Maturing Leadership

How Adult Development Impacts Leadership

Edited by
Jonathan Reams

We've known for years now that demands on leaders are only increasing. Yet we have lacked widely understood, empirically grounded and rigorous ways to support the development of adequate maturity of heart, complexity of mind and skilful practice for leaders to meet these demands.

Over the past three decades, a growing number of scholars and practitioners have explored the value of a developmental approach to these issues. In Maturing Leadership, Jonathan Reams brings together a cast of expert contributors to introduce this work to a wider audience. While this approach has previously been on the margins of mainstream leadership development research, Reams brings it to the centre, moving beyond the clichéd characterizations of 'inner work' to bring a finer granularity, precision and rigor to the subjective workings of leaders. The chapters explore how applying insights from the field of constructivist cognitive development can be a key driver for supporting improvements in how we approach leadership development.

For researchers and students of leadership, this is an essential addition to the leading theories of developmental approaches to leadership. Increasing complexity in the world is not a passing fad, and the need for leaders to grow in the maturity and sophistication of their responses is a long-term need.

JONATHAN REAMS practices the cultivation of leadership through awareness-based consulting, coaching and action research on leadership development program design and delivery in a variety of settings. He has a position at the Norwegian University of Science and Technology (NTNU), serves as Editor-in Chief of Integral Review, and is a co-founder of the Center for Transformative Leadership and of the European Center for Leadership Practice.

Contents

Chapter 3

The Art and Science of Vertical Development

Charles J. Palus, John B. McGuire, Sarah Stawiski
and William R. Torbert

Introduction

The *transformation* of individuals and organizations is increasingly expressed as a strategic reality and intent by users of leadership development services (Harvard Business Publishing, 2018).

The field of *vertical leadership development* (VLD) focuses on the semi-predictable patterns of transformations in the ways people think and act in increasingly more complex and integrated ways (*action logics*) and is well-suited to interpreting, encouraging and measuring this new reality of strategic transformation. The field of VLD has enjoyed recent success and is gaining momentum around the globe in helping people address complex challenges.

However, the growth of the field of VLD is potentially limited by biases in how the work is theorized and practiced, as well as how it is perceived and engaged by practitioners, clients, coaches, students, teachers and other end-users across the vast array of human contexts and cultures. In particular, we observe that both practitioners and clients, as well as the embedding contexts, are often based in conventional action logics. The result can be a lot of transformation talk but little transformation walk. Intentional, sustained organizational transformation "walk" requires a footing in post-conventional logics.

In this chapter, we analyze these limitations and propose solutions tested in our research and practice. Our aim is increased inclusion, engagement and utility for vertical theory and practice, in support of the positive development of people and societies worldwide.

We have been creating and applying vertical theory for leadership development with a diverse variety of global audiences since the early 1990s (Drath & Palus, 1994). Our work takes a *constructive-developmental* perspective (McCauley, Drath, Palus, O'Connor, & Baker, 2006) enacted within the methodology of

Collaborative Developmental Action Inquiry (McGuire, Palus, & Torbert, 2007; Torbert & Associates, 2004). We apply a relational ontology using the Direction, Alignment, and Commitment (DAC) Framework (McCauley et al., 2008) to guide and develop change leadership within a vertical model of leadership culture (McGuire & Palus, 2018; McGuire & Rhodes, 2009). We share a vision of *democratizing* VLD, making it more accessible, affordable, practical and scalable in all kinds of contexts (Altman, Rego, & Harrison, 2010).

Our success in this work as leadership development professionals is tied to our clients and colleagues finding it engaging, accessible and useful. However sometimes people experience aspects of vertical theory and practice as uninviting and confusing. This can be true for beginners as well as people trying to deepen their mastery.

We propose that the work of VLD is sometimes off-balance in certain ways. This shows up as confusion, complaints, critiques, resistance or outright failure. Our colleagues may point out, for example, that VLD is "too complex," "hierarchical and judgmental," "too Western," or that "stage change takes too long." The list goes on. The points have merit. At times our own response is reactive and we attempt to correct, finesse, amend and further explain (more loudly!) the nuances of theory and practice. Of course by our own theory such feedback is an opportunity for reflection, for becoming more mature and complex in our own action logics and empathy, and for building more robust knowledge and practices.

We contend in this chapter that the various "it's too this or that" reactions to VLD reveal a pattern of imbalance in the way the work of VLD is expressed and experienced. We frame this as an *imbalanced dualities hypothesis*. *Dualities* are seemingly opposing ideas that can be experienced at earlier action logics as conflicting, polar opposites, *and* at later action logics as creative, yin–yang complementarities.

We propose that there are a number of often hidden or undiscussed dualities within the theory and practice of the field of VLD itself. Furthermore, these dualities tend to be correlated, such that the whole set tends to be off balance in the same direction. Addressing this pattern of imbalance can create more mature theory and practice, more effective action inquiry and more advanced leadership cultures, for more people, in a greater variety of social contexts (Fig. 1).

We focus on four of these dualities as our primary examples and point out a number of others following the same general pattern:

- individual and/or? collective beliefs and practices;
- stages and/or? states of development;
- left-mode and/or? right-mode cognition; and
- spotlight and/or? scaffold application.

For example, vertical development is *both* individual *and* collective yet the collective aspect is often hidden or submerged in both research and practice. When leaders develop *individually* they become capable of seeing and enacting transformational processes for their team and the organization. On the other hand, only when the organization as a whole is able to express the later action

Leadership Cultures

Dependent	<< transition >>	Independent	<< transition >>	Interdependent
People in authority are responsible for leadership		Leadership emerges from individual ability and the drive for achievement		Leadership is a collective activity

Leadership Logics

Opportunistic	Diplomatic	Expertise	Achieving	Redefining	Transforming	Alchemical
Wins for self in any way possible	Wants to belong and fit in	Focuses on logic and expertise	Driven by personal and team achievement	Reframes complex problems in unique ways	Generates organizational and personal transformations	Integrates material, spiritual, and societal transformations

Evolution of an increasing capacity to create and maintain shared direction, alignment, and commitment in the face of complexity and change
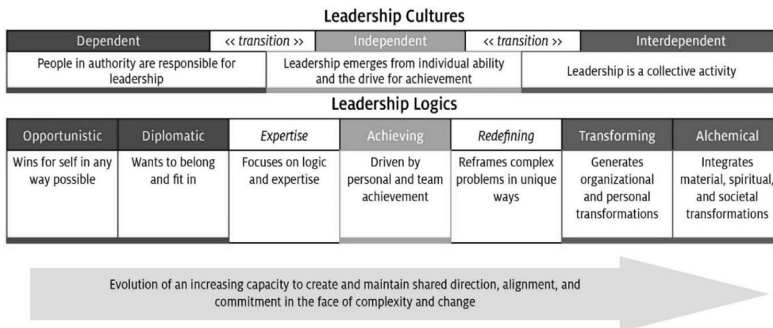
Fig. 1. Correlating Individual and Collective Levels of Leadership Development.

logics does it become a system that supports members' vertical development. Cultural change *and* individual change are deeply inter-related and must be addressed together.

We offer several research-based and field-tested tools, methods and ideas for rebalancing these *polar conflicts* toward *creative yin–yang complementarities*. These are organized within our approach to *change leadership* in large organizational systems, based in the vertical development of individual leaders as well as leadership cultures (McGuire & Palus, 2018).

Much of what we describe here can be understood as a developmental journey of how people in the field of VLD can grow in their own beliefs and practices. It goes something like this: The Opportunist is looking for an edge. The Diplomat wants instructions. The Expert is about correct information. The Achiever is looking for an organizing system. Redefining is about establishing one's own distinctive values and recognizing the distinctiveness of others. Transforming is about discovering when and how one's practices support transformational change. Alchemy is the art of weaving and wielding all these logics in timely ways with love and compassion.

From Polar Conflicts to Creative Yin–Yang Complementarities

The practice of human development calls upon us to be post-conventional and transformational in how we approach our work.

Yet despite these Transforming aspirations, the field of VLD is constantly sifted and interpreted, especially when people first come into contact with it, through Expert and Achiever (i.e., conventional) action logics. This is an inevitable fact of human discourse in modern technical economies. All fields of science and scholarship, whatever their higher reach, have strong cultural centers of gravity in the Expert action logic. This becomes especially apparent when the work of the field is applied or taught. Experts and Achievers make the trains run on time and we are grateful. But conventional action logics can be limiting in contexts of strategic change.

A key aspect of the Expert action logic is polarized thinking in which *either/or* dominates at the expense of more complex *both/and* thinking. In this perspective, any "good" characteristic inevitably becomes compared and even opposed to its polar pair. *Polarities* (Johnson, 1992) are interdependent pairs of seemingly opposing ideas of which both are required over time. Negative consequences result when one side of a duality pair is continually suppressed or limited. The metaphor of breathing *both* in *and* out is apt.

For example "predictable and orderly" is good in science and technology, while "disorderly and chaotic" can be something of a shameful condition and is often suppressed (such as in journal articles). Such biases are typically not conscious and are built into the meaning making of the profession as applied and taught. The seemingly negative pole becomes submerged or suppressed.

The field of VLD is not different in this regard. Elaine Herdman-Barker and Nancy Wallis explore the complexities of development, in which the predictability and order we crave as practitioners is embedded in "an imperfect and fluid process, in which change is contextualized, dissonant and enigmatic" (Herdman-Barker & Wallis, 2016, p. 2). They describe a duality in which "the two parts of: (a) static, ordered hierarchy, and (b) dynamic, chaotic fluidity which, when united, represent movement in human development" (p. 3).

In spite of their deep yin–yang complementarity, the field tends to glorify the formal hierarchical order of stages, and to avoid the chaotic, fluid messiness of how and why people develop.

With respect to the four dualities we named earlier, the field of VLD tends to *emphasize* the yang poles of individual beliefs and practices, linear stages of development, left-mode cognition and spotlight applications. It tends to *submerge* the yin poles of collective beliefs and practices, disorderly states of development, right-mode cognition and scaffold application.

Submersion or suppression of one pole leads to active resistance of the other and confirmation bias extends the unhealthy disparity.

How can we develop beliefs and practices that address such distortions and imbalances? How can we enhance our post-conventional both/and capabilities?

As we researched case studies of organizations with more vertically developed, interdependent leadership cultures (McCauley et al., 2006) we identified *dialectical framing* as potential evidence of such development.

> *Dialectical framing* means seeing how beliefs and values are always entangled with their opposites. Thus, in general, organizations using this frame value learning from differences and engaging with paradoxes. (McCauley et al., 2006)

In dialectical opposition, a new element can emerge from the relationship of the two poles.

Dialectical framing is a hallmark of higher-order consciousness (Basseches, 2005), and potentially a way to make VLD more accessible, useful and transformative in the face of complex challenges.

Beena Sharma and Susanne Cook-Greuter similarly identify the engagement of polarities as a hallmark of post-conventional, transformative thought:

> What sets apart the conventional from post-conventional meaning making is the move from a mostly either-or to an either-or & both-and mindset. Indeed, increasing capacity to integrate polarities is an aspect of post-conventional meaning making. … Integrating many polarities is part of the capacity of the Autonomous[1] level. (Sharma & Cook-Greuter, 2010, p. 15, 20)

We operationalize this as *yin–yang thinking* for the purposes of this chapter (Fang, 2012). It serves as an attractive and useful bridge to later action logics for both individual and groups. We believe it is similarly useful to our current discussion of rebalancing the way we regard our beliefs and practices around VLD itself (Conte, 2014).

Yin–yang thinking is helpful in pointing out that either/or distinctions can be interdependent pairs in which each pole is valid and necessary for long-term success (Gao, Ren, & Miao, 2015; Leslie, Li, & Zhao, 2015; Li, 2014). Yin–yang thinking itself represents a post-conventional stage or state in which *either/or* thinking is transcended and included by *both/and* thinking. Within short time horizons and limited resources, *either/or* thinking may be necessary, but *both/and* thinking is necessary to accurately identify when those conditions truly exist.

In VLD theory, the conscious owning and integration of such interdependent dualities is an indicator of *Transforming* and *Alchemical* action logics, and practically defines the notion of *integral* consciousness (Gebser, 1974; Wilber, 2000). It follows that if our goal is actual long-term transformation of social systems, then we will do well by identifying and rebalancing such opposites that are built into our approaches when consulting and teaching.

Table 1 lists complementary pairs that can become polarized in VLD theory and practice. We observe one pole of each as typically dominant and the other typically submerged. And, what is "typical" varies greatly, of course. The poles are dynamic and can even reverse in dominance. The entire set of dominant poles is (Taoistically speaking) *yang* and the set of submerged poles *yin*. Ideally speaking, nothing is submerged, all is in play, and the dialectic is resolved and expressed as an emergent idea or alchemical power.

Rebalancing is a matter of identifying, accepting, analyzing and integrating these pairs. Begin by acknowledging and naming these dualities. Next, discern the nature of each pole and its status as dominant or submerged. Finally, test solutions through action inquiry, and by uplifting and integrating the submerged pole in ongoing, creative yin–yang interplay.

---

[1]*Autonomous* equates to *Transforming* in Torbert's current framework.

Exploring Key Polarities in the Theory and Practice of VLD

Table 1 presents a list of conflicting polarities that have become increasingly visible to us in our practice and which beg to be treated as creative, yin/yang complementarities. These complementary pairs are our social-psychological-spiritual inheritance through culture and nature, and at the same time they are recreated and evolved in every moment. In their broad outlines they follow the classic yin/yang interplay as represented by the dualities of *agency* and *communion* (Bakan, 1966), the archetypes of *feminine* and *masculine* (Shlain, 1999), and the two cultures of *art* and *science* (Snow, 1956). Yin/yang pairs are interdependent, dynamic and generative.

Table 1.   Complementarities in VLD Theory and Practice.

Both/And	Dominant Pole (Yang)	Submerged Pole (Yin)
Individual *and* collective	Individual/personal	Cultural/relational
Stages *and* states	Stages/unified	States/multiplicity
Left-mode *and* right-mode cognition	Left-mode/logical/verbal	Right-mode/intuitive/art/visual
Spotlight *and* scaffold	Spotlight/theory is explicit	Scaffold/theory is implicit
Orderly *and* messy	Orderly/linear/predictable/certainty	Messy/multiple/chaotic/doubt
Elite *and* universal	Elite/few/expensive	Universal/many/all/affordable
Cognitive *and* emotional	Cognitive	Emotional/somatic
Serious *and* playful	Serious	Playful
Western *and* global	Western/universal	Global/particular
Abstraction *and* practical inquiry	Scholarly abstraction/3rd person/ahistorical	Action inquiry/first and second person/contextual
Objective *and* subjective	Objective quantitative measures	Subjective qualitative measures
Complex *and* essential	Complex/esoteric theory	Essential/simple ideas
Outside-in *and* inside-out	Outside-in/outer world	Inside-out/inner world
Intervention *and* whole-life context	Interventionist/programs	Whole life/human potential
Secular *and* spiritual	Secular/ordinary/known	Spiritual/sacred/mystery
Leaders *and* human beings	Leader/boss/role	Human being/citizens/collaborators
Yang *and* yin	Yang/masculine archetype/achieving/agency	Yin/feminine archetype/connecting/communion

VLD theory and practice varies widely of course, and the nature and shape of each complementarity depends on context. In many cultures, a more collective view of development is dominant and the archetypal feminine aspects are more ascendant. Our own experience tends to be Western and corporate, and yet also with partners and engagements in all parts of the globe including Asia and Africa (Palus, Harrison, & Prasad, 2016). The challenges and rewards of engaging and balancing complementarities in service of human development seem universal.

In each case we suggest that there tends to be a dominant pole and a submerged or neglected pole. There is conceptual overlap and correlation among the dominant poles. The field of VLD has an overall tilt: Western, individual, rational, verbal, academic, serious, orderly and expert-achiever. One can see this as both comic and tragic, since a frequent aim of VLD is to support leaders' transformation beyond the Expert and Achiever action logics.

The complementary relations are interdependent and always dynamic and changing in a dialectic process. Nature, culture, creativity and chance each play a role. Strategic intent and design are critical. Alchemy is enjoined.

The goal is not equivalence or simple balance. Asymmetry is not wrong in itself. The goal – or rather the path – is that the poles express interdependence and mutually transform each other. A dialectical approach promises better integration in these dualities and dilemmas through the acknowledgement of tensions combined with the practice of dialogue. Seemingly conflicting dualities can evolve from rigid perceptions of polar opposites toward organic perceptions of the complimentary yin–yang nature.

We offer these as a diagnostic tool for reflective practitioners everywhere.

Now we will look at three of these complementary pairs in more detail. Other pairs in Table 1 will be described as we move into field applications.

Individual and Collective Social Levels

Human development is both individualistic and collective. The history of vertical theory and practice tends to be individualistic in orientation: ego-psychological more so than socio-cultural (McCauley et al., 2006). In part this has been due to the relative ease of measuring individual transformation as compared to collective transformation.

Individual assessment and coaching is a strong focus in most corporate leadership development and the same is true when vertical development is introduced. "Vertical" becomes one more dimension on which to measure each leader and track their improvement. This puts the spotlight on the individual and lends itself to Expert and Achieving action logics. One's stage assessment can be taken personally as a score, a label, a level of achievement and even as a lasting identity.

The engagement and transformation of individual leaders is profoundly important. At the same time, human development is a collective matter rooted in culture and society. Action logics are held and shared collectively as well as individually (Kegan & Lahey, 2016; Torbert & Associates, 2004).

The collective capability of leadership must be sufficient for the task of successful implementation of complex organizational strategies. Leadership culture and strategy are the drivers of transformation.

We try to take a more balanced and integrated approach by operating at both the individual and the collective levels in leadership development. Thus we avoid some of the downsides of each pole at the extremes. The spotlight of transformation is shared and shines less severely on each individual, while the abstract collective beliefs and practices take on intensely personal meanings.

The collective aspect is complex. The acronym SOGI (SO'-jee) stands for four levels of human development necessary for comprehensive transformation: Society, Organization, Group/Team, Individual. SOGI has been useful for us as a rubric to shape design and strategy across the range of the individual/collective polarity. We often begin client discovery work at the collective pole because it allows individuals to more easily share the burden of a developmental gap before entering into a more personal journey. *I am not alone* precedes *I have personal challenges ahead*.

The idea of *leadership culture* is useful in rebalancing this polarity as it theorizes both individual leaders and relational leadership as an integrated whole. Leadership culture is the set of individual and shared beliefs and practices for creating and maintaining DAC in a collective (McGuire & Palus, 2018). Leadership culture tends to develop in a vertical fashion, from *dependent*, to *independent*, to *interdependent* (McCauley et al., 2008) (see Fig. 1).

For example, Penske is a transportation services company faced with a disruptive environment including the new reality of autonomous vehicles. Their vertical initiatives begin with the assessment and engagement of their leadership culture as key to their business strategy. Historically their heroic leaders have been Experts. Now they need more of a Redefining and Transforming mindset, while honoring their legacy. Individual leaders receive coaching on their action logic based in the Global Leadership Profile™ (individualistic, left brain). They use the Transformations™ tool (more collectively-accessible, right brain) to explore the complex, messy reality of how a variety of action logics – not only their current "score" – plays out in their own lives and in their shared leadership culture. The message is that everyone can participate in the important work of redefining and transforming, and everyone is supported in a leadership strategy that integrates both conventional and post-conventional action logics.

Stages and States of Development

Both *stages* and *states* are key aspects of human development. However, VLD has become largely synonymous with "stage theory." States are sometimes devalued or overlooked, and are often seen as lesser, impermanent outcomes.

A *stage of development* is defined as an individual's dominant action logic and their center of gravity. A new stage of development represents a transformation to a whole new way of thinking and acting. A change in stage in adulthood typically takes several years.

The *state* of a person is about what is happening in consciousness from moment to moment. States are transient, although they may be repeated, and may represent an enduring potential.

One way we develop is through moments of extraordinary states of experience. Leadership can happen in such moments.

States of development need not be durable to be beneficial or formative, as for example the experience of flow, meditative states and peak experiences. A state of disequilibrium can be a most creative state in terms of human development (Bridges, 1988; Kelly, 1955). States are influenced but not determined by current stage. States are often evoked by environment and context. We live in an era in which the states of consciousness available to human beings are of seemingly endless variety.

We observe that state change is the daily work of every leader involved in the work of transformation. To be concerned with states is to be concerned with the here and now. Concern with stages is more likely to be abstract and hypothetical.

The downsides of an excessive emphasis on stages of development can be serious and limiting. Vertical development is often misunderstood as a caricature and represented as a linear and hierarchical series of stages in which higher is better. Most critically, this caricature can draw attention away from the present moment. It can hide the inherent messiness of development. It can merely reinforce the Achieving action logic rather than transcending it. A stage score, when over-emphasized, can become an enduring label or even an identity. The prospect of stage change can be a shiny object that first attracts then disappoints.

We balance this by increased focus on states, while relaxing the strong emphasis on stages. The notion of stage change can become a scaffold. The idea of stage change is important, and yet we tend to keep it in the background so it serves as a longer-term vision or compass. We are very intentional about when stage change is in the spotlight. States of development become the spotlight or foreground.

In this formulation, facilitation and coaching become means of inducing states of development in the here and now, while doing real work. We can practice post-conventional action logics *right now*, with each other, in how we create shared DAC.

Even brief interventions can potentiate the development of recurring states by providing glimpses of successful new ways of thinking and acting and by disturbing the equilibrium of existing stages.

Headroom is the idea that top leaders in an organization can create a transformational environment is which people are given the time and space to practice new mindsets – and related states of development – safely and in a learning context (Palus, McGuire, & Ernst, 2012, chapter 28).

We use our tools to set people up for shared state experiences. This is one of the primary payoffs of the Leadership Culture Rubric (discussed in a later section), in which team members practice the next level of behaviors, and also have a way of identifying behaviors that are "old" behaviors that one may still use but are less effective. The more that advanced states are practiced together in the action of the organization with others, the more likely that state of belief and behavior is to become "sticky" when it works for everyone's benefit.

This approach sets up ways for individuals and groups to try on behaviors that they may not even have thought of trying – or didn't even know existed. As people practice the next level of behaviors – and become aware of the alternate beliefs that drive them – they see the payoffs in action.

In this way, action inquiry and later action logics are experienced as tools to do certain kinds of work in a supported context. If successful or sufficiently

provocative, the tool expands in the consciousness of the users, doing more kinds of work, until it becomes part of a new center of gravity. William Perry (1970) called this move in development a "Trojan Horse" – a kind of takeover of consciousness by new memes disguised as attractive tools or art.

A leadership program or coaching encounter thus becomes a practice field and a "holding environment" (Kegan, 1994) for transformation, not just a forum for transactional teaching and learning (Palus & Drath, 1995). In such an environment, people engage in action inquiry while engaged in the real work of leading and shared meaning making. For example, highly challenging yet transient *heat experiences* brought into a leadership development program help push boundaries and explore breakthroughs (Petrie, 2014). The dialectical process of action inquiry is a complex interplay of logics, states and stages evoked in the problems of living and leading.

Experiencing a *state* can be a precursor or stepping stone to a stage changes, as the practice of the state becomes a habit (Cook-Greuter, 2000).

The work of the facilitator or coach is to help the person to accommodate these transient states into a new mode of consciousness, rather than reflexively assimilate them to the old mindset. This process of accommodation – the reorganization of one's epistemology – is an essential motion of development (Piaget, 1954).

In summary, leadership development programs help people acquire new, revised and alternative ideas, maps, insights and perspectives. These will almost certainly not be integrated immediately into a whole new developmental stage—neither will they easily assimilate into one's present stage of development (assuming the participant is matched with a program meant to challenge the person beyond his or her own present stage of making meaning). At first, these new meaning structures may be exercised as tools – with a longer-term potential of fostering a whole new way of looking at things.

Left-mode and Right-mode Cognition

Optimal learning is an integration of left-mode (left-brain dominant) and right-mode (right-brain dominant) perception and cognition (McCarthy, 1996). Left-mode cognition is linguistic, logical, abstract and analytic. Right-mode is intuitive, visual, concrete and synthetic. Neither pole exists without the other. Much of classroom teaching and formal training tends to be left-mode dominant.

Leonard Shlain (1999) traces this left-mode dominance to the ascendance of alphabetic communication as accelerated by the invention of the alphabet and then the printing press. In this view, society has recently been re-balancing these left and right modes. This is occurring through the ascendance of visual cultures as accelerated by photography and the internet, and catalyzed by the advent of women's rights and egalitarian norms.

The dominant pole in the field of VLD tends to be left-mode, reflecting its academic and scientific origins. Artistic sensibilities are de-emphasized in favor of formally scientific ones, emphasizing the precision of language and concepts. Formal assessment of individual stages is linguistic and analytical in nature

(i.e., Sentence Completion Tests and Subject-Object Interviews). Susanne Cook-Greuter points out the central role of language in consciousness ("the language habit") and how this can eventually become a barrier to post-conventional development (Cook-Greuter, 1995, 2000). It is easy for VLD to slip into the Expert mindset of abstract representation and either/or categorization.

VLD in its nuanced and mature expressions, on the other hand, integrates (or doesn't separate to being with) left-mode and right mode cognition. For example, Jean Piaget observed complex behaviors in children. Bob Kegan's roots are in empathic counseling. Carol Gilligan explored relational thinking as compared to linear thinking in human development (1977). Torbert animates his approach with performative experiments in the Theater of Inquiry (Torbert, 2019), and Cook-Greuter leads her clients in deep storytelling and mutual awareness. Human development is a poetic endeavor.

Consider the Four Parts of Speech of action inquiry, defined as *framing*, *advocating*, *illustrating* and *inquiring* (Torbert & Associates, 2004). It is common for these to be introduced as an abstract model, and initially practiced as an exercise in rhetoric. In their mature expression these integrate left- and right-mode cognition. Each require here-and-now presence, intuition and metaphoric thinking (right mode) as well as language, analysis and abstract reasoning (left mode). For example, *illustration* is most engaging when imagery and metaphor are aligned with verbal precision – think of Lincoln's Gettysburg Address.

All of this is an invitation to think of integrated VLD theory and practice as an aesthetic realm informed by artful inquiry (Palus & Horth, 2002; Taylor, 2017; Torbert, 1976). In a later section we look at the example of the Transformations™ card deck, a visual/tactile tool for exploring human being and development.

Spotlight and Scaffold Focus

When working with and applying the ideas of vertical development, one has two options:

Scaffold: The theory is in the background and interpretive lens of the designers.
Spotlight: The theory is featured and taught in some way.

Vertical development is useful both as a spotlight *and* as a scaffold. Practitioners in the field of VLD will often focus the work so that the vertical framework is in the spotlight. Maturity as a practitioner involves knowing how and when to focus on the framework itself, and how and when to use it in the background. It is the art of shifting between figure and ground.

When we *spotlight* vertical development, we share the underlying models of growth with our client or audience. The vertical model becomes an explicit roadmap by which people navigate their own and other's development as leaders. As a spotlight it is used in those specific situations when the vertical model itself is useful to the participants – which is increasingly often – such as when coaching with the Global Leadership Profile™ (Global Leadership Associates), working with senior leader teams, and navigating change in cultures and societies.

When we *scaffold* vertical development, we use it in the background, or in a kind of soft focus, as a design and research tool. Vertical is built into the work, but may not be readily visible to the participant.

The spotlight end of the polarity often gets exaggerated in professional practice. Beginners and enthusiasts are attracted to the spotlight of the vertical frameworks, especially the notion of stages. Practitioners run the risk of ego inflation. Vertical can become something packaged and sold.

The vertical approach is a key scaffold in our work because it is a powerful model of how humans learn, grow and change within larger social systems. For example, the vertical approach is a powerful scaffold for the discipline of *systems thinking* (Senge, 2014). Each action logic regards the idea of "systems" in a different way. An Expert logic is necessary but not sufficient for dealing with systemic complexities. An advanced Achieving logic is sufficient for grasping and leveraging the subtleties of systems but not for transforming them intentionally. And perhaps the Alchemical logic grasps that each action logic plays its role in the chemistry of what actual happens in the theater of inquiry, and the ultimate aim includes moral human development.

The vertical scaffold becomes a key component of our own inquiry as practitioners. VLD practitioners often become adept – or to believe they are adept – at "scoring" individual and collective action logics in situ and responding accordingly. The mature VLD practitioner will use subsequent client behavior as a test of their preliminary estimate. Skilled VLD facilitators can pose key questions or challenges in the context of the senior team's strategic work and then observe, record and reflect team member's behavioral responses. Such data will suggest patterns in their individual and collective action logics.

The scaffold end of the polarity is more subtle, systemic and sustaining. Master practitioners learn to wield the vertical ideas in a timely and agile way, often in the moment when insights are needed. The ability to shift the theory from foreground to background, and vice versa, provides versatility in working with many different kinds of audience, operating among a variety of action logics themselves.

Rebalancing the Polarities

New levels of synthesis and effectiveness in our theory and practice are the longer-term rewards for paying attention to and rebalancing these complementarities.

One useful approach is offered by Barry Johnson (1992). In this view, the two poles are always interdependent. We can aspire to the best in each pole while trying to avoid the excesses of each. This often works as a general strategy. For example, the 4MAT system of experiential learning alternates between left-mode and right-mode learning methods (McCarthy, 1996). Awareness and inclusion of the submerged poles – and action inquiry around such moves – by those of us engaged in vertical practice is a good place to start.

A dialectical approach means acknowledging and accepting tensions in the poles, while engaging in dialogue within ourselves and with others. Yin and

yang as archetypes are themselves in constant dialogue and we can learn to pay attention to this.

This goes beyond simply "both/and" and "the best of both worlds" outcomes. Dialectical thinking indicates that new things can arise from the clash and interrogation of these opposites and paradoxes. The dimensional axes indicated by the poles represents an expanded design space for creating new ideas, methods and tools for VLD. Potentially this transformed design space is an alchemist's playground.

Within this expanded design space, we have been exploring tools and methods for making our theory and practice more engaging and effective.

In this section, we offer three examples of tools and methods created in the expanded design space afforded by the VLD polarities. These are:

- Transformations™ card deck;
- the Leadership Culture Rubric; and
- evaluation of leadership culture transformation.

The Transformations Card Deck

Transformations™ is a versatile tool for facilitating developmental conversations and self-reflection based in Bill Torbert's *Seven Transformations of Leadership* framework (Torbert & Associates, 2004).[2] Transformations is a tangible, portable model of human consciousness, its catalysts and markers, and its potential for evolution. Transformations affords exploration and inquiry of what it means to be individually and collectively human.

Transformations consists of two types of cards. *Life Logics* cards (Fig. 2) illustrate and model the seven stages of the framework, with 12 cards each for *Opportunistic, Diplomatic, Expertise, Redefining, Transforming* and *Alchemical* logics. *Catalyst* cards portray 50 markers, correlates or catalysts of human development such as *courage, crisis, death, dialogue, doubt, forgiveness* and so on. Each card has a drawing plus a label (a "meme" in current jargon) that together illustrate the concept.

Typically, the deck is used to create and explore life-journey narratives, for example with an instruction to "choose three cards, one each to represent your past, present, and future."

Transformations is a result of our vision of democratizing leadership development (Altman, Rego, & Harrison, 2010). One of the dualities in Table 1 is *elite and universal*. The work of VLD historically has benefitted the elite, notably in corporate America. Our imbalanced dualities hypothesis suggests that we might make VLD more universal by simultaneously addressing the entire set of dualities as yin–yang complementarities.

---

[2]The deck is owned by the Center for Creative Leadership, and developed in action inquiry with Bill Torbert, Elaine Herdman-Barker, and Global Leadership Associates.
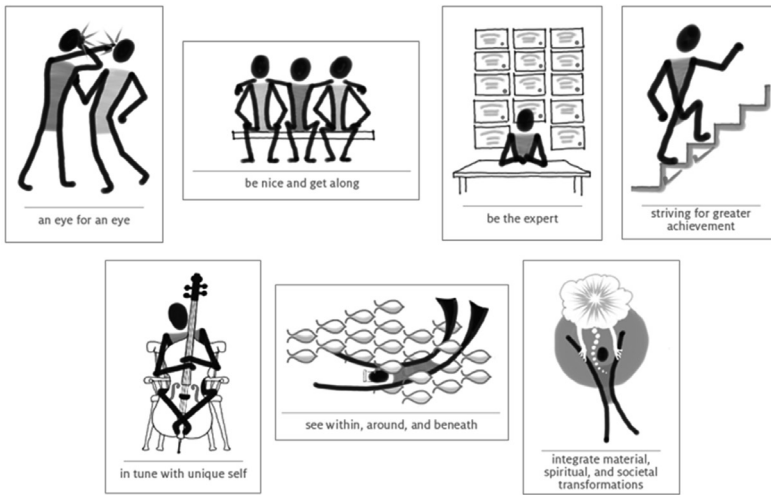
Fig. 2.   One Transformation Card Representing Each Action Logic.

A key move in designing Transformations is taking an artistic approach and balancing the left/right-mode complementarity. Our "graphic developmentalo-gist" Bruce Flye was commissioned to create the artwork. Each drawing is an essential expression of the accompanying phrase. After much artistic explora-tion, the entire set of drawings has become aesthetically coherent and com-pelling. The glyphs are at once both primitive and post-modern and aren't obviously tied to any parent culture. The drawings are both whimsical and seri-ous. The cards help tell stories. They invite metaphors. Each card is an engaging, concrete point of focus. The result is an artifact that captures the imagination. Users of the tool are often "drawn by the pictures" even when they don't speak the language on the labels. The cards make vertical development less abstract and more tangible. The resulting tool, in our experience, is universally engaging to people in a wide variety of cultures (especially with language translation) and all ages.

The cards encourage serious play. One holds the cards and passes them around, as in a card game. Fun ensues.

We took a scaffold approach with respect to the underlying *Seven Stages of Transformation* model. A casual user handling the cards is not aware of the model. A key to which of the seven action logics the card represents is subtly placed in the corner of the back of the card. Thus, the deck can be used to explore life journeys in an open ended way, without jargon. *And* the deck can also be easily used to explicitly teach the VLD framework. Thus, learners can have the imme-diate experience of the domain of human maturation and development (right mode) *before* they are formally introduced to the vertical concepts (left mode), per McCarthy's 4MAT Learning Model (1996).

Thus, the Transformations deck lends itself to both scaffold and spotlight con-texts. On one hand, participants never need to see the stage names or use the

vertical framework. In scaffold mode, the cards are used to tell stories, or reflect on personal and team dynamics. On the other hand, the cards can be laid out in order of stage such that they teach the vertical framework.

Transformations cards engage collectives as well as individuals. We often start with individual card play and personal life journeys, and then segue into discussing the collective beliefs and behaviors, and talk about leadership cultures and collective journeys.

Transformations cards engage states as well as stages. That is, the cards can be chosen to describe a transient state as well as a more enduring center of gravity. The cards are not judgmental of one's "level of development" (stage) and invite the user's self-reflection about how they engage the world (states). People may choose cards that represent a peak experience, or that indicate extremes rather than what is typical. The cards help people see development as complex and non-linear – and messy – more so than as a stair-step of all-or-nothing stages.

The Leadership Culture Rubric

A rubric is a tool used in educational and developmental contexts for defining and assessing what "good" and "effective" mean at different levels of performance in a complex domain with hard-to-measure constructs (King, McKegg, Oakden, & Wehipeihana, 2013; Oakden, 2013). They are also used for evaluating the effectiveness of particular interventions, with multiple levels of progress toward the end goals (Davidson, Wehipeihana & McKegg, 2011).

With these various uses in mind, we have adapted rubrics to our purposes in VLD. Rubrics paint a holistic picture of what progress on cultural dimensions would look like initially, later, and in the long-term. You can then use the data you've gathered to assess where you are on the journey, using clearly articulated criteria.

A key challenge in VLD is helping groups become aware of their own leadership culture – the beliefs and practices that shape how they create shared DAC. For example, imagine a team whose members are generally compliant to a dominant leader. Their overall center of gravity as a team tends to be in the Diplomatic action logic. The challenge in this case is about how to help the team become self-aware of their usual ways of working, as well as how to help the team aspire to different beliefs and practices. Objective assessments can be useful but can be difficult to apply to a team's day to day work and the vertical mindsets entailed. Creating self-reflective dialogue is important.

We created the *Leadership Culture Rubric*™ to help people pay attention to and reflect upon their own leadership culture, and to have criteria by which they can evaluate their progress in developing particular dimensions of leadership culture.

The Leadership Culture Rubric, in its current version, uses four categories of observable leadership beliefs and practices:

- conflict,
- risk,
- decisions, and
- feedback.

These four categories form the rows of the rubric.

We chose these particular four as a compact and face-valid list of leadership behavior categories that people practice and develop, collectively and habitually – that is, culturally – in team and organizational contexts. These four categories of interpersonal interactions hold the basic competencies required for engaging, working and learning together in any group environment. These categories were predominant in our study of interdependent leadership cultures (McCauley et al, 2008). These also align with four major clusters in the Center for Creative Leadership (CCL) *Benchmarks by Design* (v. 4.1) 360 individual assessment which represent interpersonal behaviors.

The columns are derived from the middle five of *The Seven Transformations of Leadership* framework (Torbert et al., 2006): *Diplomatic, Expertise, Achieving, Redefining and Transforming*[3] (see Fig. 3). We do not explicitly address *Opportunistic* and *Alchemist* in this version, both for simplicity and because cultures at those two extremes are relatively rare.

The content of the cells in the table were crafted through collaborative inquiry among our project team, colleagues and clients. Each cell contains one or more declarative statements designed to represent the practical expression of the action logic of that cell in terms of shared beliefs and leadership practices. For example, in Fig. 4, the cell for Conflict/Expert contains the two sentences: "Conflict is resolved by experts with the right answers. Conflict results in winners and losers."

The rubric is typically used in team development contexts. Each person starts with their own copy and marks each row with one red dot and one green dot. Red is for current state and green is for desired future state. Often, we ask them to think about a point in their past, and use another color for that. Then, all members roll-up their dots to a poster sized version. Each member gets to see how the others voted. Dialogue ensues (Palus & McGuire, 2015).

The team discussion holds the tensions in the increasing differences in mindset in moving left to right across the rubric though later logics. The individual and social challenges in maturing together tend to become obvious.

Here are some of the ways that the Leadership Culture Rubric helps integrate the dualities.

Individual/Collective.   The Rubric focuses on the collective leadership culture. It shifts the conversation from my action logics to our action logics. At the same time, it is clear that each individual has a stake and a role. We often ask each individual to reflect upon their own role in creating the shared leadership culture. The labels on the rows (behavioral domains) and the labels on the columns (action logics) of the Rubric all can be read individually as well as collectively.

Stages/States.   At first glance it might appear that the Rubric is a stage assessment tool at a team level. In fact, it does function partly in this way.

---

[3]These labels have all been translated into the active gerund form, such that *Opportunist* has become *Opportunistic* and so on. This is done to capture the dynamic aspect and to avoid the noun forms which are too often used as individual labels.
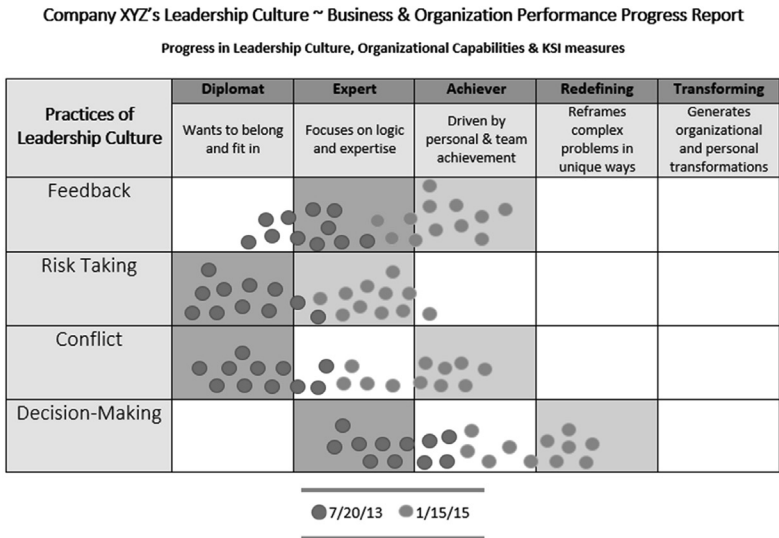
Leadership Culture Map™

Highlight phrases that are like, and unlike your group / organization / community. Where do you want / need to be?

Feedback	We avoid feedback. We value face-saving over directness.	Feedback is around task performance. Feedback focuses on norms and standards.	We have routine systems for feedback aimed at key competencies and objectives.	Mutual feedback is a strong habit. We have frank and honest dialogue with each other.	We seek disruptive feedback from outside. We engage feedback that challenges the status quo.
Risk	Ideas are dismissed if they risk group cohesion. Only people with power may take risks.	We collect and analyze data to justify risks. We value technical expertise in assessing risk.	Risk-taking is driven by ambition to achieve personal and group goals. We are territorial.	We sometimes challenge the status quo. We encourage and pursue new ideas. We take risks to innovate.	We take transformational risks for our mission and to shape our larger society.
Conflict	We avoid open arguments. Conflict is resolved politically or by authority.	Conflict is resolved by experts with the right answers. Conflict results in winners and losers.	Peers negotiate with independent goals. Managers resolve conflicts for functional success.	We value conflict for exploring new viewpoints and possibilities. Conflict is used to bridge silos. Conflict can generate multiple right answers.	We use conflict to transform ourselves and to generate something new. Open disagreements lead to public learning.
Decisions	Those with power dominate key decisions. Decisions align with tradition and custom.	Key decisions are based on expert knowledge or follow technical rules.	We advocate for our own positions. Decisions are reached through influence and compromise.	Decisions are reached by input and consensus from diverse stakeholders. We regularly reframe our assumptions.	We are empowered to make decisions interdependently. Societal impact is an important factor in decisions.

Leadership culture development = Transcend and include the columns from left to right.

Contact Charles J. Palus, palusc@ccl.org

Fig. 3.   The Leadership Culture Map™ for Self-assessing Group Action Logics.

Company XYZ's Leadership Culture ~ Business & Organization Performance Progress Report

Progress in Leadership Culture, Organizational Capabilities & KSI measures

Practices of Leadership Culture	Diplomat	Expert	Achiever	Redefining	Transforming
	Wants to belong and fit in	Focuses on logic and expertise	Driven by personal & team achievement	Reframes complex problems in unique ways	Generates organizational and personal transformations
Feedback					
Risk Taking					
Conflict					
Decision-Making					

● 7/20/13   ● 1/15/15

Fig. 4.   Sample Self-assessment of Group Action Logics over Time.

Some teams do exhibit a high degree of consistency in their leadership culture. And at the same time, the Rubric is designed to help teams pay attention to the variable and changing states of their leadership culture, in different contexts. It invites reflection and dialogue about "times we are at our best" and "times we are at our worst." "How can we practice Redefining?" What kind of leadership culture do we need to realize our strategies?" "What are new ways we can work together more interdependently?"

Left-Mode/Right-Mode.   The Rubric itself is "all language." It represents a Cartesian analysis of intersecting categories. It is certainly very left-mode in its design.

At the same time, the Rubric has been designed to become a tangible, physical, aesthetic object that invites interaction, reconstruction, pattern recognition and dialogue. The grid becomes transformed into a unique, expressive image infused with meaningful colors and shapes what was once dry and orderly become messy and interesting.

The Rubric becomes an object of serious play. It is visually attractive as group members are asked to "vote with dots." People stand together at the poster and jostle shoulder to shoulder. The dialogue becomes a bit less abstract and logical and a bit more R-mode, spatial, relational and patterned. The poster typically remains on the wall along with other visual artifacts (such as Transformation cards and Visual Explorer) created during the session, creating a playful visual surround (Palus & Horth, 2007).

Spotlight/Scaffold.   We have two main versions of the Rubric. The original version is denser and more formal in its language. The stage labels are presented explicitly at the tops of the columns. It is typically used in situations such as

long-term evaluations in which the users are familiar with the theory. The version we call the Leadership Culture Map™ is more streamlined and user-friendly. The Map version does not have short descriptions or labels of the action logics for each column. Thus, the Map version is very useful in holding the vertical theory and jargon in the background as a scaffold. Sometimes we begin working with a team with the Leadership Culture Map, and only later (if ever) announce the theory. We have found this spotlight/scaffold versatility to be very effective in our work.

Evaluation of Leadership Culture Transformation

Change efforts require ongoing evaluation of processes and outcomes. Evaluation is an organized source of feedback as well as a means of discovery. Evaluation is itself part of the transformative process.

Like other aspects of VLD, evaluation often gets embedded in an expert mindset. In this logic, evaluation is entirely objective, independent, rational, episodic, quantified and orderly. The reality is that development is messy and mysterious, with states and stages overlapping, parallel and sometimes simultaneous.

> A metaphor that better communicates the unexpected twists that an action-logic engages in as it transforms toward wider inclusiveness might be "a backward stumbling double somersault through a trap door. (Torbert, 2013, p. 270)

Sustained, intentional transformation requires some form of *collaborative developmental action inquiry* (Torbert, 2006). Conscious, reflective, on-going dialectical learning processes are required. "Ongoing evaluation of the change initiative will promote new ways of thinking, create new practices, shape discussions and provide a practice ground for dialogue and a structure for collective learning" (Stawiski, McGuire, & Patterson, 2018, p. 1). A more transforming approach to evaluating leadership culture integrates the complementarities we have been discussing and thus becomes post-conventional in spirit.

Individual and Collective.   VLD is both individual and collective. Evaluation approaches can be highly personal, such as looking at individual 360 data, gathering individual stories, documenting how a shift in a belief led to a change in behavior and so on. This is useful and a key step is apprehending what it means to vertically transform at the collective level. This involves much more than just the sum of the achievement of individual development goals.

We identify the collective aspect as *leadership culture*. Leadership culture is the key to organizational transformation when a fundamental shift in beliefs and practices is required. Tools like Transformations and the Leadership Culture Rubric help make leadership cultures visible and tangible as they evolve, and reveal the patterns of connection to meaningful results.

Stages and States.   Quite often our clients aspire to an interdependent leadership culture. Sometimes we talk of this as a stage of culture, and it is usually more

accurate to describe interdependence as a set of changing states within a dynamic system that also includes dependent and interdependent beliefs and practices.

To assess such transient states, evaluation of leadership culture initiatives can involve in the moment sense-making, and using inquiry methods to ask "What is happening right now?" as a way of learning, reflecting and understanding progress. "Pulse checks" (very brief just-in-time digital surveys) allow the same type of reflection on a large scale, assessing how specific events are perceived by staff and what leadership practices and beliefs were triggered as a result.

Left Mode and Right Mode.   Traditional analytical (left mode) evaluation methods are indeed useful when evaluating culture change initiatives. Surveys yield quantitative data. Scorecards of organizational data can be tracked and analyzed.

And yet overemphasis on analytical methods can miss the bigger picture. A more right-mode approach of story-telling and dialogue can discern the underlying narrative, emotions, and beliefs, and capture a more systemic, dynamic description of change.

Scaffold and Spotlight.   Evaluation shifts from a just another add-on event, to an ongoing discovery and inquiry into processes as well as outcomes.

For example, much of the work of actually developing your leadership culture can also be input into an assessment of whether progress toward intended outcomes is being made. Imagine a fishbowl dialogue where teams are learning how to raise difficult topics and gain the perspectives of others in these topics. This is the work of culture change and it can be used as qualitative data that informs the evaluation effort.

Another example: Asking people to respond to questions such as "What is the biggest shift in leadership culture you have observed?" and sharing all submitted responses publically is a way of engaging people in the development of their culture while also collecting data for evaluation purposes.

This shift to evaluation as a scaffold for development includes shifts:

- from waiting to deliver a final polished evaluation report to using data in real-time to facilitate learning, and to both formal and informal evaluation;
- from only senior leaders are informed to everyone sees and has the opportunity to make sense of data; and
- from measuring results as separate to ongoing evaluation as integral in the change process.

Conclusion

There is a tendency in the field to practice leadership development at the conventional levels of Expertise and Achieving. These opposites and imbalances in the work of VLD become better integrated as our own practices follow a path of maturity. Our aim is to become more alchemical in how we conduct VLD. This means transcending and yes including all of the action logics in the seven-stage model. Let's be impulsive, sometimes. And let's peak beyond

alchemical. For the benefit of society worldwide, leadership development can be organized from the highest orders of consciousness that we humans can muster, while including everybody, everywhere. This is one of the toughest and best polarities. Let's do it.

References

Altman, D. G., Rego, L., & Harrison, S. D. (2010). Democratizing leadership development. In C. D. McCauley & E. Van Velsor (Eds.), *The center for creative leadership handbook of leadership development* (3rd ed., pp. 221–250). San Francisco, CA: Jossey-Bass.

Bakan, D. (1966). *The duality of human existence*. Skokie, IL: Rand McNally.

Basseches, M. (2005). The development of dialectical thinking as an approach to integration. *Integral Review*, *1*, 47–63.

Bridges, W. (1988). Surviving corporate transition: *Rational management in a world of mergers, layoffs, start-ups, takeovers, divestitures, deregulation, and new technologies*. New York: Doubleday.

Conte, A. (2014). Polarities as a core element of integral theory. *Journal of Integral Theory & Practice*, *9*(2), 92–103.

Cook-Greuter, S. R. (1995). Comprehensive language awareness: A definition of the phenomenon and a review of its treatment in the postformal adult development literature. Cambridge, MA: Harvard University Graduate School of Education.

Cook-Greuter, S. R. (2000). Mature ego development: A gateway to ego transcendence? *Journal of Adult Development*, *7*(4), 227–240.

Davidson, E. J., Wehipeihana, N., & McKegg, K. (2011, September 1). The rubric revolution. Paper presented at the Australasian Evaluation Society Conference, Sydney, Australia.

Drath, W. H., & Palus, C. J. (1994). *Making common sense: Leadership as meaning-making in a community of practice*. Technical Report No. 156, Center for Creative Leadership, Greensboro, NC.

Fang, T. (2012). Yin Yang: A new perspective on culture. *Management and Organization Review*, *8*(1), 25–50.

Gao, H., Ren, M., & Miao, Q. (2015). A Yin–Yang perspective of relational (Guanxi) gatekeeping in business network management in China. *Academy of Management Proceedings*, *2015*(1), 13002.

Gebser, J. (1974). Integral consciousness. *Main Currents in Modern Thought*, *30*(3), 107–109.

Gilligan, C. (1977). In a different voice: Women's conceptions of self and of morality. *Harvard Educational Review*, *47*(4), 481–517.

Harvard Business Publishing. (2018). *The 2018 state of leadership development report.* Cambridge, Massachusetts.

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.

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 Review Press.

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

King, J., McKegg, K., Oakden, J., & Wehipeihana, N. (2013). Evaluative rubrics: A method for surfacing values and improving the credibility of evaluation. *Journal of Multidisciplinary Evaluation*, *9*(21), 11–20.

Leslie, J. B., Li, P. P., & Zhao, S. (2015). *Managing paradox: Blending East and West philosophies to unlock its advantages and opportunities*. CCL White Paper Series. Center for Creative Leadership, Greensboro, NC.

Li, P. P. (2014). The unique value of Yin–Yang balancing: A critical response. *Management and Organization Review*, *10*(2), 321–332.

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

McCauley, C. D., Drath, W. H., Palus, C. J., O'Connor, P. M. G., & 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., O'Connor, P. M. G., & Van Velsor, E. (2008). *Interdependent leadership in organizations: Evidence from six case studies*. CCL Research Report No. 190, Center for Creative Leadership, Greensboro, NC.

McGuire, J. B., & Palus, C. J. (2018, August). Vertical development of leadership culture. *Integral Review*, *14*(1), 144–166.

McGuire, J. B., Palus, C. J., & Torbert, W. R. (2007). Toward interdependent organizing and researching. In A. B. Shani, S. A. Mohrman, W. A. Pasmore, B. Stymne, & N. Adler (Eds.), *Handbook of collaborative management research* (pp. 123–142). London: SAGE Publications.

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

Oakden, J. (2013). *Evaluation rubrics: How to ensure transparent and clear assessment that respects diverse lines of evidence*. Melbourne, Australia: Better Evaluation.

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

Palus, C. J., Harrison, S., III, & Prasad, J. J. (2016). Developing relational leadership in Africa. In *Creative social change: Leadership for a healthy world* (pp. 181–197). Bingley: Emerald Publishing Limited.

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., & Horth, D. M. (2007). Visual explorer. In P. Holman, T. Devane, & S. Cady (Eds.), *The change handbook: The definitive resource on today's best methods for engaging whole systems*. San Francisco, CA: Berrett-Koehler Publishers.

Palus, C. J. & McGuire, J. B. (2015). Mediated dialogue in action research. In H. Bradbury (Ed.), *The SAGE handbook of action research* (691–699). Los Angeles, CA: SAGE Publications.

Palus, C. J., McGuire, J. B., & Ernst, C. (2012). Developing interdependent leadership. In S. Snook, N. Nohria, & R. Khurana (Eds.), *The handbook for teaching leadership: Knowing, doing, and being* (pp. 467–492). Cambridge, Massachusetts: Sage Publications with the Harvard Business School.

Perry, W. G. (1970). *Forms of intellectual and ethical development in the college years: A scheme*. New York, NY: Holt, Rinehart and Winston.

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

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

Senge, P. M. (2014). *The fifth discipline fieldbook: Strategies and tools for building a learning organization*. London: Crown Business.

Sharma, B., & Cook-Greuter, S. R. (2010). Polarities and ego development: Polarity thinking in ego development theory and developmental coaching. In *The 2nd biennial integral theory conference*. Pleasant Hill, CA: JFK University.

Shlain, L. (1999). *The alphabet versus the goddess: The conflict between word and image*. New York, NY: Penguin.

Snow, C. P. (1956). The two cultures. *New Statesman*, *6*, 413–414.

Stawiski, S., McGuire, J. B., & Patterson, T. (2018). *How to know if your culture change strategy is working*. CCL White Paper Series. Center for Creative Leadership, Greensboro, NC.

Taylor, S. S. (2017). William Rockwell Torbert: Walk the talk. In D. Szabla, B. Pasmore, & M. Barnes (Eds.), *The Palgrave handbook of organizational change thinkers* (pp. 1–16). New York, NY: Palgrave.

Torbert, W. R. (1976). On the possibility of revolution within the boundaries of propriety. *Humanitas*. *12*(1), 111–148.

Torbert, W. R. (2006). The practice of action inquiry. *Handbook of action research: Concise paperback edition*, 207–218.

Torbert, W. R. (2013). Listening into the dark. *Integral Review*, *9*(2), 264–299.

Torbert, W. R. (2019). *Numbskull: Born again & again & again: Transforming self, communities, and scientific inquiry*. Unpublished memoir.

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

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