How to Face Complexity: Perspectives from Adult Development and Evolution of Worldviews

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In a design workshop last fall, a fellow participant sitting across from me asked in an exasperated voice, "Why doesn't everyone out there think in big pictures?" His tone suggested that he meant it less as a question and more as a condemnation: "Why don't people consider systemic and long-term impacts?" It is a good question, when asked sincerely. Because it is not hard to imagine that if more people thought in larger perspectives, then the world would be in a better place than where it is today.

The first part of this paper is my attempt to answer that question. And it reaches for insights from the perspective of adult developmental psychology, which studies the maturation and growth of adults across many dimensions, one of which is our ability to take on larger and more complex perspectives. I invite you to examine with me the current theories and models around adult development, why it matters to someone's capacity for perspective-taking and how it is different from what we normally consider as learning and training. My hope is for you to come away with new possibilities for growth, with sympathy for the limitations in you and the people around you, and with inspirations for designing environments that support people's growth.

The second part of this paper is about human belonging, and the more complex forms of it that are required in a post-modern world. I am confronted by this complexity in myself, a mix of East and West, being born in China then settled while I was young in Canada, and having lived in a spattering of other countries (Scotland, Norway, Singapore, and Taiwan) at various times — where I belong has been a central and yet difficult question. Not only that, the diverse stretch of cultural and geographical experiences is compounded by the many sub-cultures I have been part of (e.g. spirituality, therapy, activism, entrepreneurialism). After coming back to Toronto and while spending time in close quarters with my parents during the covid lockdown, I came to see how distanced I am from the traditional world where they came from, this small remote town in China where their families knew each other before

they were born. My parents know their roots. I, on the other hand, belong everywhere yet also nowhere, uprooted and blown adrift by the global post-modern life.

My experience is unique in its particularity, but I don't think I am alone. The diversity of the modern culture is conjoined with isolation, fragmentation, and polarization. The strong boundaries that marked traditional communities of belonging have been blurred, erased, and replaced by individualistic self-actualization on one end and tribal preservation on the other. The effort to integrate our diverse selves into a shared common is ever more complex.

So, while the first part of the paper examines development from the individual perspective, the second part examines development from the relational or collective perspective. The question being explored is: what are the forms of human consciousness that can hold the relational complexity of our post-modern society? Our capacity to meet the complex challenges of our times might depend on it.

The Need for Mental Complexity in a VUCA World

The volatility, uncertainty, complexity, and ambiguity (VUCA) of our systemic challenges impose new demands on the complexity of our minds. As Einstein is known to have said: "we cannot solve our problems at the same level of thinking that we created them."

Developmental psychology studies the progression of complexity within human minds. It is not widely known and applied in the social sciences (Kjellström & Stålne, 2017), but it has the potential to be applied across discipline and contribute to how we design for changes in complex social systems (Fein & Jordan, 2016).

Designs for system changes could benefit from recognizing that people have perspectives from different levels of complexity. People's actions and language are governed by the level of complexity at which they mentally construct the world. It is important to note that the different levels are not markers for a person's value and worth, because each perspective is valid (and partial). However, some perspectives are more effective at meeting complexity. Conflicts and misunderstandings happen when

those different levels of thinking are unrecognized. A design that recognizes the different levels could

clarify communications, affirm the validity of each perspective, while support the group to develop

towards more capacity for complexity.

So, what are these different levels of mental complexity? First, we will ground ourselves with

the more intuitive theories of child development before we move into adult development. Later I will

also present the empirical evidence that support adult developmental theories.

The Adult Mind Has the Same Capacity for Growth as A Child's Mind

It is generally understood that children's mental structures grow in complexity as they age — for

example, a 15-year-old can grasp abstract concepts the way a 5-year-old cannot. However, society

commonly assumes that as people enter adulthood, their minds, like their bodies, come to full maturity.

It is assumed that adults' minds can continue to grow *quantitatively* — more experiences, more skills,

and more knowledge, but their mental structures are not expected to grow in *qualitatively* different

ways that a child's mind would, for example, from 5 to 15 years old.

Decades of academic research in adult developmental psychology showed that assumption to

be false (Kegan, 2011). Adults' minds do grow qualitatively towards more complexity, albeit slower and

less obvious in comparison to child development (Kegan, 1994).

It helps to first look at this qualitative growth in the development of children. Here, I turn to

Jean Piaget.

Piaget's Child Development Theory

Jean Piaget's theory on the different stages of child cognitive development laid the foundation

for later adult development theories. Prior to him, the field of psychology assumed that children's minds

are the same as adult's but are simply less competent (McLeod, 2018). Piaget demonstrated that

children's minds construct the world around them in completely different ways at different ages.

One example: a new baby cannot distinguish between the external world and her senses. If a toy is hidden from her view, she stops looking for it; in her mind, it no longer exists. The objective world and her subjective senses are fused. This is why peek-a-boo is so much fun with a baby. Then as her age gets to around 8 months, when a toy is hidden, she knows it is still there. Her mind can now form a representation of an objective world independent of her senses — a concept called "object permanence".

Another example from one of Piaget's experiments: children are shown two identical glasses with equal amount of water. When asked which glass has more water or if they are the same, the children easily answered the same. Then the water in one glass is poured into a skinnier but taller glass. Now when asked which glass has more water, the children pointed to the taller glass because it "looked" taller. Their minds make no distinction between the amount of water and how it "looks" to them from their perspective. The external object — water — has no distinct identity apart from their subjective view of it. So, in their minds, when the object's appearance changes, the quantity also changes. Only as children get to around 6 years old do they have the mental ability to *conserve* the quantity of something as its appearance changes.

From these experiments, Piaget identified 4 stages of cognitive development in children (McLeod, 2018):

- Sensorimotor (0 - 2 years): develops the ability to form mental representation of an object, achieving "object permanence"

- Preoperational (2 - 7 years): develops the ability to think symbolically, but it is pre-operational because they cannot use logic. Their thinking is egocentric and cannot yet take on another person's view.

- Concrete Operational (7 - 11): develops the ability for logic (e.g. the conservation of water in the experiment mentioned above) but only when applied to physical objects.

- Formal Operational (11 and over): develops the ability to think about abstract concepts and test hypothesis. The development of this stage begins at around 12 and lasts till adulthood. Though not every adult develops it fully.

Piaget's major contribution is that cognitive development is not just the learning of more information and complex behaviors; it involves the restructuring of their mental models through a progression of stages that are qualitatively, not just quantitatively, different. The progression of these different mental constructs is universal, meaning they seem to be independent of culture and social environments.

The Piagetian experiments like the one with the glasses of water are easy to replicate, and you can find videos of them on YouTube. Though I would warn: they are very cute! And here is the thing, it is cute to see children constructing the world in simpler ways; after all, as adults, we know what is real, but the children are still growing out of their make-believe worlds. But who is to say that our perceptions of reality are not also limited by our subjectivity in the same way that children are, but just at a different level? For this, we turn to the theories of adult development.

Overview of Adult Development Theories

Following Piaget were many other researchers who looked at the stages of development: Graves, Loevinger, Kohlberg, Gilligan, Kegan, Cook-Greuter, etc. Ken Wilber's Integral Psychology (2000) is a good source to see how the various models line up and compare. All of them empirically demonstrated the existence of different developmental stages along various dimensions: cognitive, ego-identity, emotional, moral, and cultural. All of them describe "the unfolding of human potential towards deeper understanding, wisdom and effectiveness in the world." (Cook-Greuter, 2004).

The different development models generally share the following characteristics (Cook-Greuter, 2004):

- "Growth occurs in a logical sequence of stage or expanding worldviews from birth to adulthood"

- "Each later stage in the sequence is more differentiated, integrated, flexible and capable of functioning optimally in a rapidly changing and complexifying world."

- "As development unfolds, autonomy, freedom, tolerance for difference and ambiguity, as well as flexibility, reflection and skill in interacting with the environment increase, while defenses decrease."

- "Each later stage includes and transcends the previous ones" — meaning the perspectives and capabilities of earlier stages are retained in the later stages. The later stages can understand the perspective of the earlier stage, but not vice versa.

- "People's stage of development influences what they notice and can become aware of, and therefore, what they can describe, articulate, cultivate, influence, and change"

- "Development occurs through the interplay between person and environment"

- No matter what stage we are at, our perspective is always partial and incomplete — signifying that there is no end to the development process.

Kegan's Subject-Object Theory of Adult Development

I will not go into the details of the different adult development models; there are better introductory sources for that (Cook-Greuter, 2004; Wilber, 2000). Instead, my aim is to highlight the value of developmental perspective when we design for system changes. I will specifically walk through the adult developmental theories of Robert Kegan, because I find his theory to have deeper explanatory power than the others I have read. While other researchers have good descriptions for the different stages and how they appear from the outside, Kegan went deeper with a theory to explain the internal architecture of the stages and the internal shift when one transitions to another.

Kegan (1982)'s adult development theories were built on top of the Piagetian theories. Like Piaget's theories, his theories are considered the constructive-development approach, which combines two ideas: constructivism and developmentalism. Constructivism is the idea that our experience of reality is not given from the outside, but constructed by our minds, and that to really understand someone, we need to understand their constructs. Developmentalism is the idea that any evolutionary process goes through a series of discrete stages. The constructive-developmental approach studies the development of people's meaning-making or mental constructs across different stages. Kegan's work is considered significant because he proposed a theory to explain the internal shifts happening in the transition between the stages. By doing so, he provided a theory that can explain both Piaget's work on cognitive development and Kohlberg's work on moral development. Underneath both is ego development that goes through the motion of increasing differentiation and re-integration between what the ego identifies as subject and what the ego is aware of as objects. So his theory is also called the Subject-Object theory of development. At each successive stage of development, a person's ego differentiates from what he was previously embedded in or "subjected to" —e.g. senses, perceptions, assumptions, socio-cultural identities — to hold the previous "subject" as a new "object" in his awareness. Disidentified and differentiated from his previous subjective lens, he can see more clearly the complexities of the world.

Kegan's theory identifies 5 stages of development from birth to adulthood, where the later 3 are stages that typical adults go through.

- 0) Incorporative: undifferentiated consciousness of a baby

- 1) Impulsive: can differentiate self and others, but limited within one's own perspective

- 2) Imperial: can recognize another's perspective, but embedded within one's ego-centric needs and desires

- 3) Interpersonal (or Socialized Mind): can take on 3rd person perspective. One's identity is embedded within the mutuality of a relationship. This is the stage when adolescents begun to be recognized as being "responsible" and "mature".

- 4) Institutional (or Self-Authoring Mind): being able to create and define one's own values. Not just limited by the relationships and social context that one grew up in but able to coordinate them in a larger system of meaning. This is the stage that modern society expects adults to operate in. So most adults are on the developmental transition between 3rd and 4th stage. The limitation of this stage, however, is that it is overly identified with its own system of values and preferences.

- 5) Interindividual (or Self-Transforming Mind): can now step back from their self-authored identity and see it as part of larger process or system. Their awareness becomes meta-systematic, being able to embrace polarities and differences. Their identity becomes fluid rather than fixed.

Below you can find examples of what relationships, conflicts, workplace participation, cognitive capacity, and institutions look like from each stage.

Relationships at each of stage:

- Socialized Mind: Closeness is defined by the mutual sharing of values and viewpoints, by how similar they are. Differences threaten the closeness. Tend to bond with people who share the same ideals and values.

- Self-Authoring Mind: Closeness is defined by capacity to recognize and respect individual differences.

- Self-Transforming Mind: The boundary between individual boundaries become more fluid and real intimacy become possible.

Conflict resolution at each stage

- Socialized Mind: cannot recognize conflicts. Tries to make conflict go away, because they threaten the relationship, and because their identify is fused with the relationship, conflict literally threaten their self-identity.

- Self-Authoring Mind: Can respect that people can recognize and tolerate conflicts. But cannot resolve them fully, because they are rigid in their own sense of self. Instead, they will negotiate to respect each other's boundaries and to get each other's needs met.

- Self-Transforming Mind: able to embrace conflicts as a catalyst for transformation.

Cognitive Complexity at each stage

- Socialized mind: maps to early formal operational thinking in Piaget's stages. Capable of abstract thinking. But not capable of thinking in systems. As an academic student, he can apply the insights within a discipline, but not able to derive those insights himself.

- Self-Authoring Mind: maps to late formal operational thinking in Piaget's stages. Capable of mapping out systems. As an academic student, he would be able to map out a field of knowledge in an academic discipline; he knows the underlying principles that generated the insights within the discipline.

- Self-Transforming Mind: capable of post-formal operational thinking, which is described by Basseches (2005) as dialectic thinking. Can see the underneath process that generates and transforms systems. As an academic, he can provide critique to a system of thought.

Workplace participation at each stage

- Socialized Mind: being a loyal employee. Can succeed within the expectations of a role in the organization.

- Self-Authoring Mind: Can navigate different relationships and work across teams in alignment with the organizational goal. Seeks mastery and excellence in individual performance.

- Self-Transforming Mind: See their job and the organization to be part of a larger work

View of systems and institutions at each stage:

- Socialized Mind: capable of being a responsible and loyal member of a system, but not able to create his own system

- Self-Authoring Mind: capable of creating his own system. Can be leaders of organizations. But tend to be rigid in defending and maintaining the system or organization that he created. An organization created from this mindset tend to maintain itself for its own sake, rather than for a larger purpose.

- Self-Transforming Mind: being able to make contributions to ecosystems and larger society. Can create systems that are self-organizing.

The summary of these views from the different stages are perhaps simplistic. But they demonstrate that as a person develops, their perspective expands, and they see the wider system around them.

Torbert's Leadership Development Framework

A tour through William Torbert's Leadership Development Framework would also demonstrate how a person's perspective changes through development. Torbert interviewed thousands of executives and identified 7 stages or "action logics" as he called them (Torbert, 2005).

1. **Opportunist**: focused on personal wins. See others as means to an end. Good in emergencies and sales opportunities.

2. **Diplomat**: loyal and pleasing. Avoids conflicts. Good as a team player.

3. **Expert**: Exceeds at building expertise. Rational and efficient. Good as an individual contributor.

4. **Achiever**: Effective in managerial roles at meeting strategic goals. Can balance short-term with long-term goals. Better relationship skills.

5. **Individualist**: Recognizes different perspectives. Can reflect on organization goals. Might not play within the rules. Effective in venture and consulting roles.

6. **Strategist**: Effective at generating organizational and personal transformations. Deals well with conflicts and people's resistance to change.

7. **Alchemist**: Good at leading society-wide transformations. Can work with multiple issues at multiple levels.

According to Torbert's research, these internal "action logics" are more predictive of work performance than a person's personality styles.

Empirical Evidence for Adult Development Stages

There is extensive amount of research data that validates the various adult development theories (Wilber, 2000). The two most sophisticated, reliable, and widely used measures for assessing mental complexity are the Washington University Sentence Completion Test (SCT) developed by Loevinger and Wessler and the Subject-Object Interview (SOI) developed by Lahey and Kegan (Kegan, 2009). They have been used in thousands of research projects worldwide (Cook-Greuter, 2004). These assessments measure orders of mental complexity with high degrees of *interrater reliability*, which means different (trained) assessors would arrive consistently at the same result. And they are different from IQ testing, which is only moderately correlated with mental complexity (Kegan & Lahey, 2009).

According to Kegan (1992), Lahey found that a person's level of developmental complexity is consistent across different areas of their life, whether it be work, family, or love relationships. So the internal complexity that is measured is not about any skillset or knowledge domain but rather the underlying organizing principle for how a person operates.

While the above assessments validate the existence of different orders of internal complexity, there are also longitudinal studies that demonstrate that these orders are lined up in a developmental progression. Kegan and Lahey (1992) conducted a 9-year study that followed 22 adults. The data

showed a gradual increase of developmental complexity. From year to year, the direction of a person's assessment was always towards increasing complexity. It showed that a person cannot skip orders, for example, leaping from 3rd order to 5th order. The development does not just happen by picking up skills or knowledge from a higher order. Rather, it happens through a gradual unfolding of more complex ways of constructing reality.

These research studies, along with the studies from other theorists, like Graves, Piaget, and Maslow, have corroborated the existence of developmental progressions across cultures and countries with different economic wealth (Wilber, 2000).

Cautions and Considerations on Usage of Adult Development Theories

Kjellström and Stålne (2017), in their review of the literature, adds the following caveats to adult development theories:

- People at later stages have more complex awareness, but not necessarily happier or more adjusted. Life challenges can throw off anyone at any stage.

- People should be respected for whatever stage they are at, and that whatever stage they are at is appropriate.

- Do not define any particular person purely by their stage descriptions. No person can be completely described or defined by the stage models, which are just idealizations.

Cook-Greuter (2020) in a webinar also advised against people who focus too much towards higher stages of development. She said people's value and contributions cannot be measured by their stage. Basic human decency and kindness can be found at any level.

Another criticism is one I know by experience. Because the development theories can be understood and used different ways people at different stages, it can be co-opted by our individualistic culture for agendas towards individual achievements and perfection. I have noticed that in myself and others in various personal development and spiritual communities, especially those affiliated with Ken

Wilber's integral theories, where people use development levels to compare themselves with others. But as Kegan said in a video interview (Fuller [Rebel Wisdom], 2019), the intention of the theory is not for ego comparisons, but to recognize the flourishing of human possibilities.

The Socio-Cultural View of Development from Vygotsky and Bronfenbrenner

This paper primarily looks at adult development from the lens of staged constructive-developmental theories that stemmed from the work by Jean Piaget. A brief comparison will also be made with other influential developmental theories which are focused more on the social contexts for development.

Lev Vygotsky, a contemporary of Piaget, was another influential early figure in child development theories. Unlike Piaget, Vygotsky placed a higher emphasis on the social factors that facilitated the development (McLeod, 2018). He viewed learning guided by adults or peers who are considered the More Knowledgeable Other (MKO) in the Zone of Proximal Development to be the most effective for learning (McLeod, 2018). For him, development comes from social interactions and internalization of the environmental culture and language (McLeod, 2018). This differs from Piaget's view, who saw development to be a self-initiated process that is catalyzed by the assimilation of unfamiliar experiences (McLeod, 2018).

Urie Bronfenbrenner was another developmental theorist from Russia who highly emphasized the social context for development. His ecological systems theory, which later evolved into the bioecological model, looks at development within several levels of context: micro, meso, exo, macro, and chrono. His model provides the broad systemic view of what influences development.

The social-cultural approaches of development and the constructive-developmental theories are complementary. The constructive-developmental theories study the increasing levels of inner complexity in an individual; the social-cultural approaches focus on the role that the environment plays in facilitating development. One does not preclude the other. To meet the increasing challenge of

external complexity, development of inner complexity is needed. This can be supported by building the right social environments that facilitate optimal development.

Meaning-Making of Transformational Leaders

Development models from Torbert and Kegan have been used by other researchers to both understand the meaning-making of leaders who are leading complex change, and how to facilitate more transformative leaders. What they all demonstrate is that leaders who are rated to be on a later developmental stage are more effective at dealing with complexity.

In one example, Kathleen Roberts, in her doctoral dissertation, evaluated the meaning-making of social entrepreneurs. All the social entrepreneurs in her study rated as Achievers and higher in Torbert's stages, suggesting the minimum stage of development that is required to tackle more complex social issues. In another example, Barrett Brown (2012) studied how leaders with post-conventional consciousness engage in complex changes like sustainability initiatives. She found post-conventional leaders come from deeper inner foundation, are more adaptive, and are informed by sophisticated frameworks (systems theory, complexity theory, integral theory).

These studies show that what distinguishes effective transformational leaders are not their knowledge or expertise, but their internal "operating system", "action-logic", or meaning-making. They are more able to hold larger perspectives and longer timespans, balance rationality with intuition, and navigate uncertainty and conflicts.

How to Support Adult Development

There are no clear and straightforward answers from any of the authors on how to develop. There are no blueprints. The general consensus is that it is difficult and takes time. A person cannot just develop by accumulating more knowledge and skills (Cook-Greuter, 2004). It is an inner transformation of the one's meaning-making, so the process is unique to each individual, and it requires deep reflection

and dialogue with others. From the socio-cultural perspective, a person cannot develop by himself; he needs to interact with his environment, with his peers, and others who know more.

Kegan (1982) brought up the concept of the Holding Environment, originally proposed by Donald Winnicott. Kegan identified 3 functions of a holding environment needed to effectively support development:

1. Confirmation (holding on): providing support, holding (e.g. literally for a baby)

2. Contradiction (letting go): allowing the individual to separate, differentiate. This may be the hardest for the person providing the holding because it can feel like being rejected.

3. Continuity (staying for re-integration): to be there for re-integration when a differentiated individual returns.

Kegan (1982) describes human development as a dialectical process trying to resolve the tension between the 2 primary human yearnings: autonomy and inclusion. This mirrors the process of differentiation and integration in biological evolution theories. Each stage in the development is a temporary resolution of these primary yearnings. The developmental process alternates between being more autonomy-oriented and being more inclusion-oriented. The 3 functions of the holding environment support people to reach higher and more advanced differentiation and integration, coming into a richer and richer interplay between the self and the environment.

Discussion and Insights

Coming back to the original question: "Why don't people see larger perspectives?" The insight from developmental theories is that the "altitude" of people's perspectives is determined by their developmental stage. A baby's world consists of her relationship to her caretaker; a 5-year old's world expands to his belonging within the larger family; a school-aged kid must navigate the relational dynamics with his peers and expectations from teachers; a young adult learns on take on responsibilities within an organization. A similar process can be traced with adults. As adults develop, their view of the

system around them enlarges, their awareness expands, what he is in relation with become more diverse. Cook-Greuter (2004) likened the development process to climbing a mountain — as a person climbs, he sees from higher and higher vantage points. However, one cannot skip any part of the process; the climb must proceed one step at a time.

Looking at the complex issues facing us from the developmental lens, two further questions can be raised: 1) how do we develop more leaders and change agents with the mental "altitude" to effectively navigate complexity, and 2) how do we apply developmental understanding when designing system changes?

On the first question, what is known is that adult development is a potential, but it is not guaranteed (Kjellström & Stålne, 2017). Adults need support, just like children do, for further development. But society in general lack that kind of support. This is evident even in higher education, where we expect adults to grow. To what degree do our higher education institutions provide knowledge and skills training, and to what degree do they shape the inner development of our students? A mix of both, presumably. A more explicit development approach, however, has the potential to better prepare our emerging leaders and change agents to tackle complex societal issues.

The second question is more difficult. The literature around adult development are mostly focused on leadership development, some on organization development, but very little on large scale changes. The work of Don Beck, the author of Spiral Dynamics (1996), in contributing to the peace-making in South Africa, may be one rare example. More research is needed to explore the potential here. On paper, adult development holds some promise for how we design system changes, especially when we take the social constructionist view that the systems and institutions we create come from our inner constructions of reality. To shift our systems and institutions, we need to shift our inner constructions. Fein and Jordan (2016), surveying the applications of adult development to social science, surmises that "the levels of cognitive complexity within a population are a crucial factor for explaining

the evolution of social forms and institutions in the respective societies." Kegan (1982) also puts forward the idea that to be a human being is to be a meaning-making activity, and that the complexity of our meaning-making undergirds how we construct everything in our world, from our private ego identity to the public systems of our society. Understanding the different ways that people construct the world could be important when we design for systems with diverse perspectives. Adult development theories can be used to complement other frameworks that help to understand people's differences. The developmental lens does not make any perspective wrong; it affirms every perspective as a necessary step in a sequence of ever more holistic perspectives. Rather than seeing a system as something broken that needs to be fixed from the outside, the developmental view would affirm its growth potential and support the system in moving towards a greater wholeness that is already seeded within it.

Overall, adult development theories have been about the transformations of individuals. However, the transformations of many individuals do not necessarily add up to the transformations of the collective. Something else needs to be looked at. So, the next part of this paper explores the changing meaning of belonging in today's world, and what does it take to come together for collective transformations.

A Wider Sense of Belonging in a Post-Modern World

The modern and post-modern world challenges the traditional sense of community and belonging and therefore weakens a society's ability to tackle complex issues as a collective. In this part of the paper, I explore the historical roots of modernity and postmodern worldviews in search for a wider sense of unity and belonging.

The Effects of Modern Isolation

Robert Putnam (2000), in his book *Bowling Alone*, analyzed the loss of community connections in America through the theory of "social capital", which he defined as "connections among individuals— social networks and the norms of reciprocity and trustworthiness that arise from them" (p. 19)— in

other words, how connected and how much trust do we feel with our neighbours. The amount of social

capital determined the well-being of a community. His research showed a decline in social capital in

America since the 1970s, with measurable decreases in group membership, civic engagement, and

political participation. He attributed it to increased pressures of time and money, increased distances

across urban sprawl, overexposure to television, and generational divides.

Daloz et al. (1997), in the book *Common Fire: Leading Lives of Commitment in a Complex World*,

also described the erosion of the traditional sense of the "commons", defined as a shared space where

people can engage and participate as a community, and where they can hold conversations about issues

that matter to the common good. These traditional gatherings in public and religious spaces have been

replaced by private gatherings in restaurants and trips to malls; and distanced engagements with TV and

on the internet. The new "commons" is less local and gathered; it is more global, diverse, ambiguous,

and complex. "We are simultaneously fragmented into loose and shifting associations of individuals,

interest groups, and tribes, yet drawn more closely into a larger web of life" (p. 3). This new complexity

can be daunting for those wanting to practice the kind of citizenship that works towards the common

good.

Daloz et al. (1997) also described the modern effects of individualism: busyness and

consumerism, cynicism, and tribalism. People are pressured to work longer and harder to buy things

they do not need, taking away time for meaningful communal participations. In addition, when faced

with a complex world beyond their control, people retreat into cynicism and tribalism, doing what is

right and what is good only for themselves and those closest to them, while presuming everyone else to

be out there for themselves. The new social fabric is increasingly interdependent, but the individual

participation is becoming increasingly isolated. The authors saw individualism not necessarily as the

problem but as an ideology that became overly pervasive and reached its limit. They recognized the

modern development of individual rights as one of the great achievements of civilization. But the

society's enormous reliance on individualism is leading to what Garrett Hardin termed "The Tragedy of the Commons".

The works by Putnam and Daloz et al. point to the pervasiveness of individualism on one end and the stretched diversity of the new social fabric on the other. The modern individualism and the postmodern pluralism are both posing challenges to what it means to belong and partake in the common good. In search of a new starting point for the shared sense of belonging, I turn towards the history of worldviews that are at the roots of modern and postmodern society.

Historical Roots of Modernity and Postmodernity

According to Ken Wilber (2001) in *A Brief History of Everything*, the transition from pre-modern to the modern paradigm is marked by the differentiation between science, religion, and art — the True, Good, and Beautiful. For the first time in human history, these different realms are allowed to develop separately and unhampered by any other. However, the rapid development of science led to its domination over all the other realms, reducing the view of reality to only what can be deduced by science. Post-modernity is an attempt to re-integrate these separated realms, but it has for the most part been mired in relativism.

Richard Tarnas (1993), in *The Passion of the Western Mind*, also speaks to this differentiation and separation that undergirds the modern worldview. According to him, the modern worldview begun with the Copernicus revolution and matured with the Cartesian-Newtonian paradigm. The Copernicus revolution moved the centre of universe away from humans on Earth. This move casted the Western sense of self out of its primordial, intimate unity with nature, into a differentiated and separate subjectivity, a position where it can analyze the world more objectively[1]. It led to modern scientific progress but also an existential angst of being alienated from a universe that was viewed as devoid of

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[1] A subject-object move in consciousness that is not so different from Kegan's subject-object theory of adult development

meaning. Postmodernism emerged from Hume and Kant's critique on modern epistemology and its confident possession of absolute knowledge. Postmodernism opened all knowledge up to interpretation and showed that no knowledge is independent of subjective interpretation. All are context dependent. Any knowing can never be fully "objective", as the "subject" can never be removed. Postmodernism opened up the diversity of views, but in declaring that nothing is absolute or superior, it carried a hidden absolutism that everything is relative.

Jeremy Lent (2017), in *The Patterning Instinct: A Cultural History of Humanity's Search for Meaning*, traced the origin of Modernist view to the Western dualistic mindset that had its seed in the Platonian ideals from ancient Greece and came into full bloom during the Enlightenment and Scientific Revolution. The dualistic mindset created separation between body and mind, between human and nature, and led to the ideology that human is destined to transcend and conquer nature. This dualistic mindset allowed the Western worldview to dominate over the other worldviews and spread throughout most of the world.

What the authors seem to agree on is that the modern worldview is rooted in the paradigm of separation and differentiation, driven by a "heroic impulse" (Tarnas, 1993) to transcend nature. It gave rise to individual selves that are autonomous and rational[2], and it led to democratic societies that respect individual rights. It is a significant achievement. But the separation of our identification with nature also led to the exploitation of nature, which is reaching its limit to sustain all life. One thing to consider is that differentiation is only one side of evolutionary development; integration is the other.[3] The global challenge is calling for integrations and re-connections in a myriad of forms. However, it is not calling for a retreat to the traditional (pre-modern) unity with conformity and obedience, but at a

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[2] Which corresponds to Kegan's 4th order of consciousness
[3] This dialectical process of differentiation/integration, or autonomy/inclusion seem to exist both in the evolution of worldviews and Kegan's adult development theory

higher order of integration that retains the achievement of individual autonomy. The postmodern worldview is one attempt at this integration. In deconstructing the dominant views like those from the colonial legacy, it expands our empathy to all cultures and all human experiences in the world. But in diversifying and relativizing all knowing, it also contributed to further fragmentation rather than a constructive higher order of unity. This is a complex challenge for those seeking belonging and community in today's world. Pockets of belonging and thin threads of mutual respect exist within an individualistic yet pluralistic society, but there lacks a deeper unity that gathers people to a shared belonging where they feel "even in the middle of the night, that I am among friends" (Block, 2018, p. xii).

Ideas for New Possibilities

It is not within the scope of this report to present answers and solutions, as if there can be any easy ones. However, I would like to peruse a few ideas that caught my interest.

The Paradigm of an Action Matters

One idea that I picked up is that no matter what actions we take as change agents, it is important to know what worldview and paradigm we are taking the actions from, because that will determine the future we manifest. If we take actions from the same paradigm that originated a problem, then we will repeat the problem just in a different form; it will be akin to reshuffling the chairs on the deck of Titanic. Donella Meadow (1999), the famed systems theorist, listed paradigm change as the second highest point of leverage in any system intervention[4].

What matters is not the scale or quantity of a desired change, but the depth and quality of the change in relation to a new paradigm. Charles Eisenstein, a counter-cultural activist, in his books *The More Beautiful World Our Hearts Know Is Possible* and *The Climate Story* argued that the obsession with

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[4] The highest point of leverage in her list is going into the "not knowing" that is beyond the certainty of any paradigm or worldview

scale and quantity as the only ways to measure the efficacy of an action for change is actually a mindset from the same paradigm of separation that originated our environmental crisis.

Those who wants to lead change need to ask what worldview underlies the future they desire and act from that worldview now. Peter Block (2018) wrote something akin to this in the book *Community: The Structure of Belonging*, "Every gathering, in its composition and in its structure, has to be an example of the future we want to create. If this is achieved in this gathering, then that future has occurred today and there is nothing to wait for." (p. 75).

Gergen's Relational Being

Kenneth J. Gergen (1999, 2009), a researcher within social constructionism, puts forward the idea of *Relational Being* to replace the modern social construct of separate individuals. Echoing the authors who wrote about the origin of the modern worldview, Gergen noted that the idea of human nature being individual and separate only started about 400 years ago during the Enlightenment period, which recognized in each person the capacity for reason. It led to institutions of democracy and public education. However, as anthropologist Clifford Geertz noted, "The Western conception of the person as a bounded, unique [individual] … [is] a rather peculiar idea within the context of the world's cultures" (Gergen, 2015, p. 91). This construct of a person as an individual, whole and complete within itself, pervades through our social order and use of language. He invited us into imagining a different construct, where what is considered primary in reality is not the individual but the relationship. The typical cultural view sees a relationship as an abstraction that is formed when individuals come together. The relational construct flips that around: the relationship is the primary reality from which individuals get their identities. The relationship exists prior to what can be defined as individuals. Taking on this new construct generates new possibilities for our society and organizations.

Gergen's concept for Relational Being typified the post-modern view of a human being — multi-dimensional and context dependent — and it may be the kind of paradigm that is needed to hold the

relational complexity of the world. However, he does not seem to take the developmental view that the autonomous individual is a stage that needs to be included in the pivot towards a higher consciousness that is relational-oriented. Those who are enamored by his idea but applying it in a simplistic way may risk suppressing individuality for the sake of relationships and communities. That would be conflating a lower order of relationality with a higher one. Kegan (1992) made a similar critique of social constructionists who are enthusiastic about spreading post-modern ideas — most of the adult population still have not mastered the self-authoring order of consciousness that is expected by modern society; nudging them to an even higher order of consciousness (self-transforming) for the post-modern worldview may hinder rather than support their development.

Feminist Contributions to Development Views

The feminist contributions to development theories are some of the most exciting in the field, orienting both development theories and worldviews towards those of integration, connection, and community. Development theory, in its bone, is masculine in nature. It embodies the idea of the heroic impulse to be more and more of oneself. And within the modern context, it is oriented towards individuation and differentiation. The feminist contribution balanced the development back towards integration. Carol Gilligan (1985), in *In A Different Voice*, first critiqued the masculine bias of Kohlberg's moral development theory and offered the feminine view of moral development, which is more oriented towards *care* rather than abstract principles of justice. Other researchers also pointed out that women's development often differ from men's. Men tend to become more independent and separate from their starting social environment; women, on the other hand, tend to stay close to the family and their community even as they develop. Sharon Daloz Parks (1989) noted that the twin metaphors of Home and Pilgrimage have historically been used together to describe the two equal and interdependent aspects of human development, but the western view since the Enlightenment has skewed towards the pilgrimage and the outward journey at the cost of the homemaking.

Richard Tarnas (1993) also affirmed the need for the feminine balance in writing that "the crisis of modern man is an essentially masculine crisis" (p. 441). He went on to summarize the whole underlying goal behind the evolution of western worldview:

For *the deepest passion of the Western mind has been to reunite with the ground of its own being*. The driving impulse of the West's masculine consciousness has been its dialectical quest not only to realize itself, to forge its own autonomy, but also, finally, to come to terms with the great feminine principle in life, and thus to recover its connection with the whole: to differentiate itself from but then rediscover and reunite with the feminine, with the mystery of life, of nature, of soul. And that reunion can now occur on a new and profoundly different level from that of the primordial unconscious unity .... in the embrace of a larger unity that preserves human autonomy while also transcending human alienation (p. 442-443)

Post-Conventional Consciousness

The post-conventional stages in adult development theories have the potential to hold the relational complexity of today's world. The post-conventional stages in the various models — Kegan's Self-Transforming mind; Torbert's Strategist, Alchemist, Ironist; Basseche's Dialectical Thinking; Spiral Dynamics' Second Tier — all transcend the limitation of the autonomous self and participate at a larger field of relationality. The pre-conventional mind can form dependent relationships; the modern conventional mind can form independent relationships; the post-conventional mind can form relationships that are interdependent. The pre-conventional mind can be a loyal member of a community; the conventional mind can create rules and boundaries for their community; the post-conventional can create communities that are self-organizing and self-transforming.

While research exists on post-conventional stages of leadership development, not much literature exists around how to develop post-conventional stages of relational fields, i.e. communities and organizations. The Bohmian Dialogue (Bohm, 1996) may be one example of what a relational field

look like in post-conventional consciousness. A Dialogue group holds a space where assumptions are suspended, views are revealed and examined as a group, so there is an open flow of information in the field.

Bonding vs Bridging Social Capital

Putnam (2000) identified two types of social capital: bonding and bridging. Bonding social capital tends to be inward looking to form close-knit communities. Bridging social capital are outward looking and builds connections between communities. It is natural for people to seek belonging. But if people seek belonging only in the form of bonding social capital could generate more divisions in a society. Bridging would also be needed to defuse the rigid boundaries of "us vs them" to create a wider sense of belonging.

Conclusion

This feels more like a beginning rather than a conclusion. But I will present a summary of what was covered in this paper.

Adult development psychology is an established field of knowledge that can be applicable to large scale system changes, but it is not yet widely applied outside of a niche within leadership coaching. The first part of this paper gave an overview of adult development psychology and why it could matter to change agents and designers of system changes. Adults have various levels of complexity in how they construct experiences, thoughts, and perspectives. These levels of complexity are on the "vertical" dimension of development, as opposed to the "horizontal" dimension, which is about the accumulation of more content (i.e. knowledge or skills). Research shows that adults are capable of "vertical" development just like children do. Leaders whom operate at a higher level of complexity are demonstrably more effective in leading organizational and social transformations. The society needs more leaders and change agents who have the mental capacity to respond to wicked problems in environments that are volatile, uncertain, complex, and ambiguous (VUCA). Adult development

frameworks can be used to develop the capacity of individuals and groups to navigate a complex world, yet it is not widely known or used within higher education institutions and organizations workplaces. Understanding the theory can also help to recognize miscommunications and conflicts that are caused by different levels of mental complexity.

The second part of this paper explores the challenge of people finding a sense of belonging to a larger common within the modern and postmodern society fraught with fragmentation. An aggregation of individual adult development does not necessarily translate to a collective transformation. There remains much to be learned about how to change the meaning-making, cognitive pattern, and worldview not just of an individual but a collective. I looked back into history for the roots of modernism and postmodernism. Modernism is rooted in differentiation and separation, which led to individualism; post-modernism is rooted in contextualizing, which led to pluralism. Each in their own way stretched the social fabric and added challenges for a society that needs to come together for a wider sense of belonging to tackle complex challenges. More complex forms of relationality are required that honours individual autonomy and diversity and also integrate them into a larger unity. The paper reviewed several ideas that may point towards new possibilities: Gergen's Relational Being, bonding vs bridging social capital, feminine views of development and worldviews, and fields of post-conventional consciousness.

As a final note, the development lens matters to our system transformations. The complexity level of our meaning-making and mental constructs determines how we respond to our environment and what new systems we create. The development of our interior complexity enables us to meet the rising complexity of an interdependent world that is both shaping us and is shaped by us.

Further Questions and Opportunities

Here I discuss several questions and opportunities that came up for me while exploring the theories and concepts in this paper. One question is: is there a distinction between ecological thinking as

a cultural value versus ecological thinking as a cognitive capacity? Understanding that distinction can contribute to how we develop ecological thinking. My interpretation of Kegan's theory is that people at his 4th order "self-authoring" mind are capable of systems thinking, and people at his 5th order of "self-transforming" mind are capable of ecological thinking. It is possible for people at the 3rd "socialized" mind to adopt ecological thinking as a value because that is what their social influencers value; but my hypothesis is that the capacity to adopt ecological thinking as a value is not the same as having the cognitive capacity to lead transformations at the ecological level. For example, I can imagine a young adult who holds the ideal that we should care about the environment, but because her cognitive capacity is still at the 3rd order, she can only think in binary black and white terms. She can join social movements, but she is limited in her capacity to lead and affect change to her immediate surroundings.

How might traditional communities be supported by adult development theories? Traditional communities and religious groups are mostly torn apart by modern culture's emphasis on individualism. These communities have difficulties passing down their traditions, while many independent adults find themselves without a rooted sense of belonging. One hypothesis is that the traditional communities are constructed for the 3rd order "socialized" mind, the highest stage of adult development before modern society. But these communities have trouble holding the tension that allows people to differentiate and think for themselves. If traditional communities can learn to hold the tension between differentiation and inclusion, then it could contribute to a higher sense of unity and belonging.

Could there be opportunities to adopt the adult development framework to a higher education program like SFI? If the institution wants to train new leaders who are capable of creating system changes, then the development framework could be an effective complement to the students' education.

Is there a framework that might help facilitators and leaders in facilitating large group dialogues? The developmental lens gets curious about how people construct the world differently, and that can extend empathy for people's different perspectives.

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