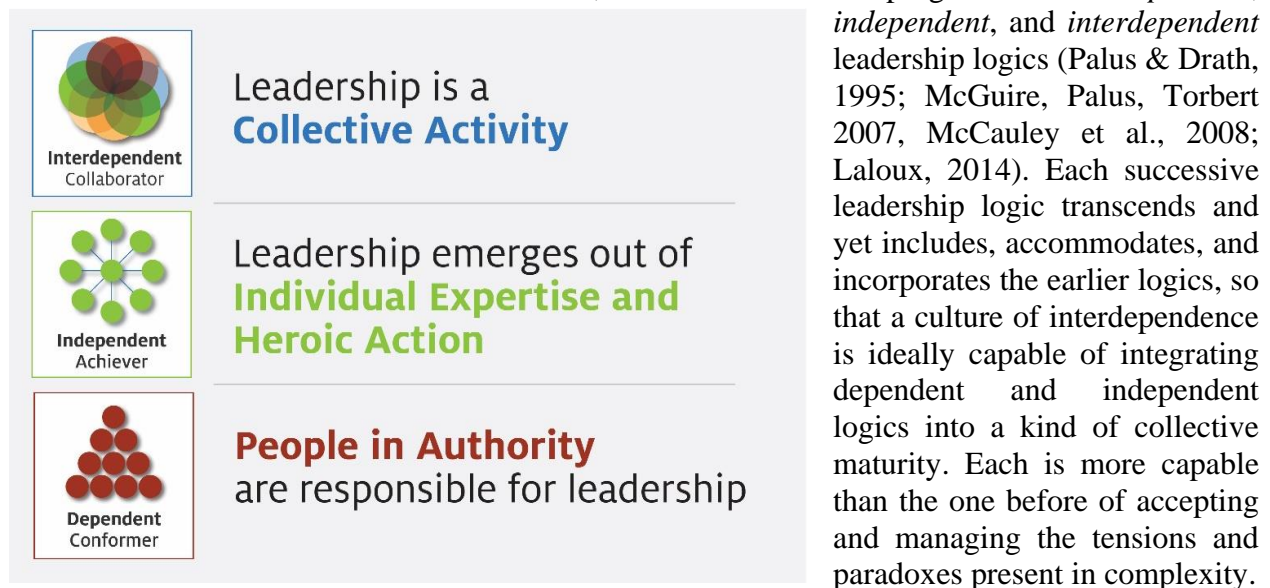We landed on the model shown in Figure 2 (the "Snowman" model) in which organizational cultures can be understood as variations, combinations and progressions of *dependent*, *independent*, and *interdependent* leadership logics (Palus & Drath, 1995; McGuire, Palus, Torbert 2007, McCauley et al., 2008; Laloux, 2014). Each successive leadership logic transcends and yet includes, accommodates, and incorporates the earlier logics, so that a culture of interdependence is ideally capable of integrating dependent and independent logics into a kind of collective maturity. Each is more capable than the one before of accepting and managing the tensions and paradoxes present in complexity.

Figure 2: Three states and stages of leadership culture (The Snowman)

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[4] Details are reported in Palus, McGuire & Ernst, 2012; McCauley et al., 2008; McGuire & Rhodes, 2009; McGuire & Palus, 2015; Hughes et al., 2011; Drath, Palus, & McGuire, 2010; McGuire, Palus, & Torbert, 2007; Palus & Drath, 1995; Palus & Horth, 2002.

These three categories are based in the classic summation of the maturing human mind as a sequence of three phases, variously framed as *traditional, modern & post-modern* orders of consciousness and reasoning (Wilber, 2000; Kegan, 1994; Inglehart, 1997; Kohlberg, 1969; Covey, 1989); phases of values as *survival*, *belonging*, *self-initiation* & *interdependence* (Hall, 1995);); *conformer*, *achiever* & *collaborator* leadership logics (McGuire & Rhodes, 2009); and *dependent, independent & inter-independent* cultural logics (McCauley et al., 2006; Palus & Drath, 1995).

Cultural beliefs and practices determine how DAC outcomes are realized (Figure 3). *Dependent* leadership cultures cultivate DAC by authority and tradition. *Independent* cultures cultivate DAC by a cadre of achievement-driven leaders utilizing technical expertise primarily for their own purposes. *Interdependent* cultures cultivate DAC using intentional sense-making processes across otherwise independent entities and are strategically engaged in external societal networks (Drath, Palus, & McGuire, 2010).

	Direction	Alignment	Commitment
	How do we achieve agreement on direction?	How do we coordinate our work so that all fits together?	How do we maintain commitment to the collective?
Interdependent	Agreement on direction is the result of **shared exploration** and the **emergence** of new perspectives.	Alignment results from **ongoing mutual adjustment** among **system-responsible** people.	Commitment results from **engagement in a developing community**.
Independent	Agreement on direction is the result of **discussion, mutual influence**, and **compromise**.	Alignment results from **negotiation** among **self-responsible** people.	Commitment results from **evaluation of the benefits for self** while benefiting the larger community.
Dependent	Agreement on direction is the result of willing **compliance** with an **authority**.	Alignment results from **fitting into** the expectations of the **larger system**.	Commitment results from **loyalty** to the source of authority or to the community itself.

Figure 3: DAC and leadership culture

To be clear, all these forms of leadership are relationally produced, and all have utility in specific settings. For example, heroic individual leaders are authorized and empowered by cultural norms (Yammarino, et al., 2012). Thus leadership development *always* benefits from a relational understanding even when strong individual leaders are the object of development: Culture always wins.

Recently, interest in vertical leadership development has expanded and our clients are requesting more insight into the underlying constructive-developmental models (Petrie, 2014a, 2014b). Our 3-part Leadership Culture Model is useful for clients gaining awareness, prompting

dialogue and groups learning in action; and is less precise for fine-grained assessment and formal evaluation.
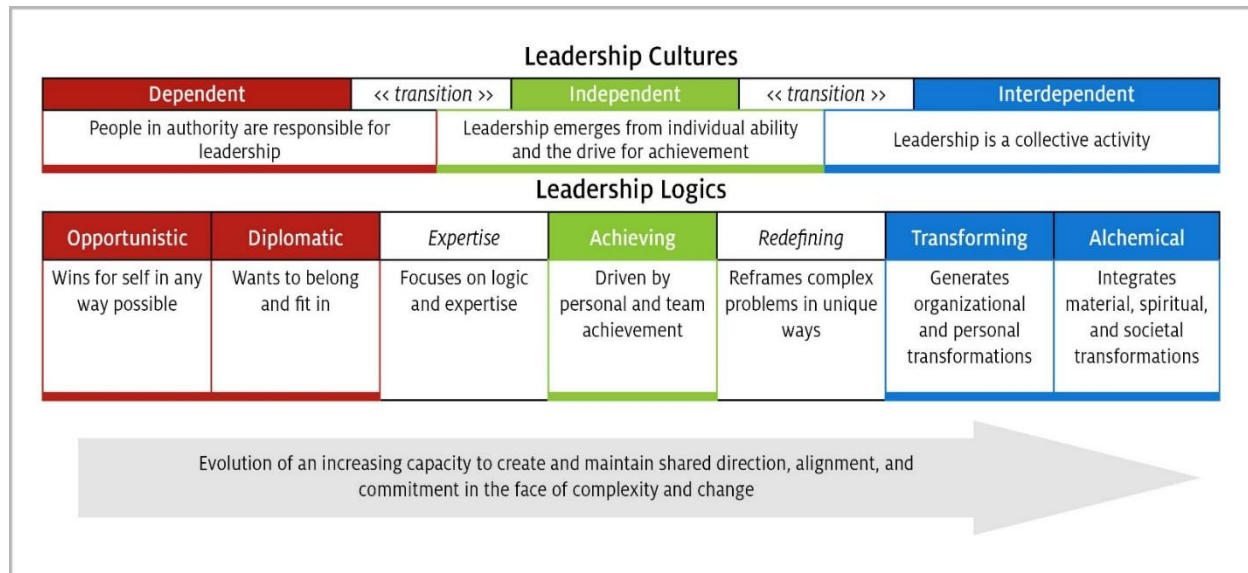

Figure 4: Action logics of leaders and leadership cultures

Inspired by Bill Torbert's adaptation of individual action logics as cultural memes, we correlate the three cultures across the seven action logics (Figure 4) (McGuire, Palus, & Torbert, 2007; Rooke & Torbert, 2005). The names of these seven logics are shifted so that each word-ending better indicates a relational process rather than a personal label: *Opportunistic, Diplomatic, Expertise, Achieving, Redefining, Transforming,* and *Alchemical*. These logics are shared understandings and relational channels for beliefs and actions. The focus shifts and expands from labels of individuals in particular stages to the shared logics active in cultures and societies. *Expertise* and *Redefining* thus represent the key cultural transformations—to independence, then interdependence—within collectives. These seven *leadership logics*, now re-imagined as relational, provide a more refined and precise description of development, with transitional states, across the three broader leadership cultures.

The action logics of *diplomatic*, *expertise*, and *achieving* are by far the most common measured in organizations (Torbert, 2004). Conversely, the relative lack of more mature *redefining*, *transforming*, and *alchemical* action logics limits the prospects for sustainable and effective organizational change. All the while, in many of our contemporary settings, we seem to be increasingly up to our necks in narcissists and *opportunists*.

Challenges in Changing Leadership Cultures toward Interdependence

We share this axiom with client executive teams, in light of the stark realities of the global situation:

There is a hierarchy of cultures, and each successive leadership culture is capable of dealing with more complexity, more ambiguity and more uncertainty.

We live inside the challenges of an interdependent world in the state of churn and evolution often called VUCA: volatility, uncertainty, complexity, and ambiguity (Stiehm, 2002). Our clients and their partnership networks are drawn to the possibilities of interdependent leadership cultures as an antidote to the churn and instability of global change (McGuire, Tang, 2011). Leadership requirements for executing complex strategies are alternately expressed as cultures of collaboration, resilience and agility; organizational learning, creativity and innovation; strategic leadership, and even forms of social responsibility. These qualities are relational, and can be realized most effectively within and among interdependent leadership cultures and their constituent beliefs and practices. The primarily horizontal cross-boundary nature of supply chains and the complexity of the relational networks of organizational partnerships required to operate within them, necessitates effective business strategies that increasingly embrace VUCA (Johansen, 2012).

In our experience, senior leaders have increasingly come to recognize the limits of independent-achiever leadership give way to the need for more interdependent-collaborative forms of leadership, and usually seek more mutual work in strategically critical locations and processes. And, dependent-conformer cultures also often seek change into more independent-achiever forms while often struggling to broaden toward change perspectives sufficient for scaling contexts. Some organizations have redefining aspects to their leadership culture which are adaptive and even generative toward more interdependence (W.L. Gore, Google, US Army) while organizations with strong expert cultures did not adapt (Digital Equipment Corporation, Lehman Brothers; DuPont).

Interdependent leadership beliefs and practices, we propose, can be understood as the *both/and* capabilities of double-loop and triple-loop learning (Argyris 1990; Torbert, 2004), the management of polarities (Johnson 1992), through dialectics and dialogue (Basseches, 1984; Bohm, 1990; Isaacs, 1999), and the capabilities for inter-systemic thinking and acting in the face of complexity (Oshry, 2007). Earlier leadership cultures are restricted by *either/or* mind sets and bridled by the limits inherent to compromise.

Intentional transformation to a leadership culture of interdependence is feasible under the right circumstances. The United States began as a *dependent* culture—a group of colonies under the authoritarian rule of the king. Rebelling against this oppression, colonists developed more *independent* minds. The U.S. Constitution expresses a form of *interdependence* that uses authority and compromise as tools within a broader vision of collaboration, new frontiers, and invites further transformation (Palus, McGuire & Ernst, 2011). But the question remains, does the citizenry have critical mass for a both/and mind-set required by the management of tensions embedded in the constitution (McGuire, 2010)?

PART 2: Change Leadership Core Realities

At the Center for Creative Leadership we practice action science with client partners, experiencing both the failures and successes of transformation in leadership cultures and organizations. This quote represents contemporary client realities.

In a fundamentally interconnected world our leaders face new and greater challenges that require new and greater leadership strategies. … Our future performance will increasingly

require our top leaders to think and act interdependently – and above all to influence the men and women throughout our company to think and act interdependently – to move toward a higher organizational aim.

(Bob McDonald, Chairman and CEO, Proctor & Gamble, 2012) [5]

The world is shifting in such magnitude that it outstrips our experience and traditions. The extreme pace of change and the need to adapt is a daunting reality. We are slow to adapt and we simply react. We need more effective leadership in these times of change (Johansen, 2012).

Linear "eight stages of change management" processes may work within discrete operations projects, and with technical problems that can be solved. Attempting to lead change through conformance to standard operating procedures, or through the independent verve of experts and achievers can succeed through will power, but eventually hits the wall when executing a complex strategy full of real interdependencies (Oshry, 2007; Gryskiewicz, 1999; Beer, 1985).

The real space of change – and thus its challenge – is beyond the boundary of the change plan, the experts and the Gantt charts. That's where the change dilemmas emerge, full of paradox and complexity, in simultaneous and constant layers, waves and assaults.

For three decades the challenges that must be faced have not been being effectively managed or led, and the significant failure rate of change management in large organizations persists (Reeves et al.; Pasmore, 2011; Cameron & Quinn 1999; Kotter, 1996). The nature of organizational change itself is changing from earlier forms of project or initiative driven change and now towards more continuous forms of change that are more difficult to measure (Roth, 2011; Pasmore, 2015).

Senior leaders want – need – to live in a *strategic zone*, a place where mindset, knowledge and action are fused to continuously improve performance. In this zone, leaders are better able to manage risks, find opportunities, and establish and leverage competitive advantages. They create an operational edge and play it to improve the probability of success.

Leaders working interdependently in the strategic zone are connected and agile, informed and open, attuned and aware. They are able to respond deftly to change and guide others to adapt as well.

While change management is the technical, empirical mechanism (*outside-in*) aspect of transformation, change leadership holds the mindset (*inside-out*) of beliefs, imagination, emotions and human spirit. Change management and change leadership are the two sides of a Mobius strip.

The strategic zone is collaborative. Like teams of mountain climbers attuned in interconnecting relationships, leadership itself is increasingly understood as a shared space (Uhl-Bien, 2006. Drath et.al 2008. Denis, Langley, Sergi 2012). Leadership mindsets are shifting toward more interdependent and collective leadership capabilities (Palus, McGuire & Ernst, 2011).

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[5] Hughes, Beatty, Dinwoodie, 2013

Individuals, working in teams, must still develop greater skills and competencies but that is not sufficient. A shift in the leadership culture is typically needed to bring executives, senior teams and key leaders across an organization into the strategic zone (McGuire & Rhodes, 2009). A comprehensive leadership strategy in tandem with a business / organizational / societal strategy is required (Hughes, et al., 2011; Pasmore, 2009).

The big challenges of leading interdependently in the strategic zone require bigger minds. Achieving and growing bigger minds – both individually and collectively – is vertical development territory. Vertical development is categorically different than horizontal development (Petrie, 2014a).

Horizontal development means instilling more skills and competencies into leaders. It is most often about technical knowledge which can be collected, measured and displayed. It is about *what* you think and believe.

Vertical development is the advancement of capacities for awareness and imagination, and becoming able to feel, conceive, believe and think in more complex, curious, systemic, strategic and interdependent ways. It is about *how* you think and believe.

With these basics in mind, let's look at how change leadership in the strategic zone actually works.

The Realities of Change Leadership

It is important to keep in mind that the objectivity of the institutional world, however massive it may appear to the individual, is a humanly produced, constructed objectivity.

(Berger and Luckmann, 1966, p 78)

Reality, in other words, is socially constructed (Berger & Luckmann, 1966). This somewhat obvious statement is controversial when it is taken as an either / or choice. Of course organizational reality is *both* socially constructed *and* physically constructed (Ospina & Sorenson, 2006). Vertical development as a mature adult includes being better able to grasp such apparent contradictions and polarities in their full both/and complexities (Johnson, 1992). This realization allows us all to be "social constructivists" and also embrace nuanced objectivity (Kegan, 1994).

Social construction is what change leaders do together. Change leadership is largely (but not only) a matter of imagination, curiosity, communication, dialogue and meaning-making. Meaning-making is to leaders as brick-laying is to builders.

For mature leadership in terms of vertical development, the preferred path of social construction is variously referred to as collaborative-developmental action inquiry, or CDAI (Torbert, 2004), participatory inquiry (Reason, 1994), collective mindfulness (Weick & Sutcliffe, 2006), and the learning organization (Senge, 1990). We often refer to such intentional, reflective, curious, truth-seeking, imaginative, playful, collaborative, action-oriented forms of social construction simply as *public learning* (McGuire & Rhodes, 2010).

Public learning, in this view, holds, nurtures, and (ideally) synthesizes and advances three perspectives which are fundamental to constructing the human realities of organizations of all kinds (McGuire, Palus, & Torbert, 2007). *First-person perspective* is personal and based in individual experience, reason, feeling, intuition, faith, etc. *Second-person perspective* is mutually constructed in relationships as "our" view. *Third-person perspective* is about objective, verifiable, material facts.

These three perspectives come together in the conversations and dialogue we have with each other. Public learning is the experience of intentional dialogue applied in real-time to strategic organizational or societal work. Public learning is both serious and playful, entertaining both/ands and reconciling multiple truths. Emotional intelligence is requisite.

Reality is worth constructing together. Collective wisdom is worth creating. Truth matters. Truth is worth pursuing. We mean *the pursuit of truth* as the curiosity and intent to be conscious in relationship with each other, advancing our knowledge through a shared process of discovering, understanding, and transforming our reality.

From our own public learning in our journeys among change leaders, we offer *Three Realities of Change Leadership*. We hold these social constructions as open for dialogue in the global community of people who lead, manage and deal with change: All of us.

First Reality

Successful change requires both change leadership and change management.

Leading change requires understanding the differences in leading and managing.

Change management enacts the technical operational systems, structures and processes required to enact the business strategy.

Change leadership develops the capabilities for realizing shared direction, alignment, and commitment required to enact the business strategy.

Change leadership is the process of setting a leadership strategy to identify the leadership and culture dimensions of what it takes to deliver promised results (Beatty & Byington, 2010).

Change leadership is the craft of agile leaders capable of seeing whole systems while operating and integrating them. It is public learning in action.

Change leadership is needed to continuously elicit the direction, alignment and commitment to thrive in a complex and changing world.

Second Reality

Attention to leadership culture is key to strategic success.

Leadership culture will make or break any strategy, change effort or business transformation.

Complex, multifaceted, systems-level shifts in the environment require mindsets big enough to deal with continuous waves of change. Curious, intentional, both/and thinking, creative, interdependent leadership is what's missing.

Most leaders underestimate the risk of getting culture wrong. Instead, they focus habitually on the measurable, controllable, technical expert side – they manage the business. While technical tools, systems and processes are necessary instruments, they are nothing without culture. The evolving, bigger mind is both individual and cultural in nature.

Different types of leadership culture are likely necessary across different parts of any organization, but to succeed in the long run, most organizations need to build toward cultures of greater interdependence. Interdependent leadership cultures of collaborative, connected and shared leadership are needed for systemic perspective-taking required to respond to complex and changing environments.

Third Reality

Public learning is the means to a more interdependent leadership culture.

Sustainable change is a permanent learning process embedded in an organization's work (Quinn & Van Velsor, 2010). It is quite different than technical change. Public learning is required. In most leadership cultures, engaging in open, public, learning conversations is not a natural act. Bigger minds are required to lead public learning.

Many cultures impede public / collective / collaborative learning. Conversations necessary for learning and change are avoided or condemned (Patterson et al., 2002). Social norms prevail over organizational effectiveness. As tragic as organizational change failure is, saving face is often more important than saving the organization.

Culture always wins.

Change leadership requires having open dialogue to reveal beliefs that drive decisions. It is about mining key nuggets of knowledge in action, and hammering them into useable information that can be applied and modified into the actual work of changing systems and processes. Learning is confirmed in the collective conscious process, and happens individually and collectively, simultaneously and through the organization's work.

Collaborative leadership cultures are new on the horizon. They are increasingly capable of engaging in deep dialogue, uncovering hidden assumptions, and generating multiple right answers. It takes both/and thinking, facility with paradox, and interdependent mindsets to master this unfolding arena of complex change.

Senior leaders in the strategic zone understand the nature of interdependence and require increasingly interdependent forms of leadership within key strategic organizational zones in order

to execute increasingly complex strategies. They recognize the need for collaborative networks of leadership throughout the supply chain, linking silos, sharing knowledge and learning strategically together (Palus, Cullen, Chrobot-Mason 2016, Pasmore, 2015). They understand the necessity of shared beliefs and practices for a co-created future.

Part 3: Leadership Culture Change Learning Process & Tools

Change learning is at the heart of change leadership (Argyris & Schön, 1996; Schein, 2010; McGuire & Rhodes 2010). Through both private individual and collective public learning, leaders advance new beliefs, practices and repeated behaviors that create alignment across the organization's systems, structures and processes. They learn how to make different, better decisions. Teams learn how to argue constructively, think systemically, change beliefs, make better decisions, and create new waves of practices.

We've constructed for practical purposes a three-part cycle. This is a change learning process that expresses the basic dynamics of individual and organizational learning in the change and transformation process (Figure 5),
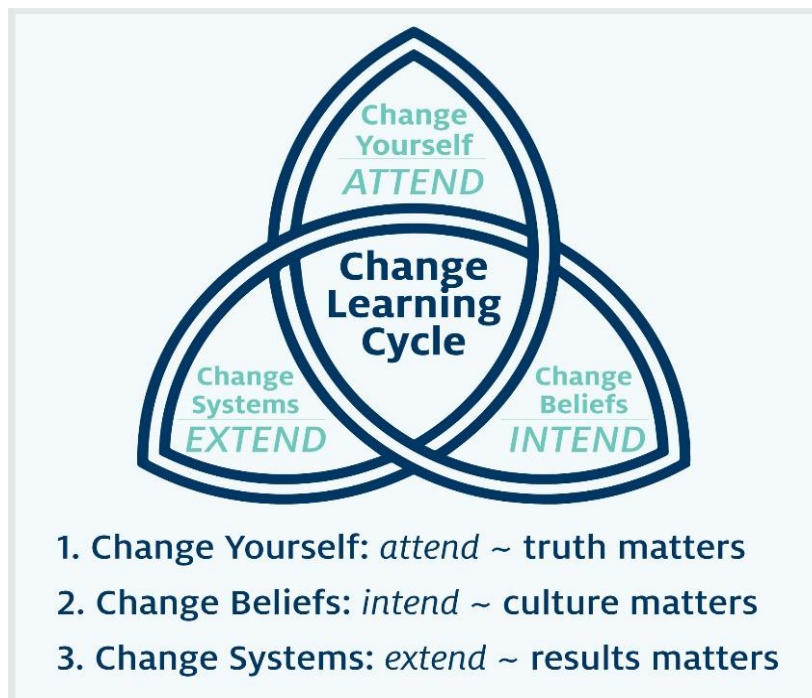

Figure 5: The change learning cycle

ATTEND Change *yourself*. Attend to what's going on inside yourself and others. Pay attention.

Change at an organizational level requires change within individuals. Culture is fostered by leaders attending to change in themselves, as they try out ways of working differently, and different ways of constructing reality with others.

Senior leaders must do the change work first. They serve as role models and guides. They shape the norms of culture, every day, by how they communicate, decide, focus and relate to others. They create environments in which *who we are*, *what we believe* and *how we do things around here* determine how we set and achieve our goals, develop our capabilities and insure our long-term viability.

The idea for many senior managers to change themselves first, rather than delegate change to others, is often quite challenging and counter-intuitive. Further, the notion to dig down and change beliefs as the key lever for changing behavior is often novel for many executives.

Changing one's self requires reflective capability. If you don't have the capability to be self-aware/conscious, to be consciously observant about what's going on around you and what's going on inside you at the same time, then your ability to participate in change may be meager.

Change leadership demands that leaders pay attention. It demands that we discover and construct reality, individually and collectively. It is about being curious about what is really happening, and what is true in a situation so that we can figure out what else could be true.

If you want *change*, *consensus reality matters*. You have to be serious about the *pursuit of truth.*

INTEND Change *beliefs*. Test and revise shared truths. Serve your purpose.

Intention is the linkage between the desired, identified change and how change becomes reality.
The shift to intention takes place one conversation at a time. It is about slowing down to power up, becoming conscious in the moment as work gets done and decisions get made. Through both structured and unstructured conversations and work, senior leaders begin to "test drive" new beliefs. As beliefs shift, decisions and behaviors will also shift, resulting in different actions and new outcomes.

Old assumptions have to shift toward new beliefs for organizations to evolve. This requires leaders to deliberately question assumptions alongside their peers, who are also intending to develop the beliefs and practices needed to achieve the strategy.

Beliefs drive decisions, and repeated decisions are practices. By design and with intention, the leadership culture and the operations change simultaneously. Performance – the motivation for change – begins to change, too.

If you want best practices, you need best beliefs.
If you want best beliefs, then intentionally evolve the leadership culture.

EXTEND Change *systems*. Extend the new beliefs and mental models into revised systems and processes aimed at strategic results.

As senior leaders learn together – through *attention* and *intention* – they *extend* that knowledge into organizational systems and processes, achieving change targets and making the goals.

Culture change is done for an organizational purpose. What is required to implement the strategy? What is needed on the human, social and cultural front – alongside the technical and structural needs – to implement change, respond to complexity and realize the future required?

Increasingly, organizational strategies require interdependent mindsets for execution. But organizational members are not yet operating with the intentions and beliefs required to work collaboratively. The whole proposition shifts when senior leaders extend the attention and intention of public learning into more and more places and with more and more people. It becomes the new way of working.

If you want *reliable results*, you need *sustainable, interdependent human systems*.

Leadership Culture Quick Tools for Action Development

Practical tools are required to make the learning work of change leadership accessible and useful to managers and leaders. The content alone is not enough. Ease of use is essential.

We have reduced the use of "outside-in," quantitative surveys and increased the use of tools and experientials engaging the subjective zone of "inside-out" experience (McCall, Lombardo & Morrison, 1988). This is the subjective, co-constructed territory of personal and shared experiences, identity, story-telling, myth, imagination, curiosity, beliefs, assumptions, visions, and faith – the elusive yet vital channels of the human soul and spirit (Kolb, 2014; Palus & Horth, 2002; Bunker, 1997; McCarthy, 1996; McAdams, 1988; Schön, 1983).

We have selected *Quick Tools* and methods here (Figure 6) that our colleagues and clients have found to be useful in a variety of contexts (Palus, Harrison, & Prasad, 2015; Palus & McGuire, 2015; McGuire, Palus, & Torbert, 2007).

I. Understanding Leadership Culture	Overview, research papers, case studies, Leadership Essentials
II. Discovering Leadership Culture	
a) Quick Tools for Inquiry	- Culture Walkabout tool - Storytelling tool - DAC Assessment tool - Six Box tool
b) Quick tools for Assessment	- Leadership Culture Assessment (individual interaction) - Leadership Culture Indicator (organizational overview) - Leadership Culture GAP (one page snowman) - Strategy Line-Up - Team Workstyle continuum - Transformations (Explorer)
c) Quick Tools for Dialogue	- Dialogue tool - Fishbowl tool - Putting Something in the Middle tool - Explorer tools (Visual, Metaphor, et al.)
III. Developing Leadership Culture	Overview: the arts and principles of development; service connections to CCL; Evaluation Guide: measuring effectiveness

Figure 6: The leadership culture *Quick Tools* box

The *Quick Tools* themselves, with common formats that explain Background, Purpose and How to Use, are simplified, practical, self-paced and user-friendly. These Leadership Culture *Quick Tools* are arranged by utility, and designed for discovery-based inquiry and exploration, strategic assessment for development, and deep dialogue for learning and development. For example, here we describe a few core *Quick Tools* for assessment of teams and organizations.

The vertical model is itself a useful facilitation. For example, a few executives informally (or a group formally) are presented a *Leadership Culture GAP* tool, a one page visual of the Snowman

model, with clusters of descriptive indicators for each of three stages/states. Participants first individually and then together assess where their leadership culture(s) tend to be *embedded*, and where their strategy *requires* them to grow toward to face their challenges and realize their future vision and goals. In this *Quick Tool* They begin to take culture and its potential transformation as an object of attention and intention.

An organizational level version of the Snowman Model is the *Leadership Culture Indicators* tool, and provides fifteen specific indicators (items), arranged across each of the three stages. These items are distributed into three organizational categories of systems, engagement and learning. For example, in the systems (belief/practice) item for information, *need to know* characterizes the dependent-conformer culture whereas *want to know* the independent-achiever, and *shared openly with all* reflects the interdependent-collaborator leadership culture. This is typically used in poster form in the middle of a group where the value is discernment and learning in the team dialogue. This assessment tool is often used during an early phase of discovery in the transformation process. Such tools can also be critical in formal evaluation work used in Time 1 and Time 2 fashion. This kind of mediated dialogue, with issues of culture "in the middle," is a form of sustained, first- and second-person inquiry and thus developmentally potent (Torbert, 2004).

We focus on group-level interpersonal interactions in the *Leadership Culture Assessment* tool. Using the seven leadership logics as indicative of culture when taken in aggregate, we created a second-person assessment and inquiry tool (a rubric) for a more detailed look at leadership culture. We have identified four interpersonal processes that showcase the action logics as "what people do together." Rather than seen as individual competencies, these four processes are a bridge between the individual and the culture, where the logics play out in most common leadership interactions: *feedback*, *conflict*, *decision-making*, and *risk-taking*. Derived from the Benchmarks 360 degree assessment research at the Center for Creative Leadership (Leslie & Fleenor, 1998) and from our case studies of interdependent leadership cultures (McCauley et al., 2008), these four interpersonal processes are a basis for first- and second-person assessment of leadership cultures. The map is used by groups, teams and organizations to self-assess their center of gravity and the range of logics present in their work, across teams, divisions and functions, as well as the leadership logics required as organizational leadership capability for future success.

We also have created a first- and second-person inquiry tool called Transformations™ (www.ccl.org/Transformations), a portable, inviting tool which depicts each action logic as a set of illustrated cards, plus a set of cards showing a variety of catalysts and landmarks of human transformation. Transformations cards are used to portray personal and/or collective life journeys by selecting cards portraying their past, present, and aspired futures for themselves, their colleagues, and their leadership cultures (Torbert, Herdman-Barker, Izard & Palus, 2018).

Conclusion

The world is changing faster than we can imagine. Human consciousness needs to keep pace and yet we are stumbling. It is no longer appropriate to only develop a few leaders who are in charge of things. Individual development must be transcluded by the intentional development of collective consciousness, in which both the autonomy of persons and the shared culture are

honored and advanced. Leadership culture is, we believe, the ripe ground for this advancement. The whole world is hungry for positive change that simultaneously uplifts individuals, groups, organizations, and our communities and societies. Pick up the development tools, play with them, invent new ones, use them, share them, teach them. Everybody everywhere is in this together.

Acknowledgements

References

Argyris, C. (1990) *Overcoming organizational defences: Facilitating organizational learning.* Upper Saddle River, New Jersey: Prentice Hall.

Argyris, C. & Schön, D.A. (1996) *Organizational learning II: Theory, method, and practice.* Reading, MA: Addison-Wesley Publishing Company.

Basseches, M. (1984). *Dialectical thinking and adult development*. Norwood, NJ: Ablex.

Beatty, K.C., & Byington, B. (2010). Developing strategic leadership. In C.D. McCauley, E. Van Velsor, & M.N. Ruderman (Eds.), *The Center for Creative Leadership Handbook of Leadership Development*, (3rd Ed.). San Francisco: Jossey-Bass.

Beer, M. (1985). How to develop an organization capable of sustained high performance: embrace the drive for results-capability development paradox. *Organization Dynamics. 29(4),* 233-247.

Berger, P. L., & Luckmann, T. (1966). *The social construction of reality*. London: Penguin.

Bohannon, P. How Culture works. Free Press: New York, 1995

Bohm, D. (1990). *On dialogue*. Ojai, CA: David Bohm Seminars.

Bunker, K. (1997). The power of vulnerability in contemporary leadership. *Consulting Psychology Journal*, 49(2), 122-136.

Cameron, K. S., & Quinn, R. E. (1999). *Diagnosing and changing organizational culture*. Reading, MA: Addison Wesley Longman.

Cook-Greuter, S. (2013). Nine levels of increasing embrace in ego development: A full-spectrum theory of vertical growth and meaning making. Prepublication version. Adapted and expanded from S. Cook-Greuter (1985).A detailed description of the successive stages of ego-development.

Covey, S. R., (1989). *The seven habits of highly effective people.* NY: Free Press.

Denis, J. L., Langley, A., & Sergi, V. (2012). Leadership in the plural. *Academy of Management Annals*. dx.doi.org/10.1080/19416520.2012.667612

Denison, D. R. (1997). *Corporate culture and organizational effectiveness, 2nd Edition*. Ann Arbor, MI: Denison Consulting.

Dewey, J. (1958). *Experience and nature* (Vol. 1). Courier Corporation.

Drath, W. H. (2001). *The deep blue sea: Rethinking the source of leadership*. San Francisco: Jossey-Bass.

Drath, W. H., & Palus, C. J. (1994). *Making common sense: Leadership as meaning-making in a community of practice*. Greensboro, NC: Center for Creative Leadership.

Drath, W. H., Palus, C. J., & McGuire, J. B. (2010) Developing an interdependent leadership culture. In C. D. McCauley, & E. Van Velsor (Eds), *Center for Creative Leadership Handbook of Leadership Development,* 3rd Ed. San Francisco: Jossey-Bass.

Drath, W. H., McCauley, C. D., Palus, C. J., Van Velsor, E., O'Connor, P. M., & McGuire, J. B. (2008). Direction, alignment, commitment: Toward a more integrative ontology of leadership. *Leadership Quarterly, 19,* 635-653.

Ernst, C. & Chrobot-Mason, D. (2010). *Boundary spanning leadership: Six practices for solving problems, driving innovation, and transforming organizations.* McGraw-Hill Professional.

Gergen, K. J. (1994). *Realities and relationships: Soundings in social construction*. Cambridge: Harvard University Press.

Gryskiewicz, S. S. (1999). *Positive turbulence: Developing climates for creativity, innovation, and renewal.* San Francisco: Jossey-Bass.

Hall, B. P. (1995). *Values shift: Understanding personal and organizational transformation*. Rockport, MA: Twin Lights Publications.

Herdman-Barker, E., & Wallis, N.C. (2016). Imperfect beauty: Hierarchy and fluidity in leadership development. *Challenging Organisations and Society: Reflective Hybrids*, 5(1). 1-17.

Hofstadter, D., & Sander, E. (2013). *Surfaces and essences: Analogy as the fuel and fire of thinking*. Basic Books.

Hughes, R. L., Beatty, K. C., Dinwoodie, D. (2013). *Becoming a strategic leader (2ⁿᵈ Edition)*. San Francisco, CA: Jossey-Bass.

Hughes, R. L., Palus, C. J., Ernst, C., Houston, G. G., & McGuire, J. B. (2011). Boundary spanning across leadership cultures: A leadership strategy for the comprehensive approach (Chapter 8). In Neal., D.J. & Wells II, L. (Eds.), *Capability development in support of comprehensive approaches: Transforming international civil-military interactions*. Washington DC: Center for Technology and National Security Policy.

Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. Princeton University Press.

Jaynes, J. (1976). *The origin of consciousness in the breakdown of the bicameral mind*. Houghton Mifflin Harcourt.

Isaacs, W. (1999). *Dialogue and the art of thinking together.* New York: Random House.

Johansen, R. (2012). *Leaders make the future: Ten new leadership skills for an uncertain world*. Berrett-Koehler Publishers.

Johnson, B. (1992) *Polarity management: Identifying and managing unsolvable problems*. Amherst MA. HRD Press.

Kegan, R. (1994). *In over our heads: The demands of modern life*. Cambridge, MA: Harvard University Press.

Kegan, R., & Lahey, L. L. (2016). *An everyone culture: Becoming a deliberately developmental organization*. Cambridge, MA: Harvard Business School Publishing.

Kelly, G. A. (1955). *The psychology of personal constructs*. New York: Norton.

Kohlberg, L. (1969). *Stage and sequence: The cognitive-developmental approach to socialization*. Rand McNally.

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. FT press.

Kotter, J. P., (1996) *Leading change*. Boston: HBS Press.

Laloux, F. (2014). *Reinventing organizations*. Brussels: Nelson Parker.

Leslie, J. B., & Fleenor, J. W. (1998). Benchmarks. In *Feedback to managers: A review and comparison of multi-rater instruments for management development (3rd Edition)*. Greensboro, NC: Center for Creative Leadership.

McAdams, D. P. (1988). *Power, intimacy, and the life story*. New York: The Guilford Press.

McCall, M. W., Lombardo, M. M., & Morrison, A. M. (1988). *The lessons of experience: How successful executives develop on the job*.

McCauley, C. D., Drath, W. H., Palus, C. J., O'Connor, P., & Baker, B. A. (2006). The use of constructive-developmental theory to advance the understanding of leadership. *Leadership Quarterly*, *17*, 634–653.

McCauley, C. D., Palus, C. J., Drath W. H., Hughes, R. L., McGuire, J. B, O'Connor, P., & Van Velsor, E. (2008). *Interdependent leadership in organizations: Evidence from six case studies*. CCL Research report no. 190. Greensboro, NC: Center for Creative Leadership.

McCarthy, B. (1996). *About learning*. About Learning Inc.

McGuire, J. B. (January 28, 2010). *Leaders we need with mind's afire*. Editorial, The Washington Post.

McGuire, J. B., & Rhodes, G. B. (2009). *Transforming your leadership culture*. San Francisco, CA: Jossey-Bass.

McGuire, J. B., Rhodes, G. B., (2010). *Currents: Book Highlight – The Cycle of Corporate Culture Development.* Wiley Periodical, InterScience.

McGuire, J. B., & Palus, C. J. (2015). Toward interdependent leadership culture: Transformation in KONE Americas. In D. Warrick & J. Mueller (Eds.). *Lessons in changing culture*. Oxford, UK: Rossi Smith Academic Publishing. 45-63.

McGuire, J. B., Palus, C. J., & Torbert, W. R., (2007). Toward interdependent organizing and researching. In Shani, A.B., et al (Eds.). *Handbook of Collaborative Management Research*. Sage Publications. 123-142.

McGuire, J.B., & Tang, V. (February, 2011). *Fighting the complexity conspiracy.* Forbes.com.

Nelson, T. H. (1993). *Literary machines 93.1*. http://hyperland.com/TNvita

Oshry, B. (2007). *Seeing systems: Unlocking the mysteries of organizational life*. Berrett-Koehler Publishers.

Ospina, S., & Sorenson, G. L. J. (2006). A constructionist lens on leadership: Charting new territory. In G. R. Goethals E. C. Robins & G. L. J. Sorenson (Eds.). *The quest for a general theory of leadership*. 188−204. Cheltenham, UK: Edward Elgar.

Ospina, S., & Uhl-Bien, M. (2012). Mapping the terrain: Convergence and divergence around relational leadership. *Advancing relational leadership research. A dialogue among perspectives.* Charlotte, NC: Information Age Publishing.

Palus, C. J., Cullen, K. L., & Chrobot-Mason, D. (2014). Boundary spanning leadership in an interdependent world. In C. Cooper & L. Fox (Eds.), *Boundary-spanning in organizations: Network, influence and conflict*. London: Routledge. 206–229.

Palus, C. J. & Drath, W. H. (2001). Putting something in the middle: An approach to dialogue, *Reflections* 3(2): 28-39.

Palus, C. J., & Drath, W. H. (1995). *Evolving leaders: A model for promoting leadership development in programs*. Greensboro, NC, USA: Center for Creative Leadership.

Palus, C. J., Harrison, S., & Prasad, J. (2015). Developing relational leadership in Africa. In K. G. Schuyler (Ed.), *Leadership for a Healthy World: Creative Social Change*. International Leadership Association.

Palus, C. J., & Horth, D. M. (2002). *The leader's edge: Six creative competencies for navigating complex challenges.* San Francisco, CA: Jossey-Bass.

Palus, C. J. & McGuire, J. B. (2015). Mediated dialogue in action research. In Bradbury H. *The SAGE handbook of action research*. Los Angeles: Sage Publications.

Palus, C. J., McGuire, J. B., and Ernst, C. (2011) Developing interdependent leadership. In S. Snook, N. Nohria, and R. Khurana (Eds). *The Handbook for Teaching Leadership*. Thousand Oaks: Sage Publications with the Harvard Business School.

Pasmore, B. (2011). Tipping the balance: Overcoming persistent problems in organizational change. *Research in organizational change and development*, Volume 19, 259-292,   Emerald Group Publishing.

Pasmore, B. (2015). *Leading continuous change: Navigating churn in the real world*. Berrett-Koehler Publishers.

Patterson, K., Grenny, R., McMillan, R., Switzler, A. (2002). *Crucial Conversations: Tools for Talking When Stakes Are High*. New York, N.Y. McGraw Hill.

Petrie, Nick. (2014a). Future trends in leadership development. *CCL White Paper Series*. Greensboro, NC: Center for Creative Leadership.

Petrie, Nick. (2014b). Vertical leadership development: Developing leaders for a complex world. *CCL White Paper Series*. Greensboro, NC: Center for Creative Leadership.

Piaget, J. (1954). *The construction of reality in a child*. New York, NY: Basic Books.

Quine, W. V., & Ullian, J. S. (1978). *The web of belief*. New York: McGraw–Hill.

Quinn, L. & Van Velsor, E. (2010) Developing globally responsible leadership. In C.D. McCauley, & E. Van Velsor (Eds.), *Center for Creative Leadership Handbook of Leadership Development,* 3rd Ed. San Francisco: Jossey-Bass.

Reeves, W., Faste, L., Whitaker, K., & Hassan, F. (2018) The truth about corporate transformations. *Sloan Management Review.* January 31, 2018.

Rooke, D. & Torbert, W. (2005). Seven transformations of leadership. *Harvard Business Review*. April, 66-77.

Roth, G. (July 25, 2011*)* Five capabilities for enterprise change. *sdm.mit.edu/webinar*.

Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). John Wiley & Sons.

Schensual, J. J., Lecompte, M. D. (2016) M. D. Ethnographer's Tool Kit – 7 volume set (Vol. 2) AltaMira press.

Schön, D. A. (1983). *The reflective practitioner*. New York: Basic Books.

Selvin, A., & Buckingham Shum, S. (2014). *Constructing knowledge art: An experiential perspective on crafting participatory representations*. Morgan & Claypool Publishers.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday/Currency.

Stiehm, J. H. (June 2002). *The U.S. Army War College: Military education in a democracy*. Temple University Press.

Torbert, W. R. & Associates (2004). *Action inquiry: The secret of timely and transforming leadership*. San Francisco, CA: Berrett-Koehler.

Torbert, W. R. (1987). *Managing the corporate dream.* Homewood, Illinois. Do-Jones-Irwin.

Torbert, W. R., Herdman-Barker, E. Izard, R., & Palus, C. J. (2018). *Transformations™ Field Guide*. Center for Creative Leadership.

Uhl-Bien, M. (2006). Relational leadership theory: Exploring the social processes of leadership and organizing. *Leadership Quarterly*, 17, 654−676.

Wallace, D. F. (2005). *This is water: Some thoughts, delivered on a significant occasion, about living a compassionate life*. Commencement Address, May 21, 2005, Kenyon College.

Weick, K. E. (1979). *The social psychology of organizing* (2nd Edition). Reading, MA: Addison–Wesley.

Weick, K. E., & Sutcliffe, K. M. (2006). Mindfulness and the quality of organizational attention. *Organization Science*, *17*(4), 514-524.

Wilber, K. (2000). *Integral psychology*. Boston MA: Shambala.

Yammarino, F. J., & Dansereau, F. (2008). Multilevel approaches to leadership. *The Leadership Quarterly*, *19*(2), 135–141.

Yammarino, F. J., Salas, E., Serban, A., Shirreffs, K., & Shuffler, M. L. (2012). Collectivistic leadership approaches: Putting the ''we'' in leadership science and practice. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 5, 382–402.