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Leading complex change with post-conventional consciousness

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Abstract

Purpose – This paper aims to document how leaders with a highly-developed meaning-making system design and engage in sustainability initiatives.

Design/methodology/approach – In total, 32 leaders and change agents were assessed for their meaning-making system, or action logic, using a variation of the Washington University Sentence Completion Test; 13 were identified as holding the three rarest and most complex action logics able to be measured. Semi-structured, in-depth interviews explored their behavior and actions as related to complex change initiatives.

Findings – These leaders appear to: design from a deep inner foundation, including grounding their work in transpersonal meaning; access non-rational ways of knowing, and use systems, complexity, and integral theories; and adaptively manage through “dialogue” with the system, three distinct roles, and developmental practices. Fifteen leadership competencies and developmental stage distinctions for three dimensions of leadership were identified.

Research limitations/implications – The sample size leads to the findings being propositions that require further validation before broader generalization.

Practical implications – The results provide the most granular view to date of how individuals with highly complex meaning-making may think and behave with respect to complex change, offering potential insight into the future of leadership.

Social implications – The study explores how to cultivate leadership with the capacity to address complex social, economic, and environmental challenges.

Originality/value – The paper documents 15 competencies that are largely new to the leadership literature, and that reflect the actions of leaders operating with highly sophisticated meaning-making systems.

Keywords Management, Leadership, Leader development, Sustainability, Adult development, Change management, Metacognition, Organizational change

Paper type Research paper

1. Introduction

For humanity to achieve important objectives like the Millennium Development Goals and mitigating impact on the climate, significant changes in organizations and social systems are needed. Experience suggests that some change efforts toward a more sustainable world will work, while many may fail (Kotter, 1995). A crucial driver for the success of a change initiative is its design (Doppelt, 2010; Kotter, 1996), and an important influence is the designer’s worldview (Doppelt, 2010; Sharma, 2000). That is the focus of this research. I specifically studied how leaders with very mature worldviews, or meaning-making systems, design and engage in sustainability initiatives. By understanding how such individuals respond to complex challenges, other leaders can be trained to be more effective. This paper details the context, methodology, and findings of the study, and is a further analysis of data collected for my PhD research (Brown, 2011, 2012).



Decades of adult development research, specifically in the field of constructive-developmentalism (Cook-Greuter, 1999; Fingarette, 1963; Kegan, 1980; Kohlberg, 1969; Loevinger, 1966; Perry, 1970; Selman, 1974) provide insight into how different ways of meaning-making impact leadership. Scholars who take a constructive-developmental view of leadership (e.g. Harris and Kuhnert, 2008; Joiner and Josephs, 2007; Torbert *et al.*, 2004; Wagner and Kegan, 2006) question the underlying assumptions of many traditional leadership theories. They contend that what makes a difference in leadership is how one epistemologically makes sense of the content that underlies behavior or leadership style. That is, the actual surface content – what the leader does or believes – is less important than the deep structures from which it arises (Eigel, 1998). In sum, how a leader knows is at least as important if not more important than what a leader knows.

Constructive-developmental research shows that human meaning-making develops and becomes more complex over time, roughly growing from pre-conventional to conventional to post-conventional worldviews (Cook-Greuter, 2004; Kegan, 1982; Loevinger, 1976; O'Fallon, 2012). As individuals develop into post-conventional stages of meaning-making, novel capacities arise. These include increased cognitive functioning, strengthened personal and interpersonal awareness, increased understanding of emotions, and more accurate empathy (Kegan, 1994; Loevinger, 1976; Manners and Durkin, 2001). This increase in capacity – in turn – has been correlated with greater leadership effectiveness (Kegan, 1994; McCauley *et al.*, 2006; Rooke and Torbert, 1998; Strang and Kuhnert, 2009; Torbert *et al.*, 2004). As compared with leaders who hold conventional stages of meaning-making, leaders with post-conventional meaning-making are perceived as more effective. This is because they tend to think more strategically, collaborate more, seek out feedback more often, resolve conflicts better, make greater efforts to develop subordinates, and are more likely to redefine challenges so as to capitalize on connections across them (Joiner and Josephs, 2007). Thus, leaders with mature, post-conventional meaning-making systems have access to enhanced and new capacities that others may not. This seems strengthen their ability to respond to complex, ambiguous, and sophisticated challenges.

In this study I use the action logics framework created by Torbert and colleagues (Fisher *et al.*, 1987; Torbert, 1987; Torbert *et al.*, 2004). Based upon Loevinger's (1966, 1976) research into ego-development and self-identity, it was expanded upon by Cook-Greuter (1999, 2004). An "action logic" represents how we organize and interpret reality. It describes the developmental stage of meaning-making that informs and drives reasoning and behavior. It includes what we see as the purpose of life, what needs we act upon, what ends we move toward, our emotions and our experience of being, and how we think about ourselves and the world (Cook-Greuter, 1999; Torbert *et al.*, 2004). There are eight action logics prevalent in the adult population (see Table I).

My research focused on very rare leaders who hold one of the three latest, or most mature, action logics (i.e. Strategist, Alchemist, and Ironist). These individuals represent approximately 5-6 percent of the adult population in the US ($n = 4,510$; Cook-Greuter, 1999, 2004). At these very complex stages of development, many metacognitive (Metcalfe and Shimamura, 1994) and metaemotional (Gottman *et al.*, 1997) capacities arise, beyond those previously mentioned. These include the ability to: take a systems view and even a unitive view on reality; simultaneously hold and

Table I.
The eight most prevalent
action logics amongst US
adults, framed for
sustainability leadership

Action Logic and Focus	Implications for sustainability leadership	Strengths and limitations
<p><i>Pre-conventional stage</i></p> <p>The Opportunist focuses on own immediate needs, opportunity, and self-protection</p> <p><i>Approx. time horizon:</i> Now</p> <p><i>Approx. space frame:</i> Ego-centric</p> <p>5 percent of US adults</p>	<p>Wins any way possible. Self-oriented; manipulative; "might makes right". Little sensitivity to sustainability issues except when they represent a threat or foreseeable gain for the manager; resistance to pressure from stakeholders, who are viewed as detrimental to economic interests; sporadic and short-term measures</p> <p><i>Source of power:</i> Coercive (unilaterally), e.g. executive authority</p> <p><i>How influences others:</i> Takes matter into own hands, coerces, wins the fight</p>	<p><i>Strengths:</i> Good in emergencies and sales opportunities. May seize certain sustainability opportunities or react quickly in a crisis; superficial actions may be showcased opportunistically</p> <p><i>Limitations:</i> Pursuit of individual interests without regard for sustainability impacts; comprehension of sustainability issues limited to immediate benefits or constraints</p>
<p><i>Conventional stages of meaning-making</i></p> <p>The Diplomat focuses on socially-expected behavior and approval</p> <p><i>Approx. time horizon:</i> Past and today</p> <p><i>Approx. space frame:</i> Ethno-centric</p> <p>12 percent of US adults</p> <p>The Expert focuses on expertise, procedure, and efficiency</p> <p><i>Approx. time horizon:</i> Months</p> <p><i>Approx. space frame:</i> Early world-centric (all humans)</p> <p>38 percent of US adults</p> <p>The Achiever focuses on delivery of results, goals, effectiveness, and success within the system</p> <p><i>Approx. time horizon:</i> 1-5 years</p> <p><i>Approx. space frame:</i> World-centric (all humans)</p> <p>30 percent of US adults</p>	<p>Avoids overt conflict. Wants to belong; obeys group norms; rarely rocks the boat. Supports sustainability questions due to concern for appearances or to follow a trend in established social conventions; concerned with soothing tensions related to sustainability issues within the organization and in relations with stakeholders</p> <p><i>Source of power:</i> Diplomatic, e.g. persuasive power; peer power</p> <p><i>How influences others:</i> Enforces existing social norms, encourages, cajoles, requires conformity with protocol to get others to follow</p> <p>Rules by logic and expertise; seeks rational efficiency. Considers sustainability issues from a technical, specialized perspective; reinforcement of expertise of sustainability services; seeks scientific certitude before acting; preference for proven technical approaches</p> <p><i>Source of power:</i> Logistical, e.g. knowledge-based or authoritative power</p> <p><i>How influences others:</i> Gives personal attention to detail and seeks perfection, argues own position and dismisses others' concerns</p> <p>Meets strategic goals. Effectively achieves goals through teams; juggles managerial duties and market demands. Integration of sustainability issues into organizational objectives and procedures; development of sustainability committees integrating different services; response to market concerns with respect to ecological issues; concern for improving performance</p> <p><i>Source of power:</i> Coordinating (coordinating the sources of power of previous three action logics)</p> <p><i>How influences others:</i> Provides logical argument, data, experience; makes tasks/goal-oriented contractual agreements</p>	<p><i>Strengths:</i> Good as supportive glue within an office; helps bring people together. Reactive attitude with respect to sustainability pressures; consideration of regulatory constraints and the impact on the organizational image</p> <p><i>Limitations:</i> Superficial conformity to external pressures; absence of real reappraisal of how things are done, statements often contradict actions</p> <p><i>Strengths:</i> Good as an individual contributor. Development of sustainability knowledge within the organization; implementation of sustainability technologies</p> <p><i>Limitations:</i> Limited vision and lack of integration of sustainability issues; denial of certain problems; has difficulty with collaboration</p> <p><i>Strengths:</i> Well suited to managerial roles; action and goal oriented. Efficient implementation of ISO 14001 type management systems; follow-up of sustainability performance; more widespread employee involvement; pragmatism</p> <p><i>Limitations:</i> Difficult questioning management systems in place; conventional sustainability goals and measurements; lack of critical detachment with respect to conventions</p>

(continued)

Action Logic and Focus	Implications for sustainability leadership	Strengths and limitations
<p><i>Post-conventional stages of meaning-making</i></p> <p>The Individualist focuses on self in relationship to the system and in interaction with the system</p> <p><i>Approx. time horizon:</i> 1-10 + years</p> <p><i>Approx. space frame:</i> Early planet-centric (all sentence)</p>	<p>Interweaves competing personal and company action logics. Creates unique structures to resolve gaps between strategy and performance. Inclined to develop original and creative sustainability solutions, to question preconceived notions; development of a participative approach requiring greater employee involvement; more systemic and broader vision of issues</p> <p><i>Source of power:</i> Confronting; used to deconstruct other's frames or world views</p> <p><i>How influences others:</i> Adapts (ignores) rules when needed, or invents new ones; discusses issues and airs differences</p>	<p><i>Strengths:</i> Effective in venture and consulting roles. Active consideration of the ideas and suggestions of diverse stakeholders; personal commitment of the manager; more complex, systemic and integrated approach</p> <p><i>Limitations:</i> Discussions that may sometimes seem long and unproductive; idealism that may lack pragmatism, useless questioning of issues; possible conflict with Experts and Achievers</p>
<p>10 percent of US adults</p> <p>The Strategist focuses on linking theory and principles with practice; dynamic systems interactions; self-development and self-actualization</p> <p><i>Approx. time horizon:</i> Own history or lifetime</p> <p><i>Approx. space frame:</i> Planet-centric (all sentence)</p>	<p>Generates organizational and personal transformations. Exercises the power of mutual inquiry, vigilance, and vulnerability for both the short and long term. Inclined to propose a pro-sustainability vision and culture for the organization, more in-depth transformation of in-house habits and values; development of a more proactive approach conducive to anticipating long term trends; marked interest for global sustainability issues; integration of economic, social and sustainability aspects</p> <p><i>Source of power:</i> Integrative; (consciously transformative)</p> <p><i>How influences others:</i> Leads in reframing, reinterpreting situation so that decisions support overall principle, strategy, integrity, and foresight</p>	<p><i>Strengths:</i> Effective as a transformational leader. Changes in values and practices; real integration of the principles of sustainable development; harmonization of the organization with social expectations; long-term perspective</p> <p><i>Limitations:</i> Approach that may seem difficult to grasp and impractical; risk of disconnect with pressures to produce short-term profits; scarcity of Strategists</p>
<p>>4 percent of US adults</p> <p>The Alchemist focuses on the interplay of awareness, thought, action, and effects; transforming self and others</p> <p><i>Approx. time horizon:</i> Multi-generational; global historical</p> <p><i>Approx. space frame:</i> Kosmos-centric (manifest and unmanifest)</p>	<p>Generates social transformations. Integrates material, spiritual, and societal transformation. Re-centering of the organization's mission and vocation with regard to social and environmental responsibilities; activist managerial commitment; involvement in various organizations and events promoting harmonious societal development; support for global humanitarian causes</p> <p><i>Source of power:</i> Shamanistic (through presence)</p> <p><i>How influences others:</i> Reframes, turns inside-out, upside-down, clowning, holding up mirror to society, often works behind the scenes</p>	<p><i>Strengths:</i> Good at leading society-wide transformations. Active involvement in the comprehensive transformation of the organization and society; concern for authenticity, truth and transparency; complex and integrated vision</p> <p><i>Limitations:</i> Risk of scattering managerial and organizational efforts, to the benefit of the common good; losing touch with the primary vocation of the organization; extreme rarity of Alchemists</p>

1 percent of US adults

(continued)

Table I.

Table I.

Action Logic and Focus	Implications for sustainability leadership	Strengths and limitations
<p>The Ironist focuses on being as well as on witnessing the moment to moment flux of experience, states of mind, and arising of consciousness</p> <p><i>Approx. time horizon:</i> (Under research) All time; beyond time</p> <p><i>Approx. space frame:</i> (Under research) Kosmos-centric</p> <p>0.5 percent of US adults</p>	<p>Implications for sustainability leadership</p> <p>(Under research) Institutionalizes developmental processes through “liberating disciplines.” Holds a cosmic or universal perspective; visionary</p> <p><i>Source of power:</i> (Under research) Unitive worldview, transcendent awareness</p> <p><i>How influences others:</i> (Under research)</p>	<p>Strengths and limitations</p> <p><i>Strengths:</i> (Under research) Creates the conditions for deep development of individuals and collectives</p> <p><i>Limitations:</i> (Under research)</p>

Notes: The direction of development for action logics is from the Opportunist to the Ironist (and potentially beyond), Sample size for US population percentages: *n* = 4,510. Table compiled from four sources, with permission: Boiral *et al.* (2009), Cook-Greuter (2004), Rooke and Torbert (2005) and O’Fallon (2012)

manage conflicting frames, perspectives and emotions; and deeply accept oneself, others, and the moment, without judgment. Such individuals also report deep access to intuition and perceive their rational mind as a tool, not as the principal way to understand reality. They appear to heavily tolerate uncertainty and even collaboratively engage with ambiguity to create. Finally, they experience frequent “flow” and “witnessing” states of consciousness (Cook-Greuter, 1999, 2000, 2005; Joiner and Josephs, 2007; Nicolaidis, 2008). I was curious about how leaders with such complex action logics and access to these advanced capacities engage in change initiatives.

Besides constructive-developmentalism, I also drew upon sustainability leadership theory (Ferdig, 2007; Parkin, 2010; Quinn and Dalton, 2009). This field goes by various names, including corporate social responsibility leadership (D’Amato *et al.*, 2009; Maon *et al.*, 2009), ecocentric leadership (Shrivastava, 1994), environmental leadership (Berry and Gordon, 1993; Egri and Herman, 2000), ethical leadership (Banerjea, 2010; Ciulla, 1998), and green entrepreneurship (Pastakia, 1998; Walley and Taylor, 2002). Although there are calls for strong and courageous leadership to drive sustainability (Kakabadse and Kakabadse, 2007; Senge, 2008), few studies describe it in action (Cox, 2005; Van Velsor, 2009). I reviewed literature concerning sustainability leaders’ values and worldviews (Boiral *et al.*, 2009; Shrivastava, 1994; Visser and Crane, 2010), competencies (Boiral *et al.*, 2009; Cox, 2005; Hind *et al.*, 2009; Kakabadse *et al.*, 2009; Wilson *et al.*, 2006), and behaviors (Doppelt, 2010; Hardman, 2009; Portugal and Yukl, 1994; Quinn and Dalton, 2009). Most of that research was exploratory and none of it empirically measured the influence of complex meaning-making on sustainability leadership. Nonetheless, some studies strongly advocate for and describe the behaviors of sustainability leaders that have a sophisticated worldview (Boiral *et al.*, 2009; Doppelt, 2010; Hames, 2007; Hardman, 2009) or intellect (Waldman *et al.*, 2006).

2. Methodology and participant sample

This qualitative study employed semi-structured, open-ended interviews and was based upon Lincoln and Guba’s (1985) naturalistic inquiry. Participants enrolled through a nomination process underwent psychological assessment to determine their action logic. My sample consisted of leaders and change agents who had designed and implemented major sustainability initiatives within the past two years. This was defined as a program, intervention, or strategic project that aimed to improve social, economic, and/or environmental metrics for at least 1,000 people. The participants came from the private, public, and civil society sectors, and held mid- or senior-level positions.

I used a variation of the Washington University Sentence Completion Test (WUSCT; Loevinger and Wessler, 1970) to assess the meaning-making capacity, or action logic, of 32 leaders and change agents. The WUSCT has been extensively refined and validated (Cohn and Westenberg, 2004; Hauser, 1976; Loevinger, 1979; Manners and Durkin, 2001), and has been revised several times (Cook-Greuter, 1999; Hy and Loevinger, 1996). It is one of the most widely used measures of human development (Bartunek *et al.*, 1983; Cohn and Westenberg, 2004). From my original sample of 32, 13 assessed at the three latest stages measured by the instrument, resulting in a final sample of six Strategists, five Alchemists, and two Ironists. No other leadership study has had as many participants with documented, advanced

meaning-making capacity. The five female and eight male participants came from the European Union, North America, Oceania, and South America. Eight were from the private sector (including consultancies), one from the public sector, and four from civil society, with an average age of 43.6. I conducted semi-structured, in-depth interviews about their experience designing and engaging in sustainability initiatives. Through thematic analysis (Boyatzis, 1998) of the data, and building upon constructive-developmental and sustainability leadership theory, I developed my findings.

3. Summary of findings and discussion

I make three major propositions based upon the study. These leaders:

- (1) design from a deep inner foundation;
- (2) access powerful internal resources and theories to distill and evolve the design; and
- (3) adaptively manage the design.

Each proposition is supported by two or three major findings (see Figure 1).

Design from a deep inner foundation with profound trust

An example of my first proposition – regarding designing from a deep inner foundation – comes from Luz. An executive director of an NGO, she was assessed as an Ironist. Rather than viewing sustainability work as being of service to or acting on behalf of a greater other (e.g. humanity, nature), she experiences herself being in service as spirit, grounded in oneness. From this basis of operation she engages in sustainability initiatives.

Luz: What I do [to design a sustainability initiative] is follow the evolutionary arc. Right from the outset [I ask], “What is the first emanation of spirit and how can I align to that?” This might sound really weird but it just helps me to anchor [in the One] first and foremost. . . . What this mainly is as a design process is attuning to the fabric of consciousness as it’s evolving itself and going, “Okay, so where are we here?” . . . At the deepest essence, it feels like a quality of yoga, of seeing the One in whatever Many that is arising and attuning to that.

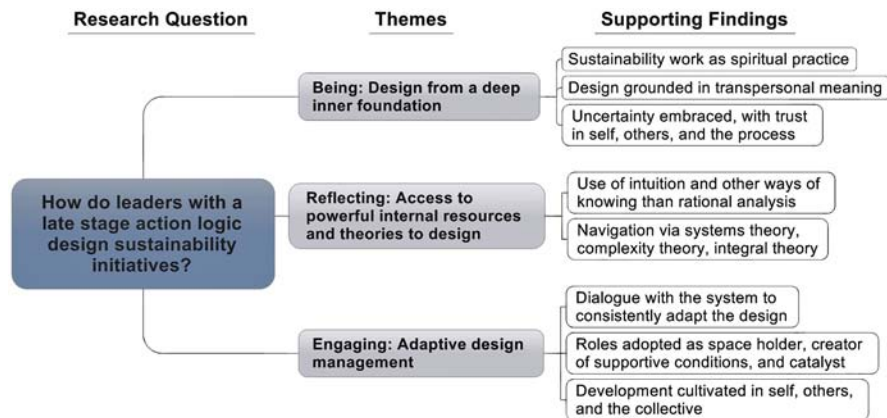


Figure 1.
Summary of findings

And then if there is suffering or there is pain, work to alleviate it. . . . But as much as I can, anchoring from that One.

My findings also suggest that these leaders are willing to not know, and will work with the uncertainties of the design process. They trust themselves, other actors, and the process they have created to navigate through ambiguity. This appears to help them manage complex initiatives in environments replete with unforeseen changes and influences. An example of this trust comes from Edward. He served a senior role within the United Nations system and was assessed as a Strategist. He responds to ambiguity with the belief that the group he is working with has the wisdom needed for its situation, and that the process for uncovering it simply needs to be trusted.

Edward: When I'm facilitating with a group, my deep belief . . . is that the answer is present in the room. [People] are pregnant with solutions, with answers, with wisdom, with understanding, with strategy . . . I design the initiative . . . based on the assumption that the people involved are the right people [and have] the power, the knowledge, the insight, the wisdom, and the capacity [to do this] . . . You have to trust the process and not panic.

Access powerful internal resources and theories

My second proposition concerns the internal resources these leaders access as well as three theories they utilize. When designing sustainability initiatives, all participants cited use of intuition and other ways of knowing than rational, logical analysis. They do use an objective, rational, and conceptual way of understanding to gain insight into the design, yet they also draw upon subjective, intuitive and/or other (nonrational) types of knowledge. Some claimed that by including intuitive insights their designs had better results, were easier to build, and that the process opened up an inspired, integrated design capacity. For example, Giselle is a leader focused on urban development and assessed as an Alchemist. She consciously engages with a “field of knowing” to design her sustainability initiatives. In this process, she shifts from believing she has control of the design to experiencing the design coming through her, such that she embodies it. She claims a far superior outcome as a result of not trying to rationally control production of the design.

These leaders also drew upon three theoretical frameworks to support and guide their approach:

- (1) systems theory (Bertalanffy, 1968, Laszlo, 1972);
- (2) complexity theory (Kauffman, 1995, Stacey, 1996); and
- (3) integral theory (Edwards, 2009, Torbert *et al.*, 2004, Wilber, 1995, 2000).

These theories seem to help them understand and navigate complexity. Most had had significant exposure to integral theory and cited it frequently. They used it for environmental scanning and assessment of situations, to support their own and others' development, to design interventions, and to tailor communications to different worldviews. Edward, an international development practitioner for 40 + years, noted that he and colleagues built large-scale, multi-country development programs based upon the integral framework.

Use adaptive design management

The third proposition concerns the actions these leaders took to develop and manage their designs, summarized as adaptive design management. The first aspect of this is that the participants consistently adapted their design as the context (e.g. systemic, cultural) shifted. They appeared to dialogue with the system(s) they worked with by listening for what was needed and responding accordingly. Specifically, they probed and tested the system, experimented with different interventions, and then regularly altered the design based upon feedback.

As they engaged initiatives with this rolling design approach, they also demonstrated different change leadership roles, perspectives on service, and design styles depending on their action logic (see Table II). This is the second aspect of adaptive design management. The Strategists focused more on assertively trying to catalyze change. They appeared to operate on the system, pushing and prodding it and influential stakeholders to change. The Alchemists and Ironists, in contrast, tended toward a softer approach. They tended to hold a more intersubjective or unitive relationship, respectively, with the systems in which they engaged. In that space, they focused on establishing the conditions for systemic development, including holding a creative tension (Fritz, 1999) that supported novel emergence.

The third aspect of adaptive design management is that these leaders developed themselves and/or cultivated development of key stakeholders/organizations as part of the initiative. They claimed that to foster a successful change initiative, those involved may need to change. For example, they worked to strengthen their own abilities, broaden others' knowledge, or increase trust between groups. They focused on three types of self-development: intrapersonal (practices for self-understanding), interpersonal (practices for understanding others), and cognitive (practices for understanding the world). When supporting the development of others, they tended toward perspective-related practices. These included exposing people to new concepts, questioning assumptions, and inviting people to drop mental constructs. Roger's case exemplifies this. As a senior leader within a large multinational and assessed as a Strategist, he was co-responsible for development of the company's sustainability strategy. He went through extensive measures (involving almost 200 influencers, globally) to engage broad perspectives and educate decision-makers to support the sustainability strategy design. By bringing in 40 external experts, he exposed people to perspectives he claimed they never would have encountered internally.

Fifteen advanced leadership competencies

Based upon these findings, I identified 15 leadership competencies the participants exhibited (see Table III). These are most appropriate for leaders who hold an Achiever, Individualist or Strategist action logic. Their development may help facilitate growth into later action logics, thereby unlocking the capacities offered by those more complex worldviews. This is not a definitive list, but rather a first step toward a competency model for leaders with post-conventional meaning-making.

4. Conclusion and implications for theory and practice

This is the first empirical research that describes leadership at the intersection of sustainability and advanced adult development. It offers new insights into the behaviors and competencies of leaders who hold the very complex meaning-making

Principal role	Perspective on service	Principal design approach for change initiatives
<p><i>Strategists</i> <i>Catalyze.</i> Point toward a greater vision; expose people to new perspectives; push their edges; support and enable their fullest growth and greatest potential; remove problems and barriers; reframe, integrate information for others</p>	<p>As an individual, be of service to others and the world. Service is grounded largely in personal meaning</p>	<p>Operate on systems by actively influencing those with authority, power, and influence to make the perceived changes needed in the system</p>
<p><i>Alchemists</i> <i>Create supportive conditions.</i> Create space and processes for vital dialogue and development of individuals and collectives; seed new ideas and meaningful connections; address blockages in systems to improve flow; create an energetic field and the spaces for innovation to emerge and group meaning-making to develop</p>	<p>As an individual, be of service to others, the world, and the development of a greater Other (e.g. spirit, consciousness). Serve on behalf of that greater Other, acting as a vehicle or vessel for its will. Work to alleviate suffering. Service is grounded in trans-personal meaning</p>	<p>“Dialogue” with systems via experimentation and probing, while concurrently creating conditions that help systems and the individuals that constitute them to develop themselves</p>
<p><i>Ironists</i> <i>Hold and wonder.</i> Hold a unified perspective with the other as “One”; hold a partnership of beyond us and them; hold and rest in the tension of not knowing and wonder into the moment – without predefined constructs and perspectives – to allow what is needed to emerge; each time a solution arises, wonder and inquire into it; hold the space for the integrative nature of consciousness to express; hold a mirror up to individuals and groups so that they may see themselves, self-reflect, and wonder; attune to the evolving nature of consciousness and wonder “where are we?” “what are we becoming?” and “what is needed and wanted next?”</p>	<p>Serve spirit as spirit itself. Sit with all suffering that is arising from a position “outside” of the space-time continuum. Rest in it as an expression of what is arising. Take action as deemed appropriate. Service is grounded in unitive meaning</p>	<p>Anchor in “Oneness” and design as the system. That is, wonder into what the system needs and wants to become next, listen closely, and principally hold the energetic tension for that next stage of maturity to emerge. Support the individuals and the system to bring forth that new way of being, in whatever ways are needed</p>

Table II.
Differences in role, service, and design approach of sustainability leaders with late action logics

Competency	Description
<p><i>Deeply connect</i> Ground sustainability practice in deep meaning</p>	Honor the work of sustainability as a spiritual practice, as a sacred expression. See sustainability work as a vehicle for transformation of self, others, and the world. Act in service of others and on behalf of a greater other (e.g. universe; spirit; consciousness; god; collective intelligence; emptiness; nature)
Intuitive decision-making and harvesting	Use ways of knowing other than rational analysis to harvest profound insights and make rapid decisions. Be able to easily access this type of information alone or collectively, and facilitate individuals and groups to do so
Embrace uncertainty with profound trust	Willingness to not know, to wonder into the mystery of what will emerge next. Able to humbly rest in the face of the unknown, ambiguity, and unpredictable change, and not need to “push” for an immediate answer or resolution. Deeply trust oneself, co-designers, and the process to navigate through uncertainty
<p><i>Know oneself</i> Scan and engage the internal environment</p>	Able to quickly become aware of and aptly respond to psychological dynamics in oneself so that they do not inappropriately influence one’s work. Deep attunement to emotional, shadow, and personality-driven forces; able to “get out of the way” and be “energetically clean” when engaging with others
Inhabit multiple perspectives	Able to intellectually and emotionally hold many different perspectives related to an issue, without being overly attached to any of them. Able to argue the position of and communicate directly from different viewpoints. Be open, curious, and inviting of new perspectives, especially those that challenge or counter one’s own
<p><i>Adaptively manage</i> Dialogue with the system</p>	Able to repeatedly sense into what is needed to help a system develop (e.g. make it more sustainable), try different interventions (e.g. prototype; experiment; seed ideas), observe the system response, and adapt accordingly (see, Snowden and Boone, 2007). Able to look at the system, through the system, and as the system as part of the dialogue
Go with the energy	Able to identify and take advantage of openings and opportunities for system changes that are well received by members of the system, thereby building on momentum and moving around obstacles. Also, able to identify blockages or tensions (in individuals, groups, or systems) that hinder progress, and inquire into them

Table III.
Fifteen competencies of sustainability leaders with a Strategist, Alchemist or Ironist action logic

(continued)

Competency	Description
<i>Cultivate transformation</i> Self-transformation	Able to consistently develop oneself or create the environment for self-development in the intrapersonal, interpersonal, and cognitive domains, as well as other areas. Based upon deep self-knowledge, including personality dynamics and shadow issues. Able to create communities and engage mentors that consistently invite/challenge a deeper self to come forth
Create developmental conditions	Able to create the initial conditions (e.g. environment) that support and/or challenge development of individuals, groups, cultures, and systems. Able to sense what the next developmental step might be for others or a system, and create fertile ground or an intervention that increases the likelihood of development or the emergence of novelty. Requires a general understanding of how individuals, groups, and systems develop
Hold space	Able to effectively create the appropriate (e.g. safe; challenging) space to help a group progress (e.g. work through an inquiry; build trust; self-reflect), holding the tension of the important questions. Able to hold the creative tension or energetic potential of what is needed in the space, and/or what is needed for development of the individuals and collectives involved, thereby creating the environment for the emergence of answers/outcomes and developmental movement (see, Fritz, 1999)
Shadow mentoring	Able to support others to see and appropriately respond to their psychological shadow issues and their “programming” (e.g. assumptions; limiting beliefs; projections; stories). This is not psychotherapy work, but the use of basic “maintenance” tools like the 3-2-1 process (Wilber <i>et al.</i> , 2008) to address shadow issues
<i>Navigate with sophisticated theories, frameworks</i> Systems theory and systems thinking	Understand the fundamental concepts and language of systems theory. Be able to apply systems thinking to better understand sustainability issues and support the development of systems (see, Bertalanffy, 1968, Laszlo, 1972)
Complexity theory and complexity thinking	Understand the fundamental concepts and language of complexity theory, especially as it relates to leadership. Be able to apply complexity thinking to better understand critical issues and support the development of complex adaptive systems (see, Kauffman, 1995, Marion and Uhl-Bien, 2001, Stacey, 1996, Uhl-Bien and Marion, 2008)

(continued)

Table III.

Competency	Description
Integral theory and integral reflection	Understand the fundamental concepts and language of integral theory. Be able to use integral theory to: assess or diagnose an issue and design an intervention; tailor communications to different worldviews; support the development of oneself, others, groups, cultures, and systems. (see, Beck and Cowan, 1996, Edwards, 2009, Torbert, 2000, Torbert <i>et al.</i> , 2004, Wilber, 1995, 2000)
Polarity management	Understand the fundamental concepts and language of polarity management. Be able to recognize and effectively engage important polarities such as: subjective-objective; individual-collective; rational-intuitive; masculine-feminine; structured-dynamic; challenge-support; and big picture-details (see, Johnson, 1992, Johnson, 1993)

Table III.

systems. This exploratory data can be used to help guide the development of leaders into post-conventional meaning-making which may, in turn, aid them to more effectively address global challenges.

Although exploratory, these findings have significant implications for leadership theory in general and sustainability leadership theory in particular. With few exceptions, leadership researchers regularly build frameworks and competency models, and study exemplars, without accounting for the vast differences in meaning-making amongst their sample and target populations. However, the development of a leader's meaning-making system is a key determinant of leadership effectiveness. This primary and secondary research has demonstrated important variances in how leaders with different meaning-making systems engage in complex change. These findings call into question the credibility of leadership theory that has not incorporated a constructive-developmental perspective. More importantly, they highlight the opportunity to strengthen the efficacy of future leadership research. Findings from constructive-developmentalism should therefore be incorporated into leadership studies and leader development practice.

If society is to achieve the difficult and complex objectives of global sustainability, we will likely need myriad leaders with advanced meaning-making capacities. Numerous resources explore how to cultivate these capacities; interested parties are encouraged to review them (see, Chandler, 1990; Eigel, 1998; Gauthier and Fowler, 2008; Harris and Kuhnert, 2008; Kegan and Lahey, 2001, 2009; Pfaffenberger, 2005, 2006; Reams, 2002; Rooke and Torbert, 1998; Scott, 2009; Wagner and Kegan, 2006; Wilber *et al.*, 2008).

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