

# Finding What is Essential in a VUCA-Plus World II: Enablement, Perspective and Learning

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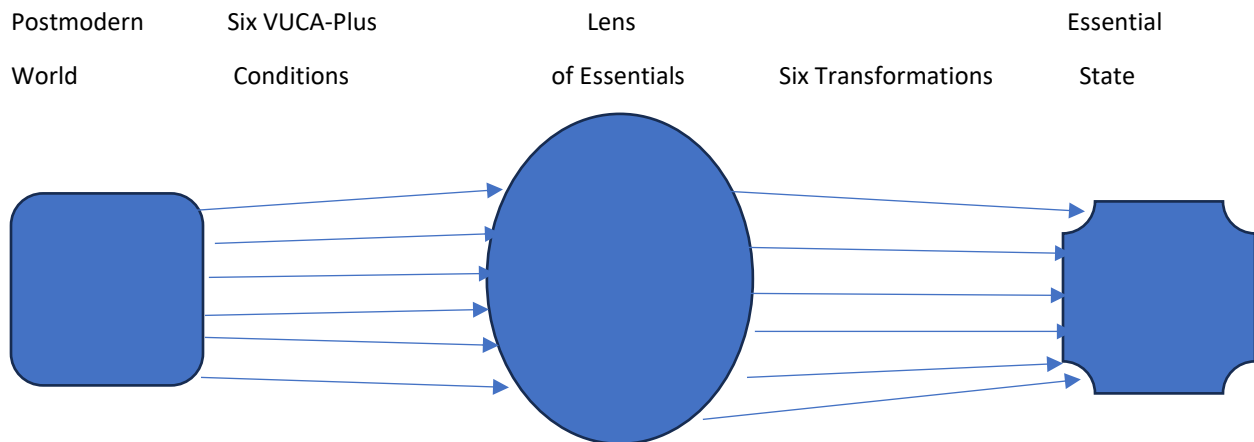
In the previous essay (Bergquist, 2024b), I introduced a set of strategies and tactics which I believe provide a viable alternative to Serenity as a way in which to cope with pressing VUCA-Plus issues (Bergquist, 2024a). I continue the presentation of strategies and tactics in this essay and in the third essay in this series. This set of strategies and tactics concern the Essential concerns embedded in each of the VUCA-Plus issues. I turn in this essay to ways in which complexity is transformed to enablement, ambiguity is transformed into an appreciation of perspective, and turbulence is transformed to learning and contradiction is transformed to prioritization.

## The Nature of an Essential Lens and the Assessment of Essential Outcomes

Before offering descriptions of these four transformations, I wish to provide a more detailed description of the Essential lens graphic that I introduced in the previous essay on Essentials as well as suggest how Essential outcomes should be assessed.

### The Model of Essentials

First the graphic.



We begin on the left side of this model. I proposed several decades ago that we are now living in a postmodern world (Bergquist, 1993). I have since proposed in multiple documents (Bergquist, 2020; Bergquist, 2022; Bergquist, 2024a; Bergquist, Sandstrom and Mura, 2023) that this postmodern world is saturated with the challenging conditions of vulnerability, uncertainty, complexity, ambiguity, turbulence and contradictions (VUCA-Plus). While we can seek to escape from these challenges by

entering a rabbit hole where a distorting Serenity exists, we can instead engage in a transformative process that enables us to make constructive and creative use of these six VUCA-Plus conditions.

The six arrows leading from the postmodern box in this graph point to the central figure in this graph which is what I am calling a “lens of essentials. This lens serves one of four functions. It can provide convergence, enabling us to sort out what is essential from that which is less important. Second, the lens can magnify by highlighting and providing detailed attention to that which is essential. The lens can serve an important third function. It can provide divergence by expanding our vision of that which is essential. A fourth function is served when the lens provides extension. We can look into the future to determine what is likely to emerge as essential.

On the right side of the lens in this graphic are six lines that point toward a box on the right of the graphic that is identified as the Essential State. These lines represent the transformations that are taking place with regard to each of the six VUCA-Plus conditions. It is through the use of convergence, magnification, divergence and extension that we can transform volatility into a process of anchoring and can transform uncertainty into a thoughtful discernment of the type of issues being confronted in our postmodern world. I address both of these transformations in the first essay in this series. I turn in this essay to the transformations that can be engaged via an Essential lens in addressing the challenges of complexity, ambiguity, turbulence and contradiction.

### **Assessment of Essential Outcomes**

Before I address these four Essential transformations, I wish to address an important matter related to the polystatic process I introduced in the previous essay. This process is critical to the dynamic transformations I am proposing. At the heart of this process is the ongoing cybernetic attention to the established baselines and Essential outcomes of the projects and programs in which we are engaged. Ultimately, the VUCA-Plus transformations are being made on behalf of these projects and programs. It is important (even critical) to know how we are doing and what can be learned from and what adjustments can be made in our project or program based on ongoing assessments.

In most cases, there are multiple outcomes to be assessed. While a project or program might have only one essential outcome, it is more common to find this project or program being assigned several outcomes. Establishment of a realistic polystatic baseline can be challenges given the presence of multiple desired outcomes, each of which can impact the nature and level of the baseline. It may be appropriate to portray the baseline as a target with multiple baselines being positioned on the target at varying degrees of difference from one another. At times, the baseline outcomes might even be positioned at opposite (contradictory) sides of the target from one another (Weitz and Bergquist, 2024). In many instances, however, the baseline outcomes stand not in opposition to one another but instead beside (complementary) one another—as is the case when transformations from complexity to enablement take place.

The outcomes usually can be assessed using quantitative measures. While, as we shall see in the next set of essays, the outcomes associated with the Lenses of Essence are best assessed in a qualitative manner, those related to Essentials lend themselves to numerical rather than narrative assessments

(Bergquist and Weitz, 2024). A Return on Investment (ROI) is often appropriate (Phillips and Phillips, 2008), as is an assessment such as Intentional Analysis that is focused at any one moment on distance from a desired baseline (Bergquist and Mura, 2014). The key point to be made is that the baselines assigned to a specific project or program as well as the assessments made of these baselines must be flexible—for any polystatic process is dynamic with feedback frequently (if not constantly) adjusting the baseline and creating new conditions for its assessment. As with Miller, Galanter and Pribram’s T.O.T.E. model that I introduced in the previous essay, Polystasis requires an ongoing “testing” of the actions taken, the information gained from this action, and the revised desirability of any specific outcome.

Having provided further clarity regarding the Essential lens graphic and in the previous essay, having described the ways in which the VUCA—Plus conditions of volatility and uncertainty can be transformed, I am now ready to focus on the four remaining conditions of VUCA-Plus: complexity, ambiguity, turbulence and contradiction

### **From Complexity to Enablement**

I have already introduced the distinction to be drawn between complex and complicated systems. At this point, I want to extend this distinction a bit further by relating it to the ways in which VUCA-Plus complexity can be transformed into enablement. Specifically, it is not only that elements of a complex system are interconnected. It seems that opportunities also exist for any one of these elements to assist another connected element to be more successful. I identify this assistance as *Enablement*.

Furthermore, some of the elements might hold a greater potential of being assistance than is the case with other elements. This is either because the enabling element is connected to many other elements (serving as a node in the system’s network) or because this element can provide much needed assistance (such as critical information, training and education, policies regarding safety or equity, or financial planning).

A colleague of mine served as both director of finance and director of strategic planning in her university. She had a great power of enablement in this institution. Another of my colleagues served for many years as Academic Vice President (AVP) and Director of Institutional Research in her college. Her capacity to enable came not only from her formal power as AVP but also as provider of critical information regarding broad institutional function.

A third colleague has combined his formal role as Director of Production in his organization with an informal role as a mentor and guide for young members of his organization. For many years, he would spend several hours after work on Friday going to a local bar with some of the newly minted employees in his own division (and more recently with young employees from all divisions). He listened to their stories, answered their questions, and recounted stories about the founding, successes and near disasters of this organization. A few beers helped; however, his caring and thoughtful manner was maximally enabling in bringing about this informal but invaluable new-employee orientation.

I offer a fourth example of enablement that concerns the human body rather than a human organization. My physician colleague, Jerome Fish, has spoken about the “Four Horses of the Apocalypse” in health care – borrowing from a best-selling book called *Outlive* written by Peter Allia

(2023). At the start of a health care forum that Jerome and I recently lead (Fish, 2024), Jerome noted that there are four major ways in which the lives of people are cut short. These “horsemen of the apocalypse” are heart disease, cancer, neurodegenerative diseases and type 2 diabetes. In each case, a key factor concerns the management of Insulin. Metabolic dysfunction association with insulin enables the four horses to operate. Insulin levels serve as an enabling node in the human physiological network. Dr. Fish and Dr. Allia would suggest that insulin regulation is an Essential element in medical treatment plans precisely because it is enabling. A focus on this enabling regulation could revolutionized the way in which people seek to extend their life.

### **Rogue Events and Leveraging**

Enablement shows up in many ways. It is found, as I have mentioned, in the way someone gains considerable influence in an organization and in the way that lives are extended. Enablement is also found in the precipitation of quite dramatic events. For instance, it often can be manifest in a rogue event that generates change in many areas of a system. Rogue events are likely to occur in particular when a system is complex with many connecting parts. The interconnectivity not only enables enablement, it also can set up conditions for surprise. A dramatic shift in one area of the system can rapidly lead to adjustments and even major changes in other parts of the system.

Peter Senge identifies several conditions that underlie a rogue event. Senge (1990, p. 63) first notes that cause and effect are not closely related in time and space in many complex human systems:

When we play as children, problems are never far away from their solutions—as long, at least, as we confine our play to one group of toys. Years later, as managers, we tend to believe that the world works the same way. If there is a problem on the manufacturing line, we look for a cause in manufacturing. If salespeople can’t meet targets, we think we need new sales incentives or promotions.

However, in some instances, a highly influential action or situation can influence something that seems far away in time or space. The resulting event can be identified as a *rogue event*. We use a term like rogue because we have been unable or unwilling to look beyond immediate cause and effect relationships to identify the real causes of the rogue event.

We don’t acknowledge enablement. We fail to recognize the enabling power of one part of the system as this part reaches out to other parts of the system. A change in accounting practices resolves our manufacturing problem and we are surprised. It is a rogue event because we had failed to connect accounting to manufacturing. We are surprised by the impact that a slight change in a specific product line has on the effectiveness of a sales campaign because we previously ignored the intimate relationship between product design and sales. A leader becomes unexpectedly ineffective in motivating her employees because the relationship between lower employee motivational levels and the company’s new compensation package is not recognized.

Senge (1990, p. 63) offers a second perspective regarding rogue events. He notes that small changes can produce big results: “small, well-focused actions can sometimes produce significant, enduring improvements, if they’re in the right place.” Gladwell (2000, pg. 7, 9) has focused on this dynamic in his description of *tipping points*. Specifically, he draws a parallel between tipping points and epidemics:

The Tipping Point is the biography of an idea and the idea is very simple. It is that the best way to understand the emergence of [unanticipated and profound changes] is to think of them as epidemics. Ideas and products and messages and behaviors spread just like viruses do. . . . [T]hree characteristics—one, contagiousness, two, the fact that little causes can have big effects, and three, that change happens not gradually but at one dramatic moment—are the same three principles that define how measles moves through a grade-school classroom or the flu attacks every winter.

This tipping-point principle—which systems thinkers call *leveraging*—parallels the chaos theory concept of self-organizing criticality. It is insightfully illustrated by Buckminster Fuller in his description of the way in which trim tabs on the rudder of a ship are used for navigational purposes: (Senge, 1990, pp. 64-65)

A trim tab is a small “rudder on the rudder” . . . It is only a fraction the size of the rudder. Its function is to make it easier to turn the rudder, which, then, makes it easier to turn the ship. The larger the ship, the more important is the trim tab because a large volume of water flowing around the rudder can make it difficult to turn. . . . [S]hips turn because their rear end is “sucked around.” The rudder, by being turned into the oncoming water, compresses the water flow and creates a pressure differential. The pressure differential pulls the stern in the opposite direction as the rudder is turned. . . . The trim tab . . . does the same for the rudder. When it is turned to one side or the other, it compresses the water flowing around the rudder and creates a small pressure differential that “sucks the rudder” in the desired direction. . . . The entire system—the ship, the rudder, and the trim tab—is marvelously engineered through the principle of leverage. . . . So, too, are the high-leverage changes in human systems . . .

Trim tabs provide a small change that impacts much larger changes. Similarly, rogue events are often small forces that impact on larger forces, which in turn bring about massive change in an organization. Much as a massive avalanche is precipitated by some small event (such as the shifting of a stone at the top of the snow-covered hill) so we may find that movement of substantial resources in an organization is triggered some small event (such as a single industrial accident or a compliment offered regarding a specific service rendered to a high-profile customer).

Essential-oriented leadership may be effective when it operates like a trim tab. A leader may not be able to turn the ship or organization themselves, for the organization is simply too big, too complex or too unwieldy for any one person to make a major impact. Rather, the effective leader looks for enablement. They will pick a specific rogue event that has already occurred or will help to create a small, roguish event that will, in turn, impact other moderately large events, which in turn may bring about significant organization-wide changes.

Often, as in the case of Fuller’s trim tab, one will actually produce, use or encourage a rogue event that moves an organization in a direction that is opposite to that which is intended. The reaction to this event will, in turn, create a new momentum that moves the organization in the desired direction. One is reminded of the biblical tale in which the wise counselor offers to cut a child in half in order to resolve a conflict regarding custody of the child by two contending women. The horrible prospect of such an act drives at least one of the women (the true mother) in the opposite direction. She is willing to give up the child in order to spare its life. In this way, the true mother was discovered. A threatening inhumane act was averted that could have led to humanity and resolution of the conflict.

An excellent, real-life example regarding the use of leverage and rogue events in corporate life concerns the emergence of courage and honesty among a group of corporate executives in a major American financial institution. I was consulting with a senior vice president in this institution, who had a reputation among his vice-presidential subordinates for being very demanding and intimidating. The Senior Vice President knew that he was discouraging risk-taking behavior through his abrupt manner. He wanted to change this style of leadership in order to encourage more creative problem-solving on the part of his staff during a particularly turbulent transition in the life of his financial institution.

A consulting team that I led collected extensive information from his vice presidents regarding the Senior Vice President's leadership behavior. Much of this information was quite critical of him. After reporting the information back to him (which he received quite openly), the team met at a retreat site with the Senior Vice President and all of his subordinates. The team presented an oral summation of the interview data. The immediate and highly emotional reaction of his vice-presidential reports to this presentation was an absolute and unqualified rejection of everything that the consulting team had said: "[Senior Vice President], you are a wonderful leader! How could the consultants have so grossly distorted the facts! Who hired these incompetent people!"

Members of the consulting team began to wonder if they were at the right meeting or if they had been set up. After about twenty minutes of killing-the-messenger, one of the vice presidents (who had been quiet) spoke up. He took a deep breath and then stated that "the information being presented by these people is accurate. I've talked with many of you in my office or in the hall about these very issues. I'm tired of beating around the bush. Let's bring this stuff out in the open!" There was a short pause. Everyone looked at the senior vice president for his reaction. He appeared to be somewhere between neutral and appreciative of the vice president's candor. The other vice presidents then began cautiously to state their own concerns and verify that the information contained in the oral report was accurate. The meeting was productive and tangible steps were taken to alleviate some of the personal and structural problems that this group of financial leaders faced.

The vice president who first spoke up exhibited *organizational courage*. The Senior Vice President also exhibited organizational courage. After all, he had contracted with the consulting team in the first place to present their critical report (without editing) to all of his vice-presidential reports. Perhaps both men were simply tired of the old way of operating. They were willing to take risks in order to change things. Perhaps both men felt sufficient job security to take a chance. Maybe I was witness to a very special kind of "roguish" organizational courage that was unexpected in this organization (or at least in this team of organizational leaders).

Typically, when courage does occur in an organization, it operates like a self-organizing system in which the neighborhood effect is in play. First, one person takes a risk; then the person next to them takes the risk. Soon everyone at the table is "flocking" around the act of candor. The starting point for this courageous tipping point is unpredictable, momentary, surprising, and often transforming. We usually can't determine beforehand when organizational courage will be exhibited or who will be the courageous person--though we are often terrific Monday morning quarterbacks. We can't accurately predict when or where the first act of courage will be engaged. However, later on we can look for points of connection in our system (there are often many). We can follow this up with analyses regarding how and why this impactful connection took place. In the future, we might be able to do a better job of predicting courage. However, the manifestation of courage is still likely to surprise us, and a rogue event is likely to occur.

A second example of the rogue event (as it relates to leadership) comes from a quite different source: John Lennon of the Beatles. Before his death, Lennon often told a story about the police who were protecting John and the Beatles at a concert in Los Angeles. The crowd became very excited during the concert. Members of the crowd began to storm the stage located in the middle of a baseball field. The police began clubbing members of the crowd. Serious injury was eminent as members of the crowd became more agitated and the police grew more anxious about their own safety, as well as the safety of the Beatles. In a remarkable rogue action, John Lennon suddenly stopped the concert. He calmly told the police that “these people will not harm us, so please don’t harm them.” The crowd and police immediately ceased their confrontation, everyone quieted down, and the Beatles completed their concert with no further incidents. This exemplified the intrusion of courage or optimism into a complex and highly charged event. This one action, by John Lennon, manifests self-organizing criticality and dramatically changed the emotions and behaviors of all people who were involved in the concert-- as did actions taken by the Senior Vice President and his vice-presidential subordinate at the retreat setting.

### **The Delay Function**

Complex systems are challenging to understand and manage not only because all of the parts of this system are interconnected but also because the nature of the connection between all of the parts is quite diverse. Complex human systems do not operate like a Swiss watch (or any other kind of machine) with carefully crafted connections between all of its parts. Rather, a human system operates as a messy living entity with inconsistent connections between parts. Sometimes the parts are connected through physical links (as in interlocking gears), while at other times they are connected via shared information and coordinated execution. This messiness is also found in the ongoing allostatic adjustments being made in anticipation of changing environmental conditions. These allostatic predictions being made become even more challenging when differing information is being received and integrated by these different parts. Given these differing sources of information, it is difficult to coordinate actions to be taken by these interconnected parts to address these predictions.

There may be something of greatest importance than difference in the information receives. These are the differences to be found in the amount of delay occurring in the sharing of information or resources from one unit of the system to other units in the system. There are also delays in the predictions being made by each part. The adjustment being made based on these predictions is also delayed. Without the comfort of a mechanistic homeostatic model of biological and organizational functioning, the delays to be found in a system can throw a wrench into its Allostatic workings. Delays can mess up the Allostatic process and lead one to simple predictions and fast thinking that are based on a false and manufactured (heuristic) sense of reality.

As system theorists such as Donella Meadows (2008, pp. 57-58) have noted, the delays that operate in all systems have much to do with how this system operates:

Delays are pervasive in systems and they are strong determinants of behavior. Changing the length of a delay may (or may not, depending on the type of delay and the relative lengths of other delays) make a large change in the behavior of a system . . . Changing the delays in a system can make it much easier or much harder to manage. You can see why system thinkers are somewhat fanatic on the subject of delays. . . . We can’t begin to understand the dynamic behavior of

system unless we know where and how long the delays are. And we are aware that some delays can be powerful policy levers. Lengthening or shortening them can produce major changes in the behavior of systems.

The VUCA-related impact of delay is considerable. First, delays in a system increase uncertainty regarding how the system operates and what the outcomes will be of its operations. Second, delays tend to cause oscillations in the system, as one part of the system overreacts to the delayed receipt of information or resources from other parts. This oscillation, in turn, increases volatility and uncertainty. Third, differences in delays regarding connections between units increased both volatility and ambiguity. Turbulence is created with all four subsystems in the white water being in operation--often in opposition to one another. One part of the system reacts quickly to changes in other parts of the system. Another part of the system reacts quickly--but in its usual cyclical pattern. Partial changes are made, but then there are delays in other changes that need to be made. Eventually, there is a return to the old, established way of doing things. There is resistance to change in other parts of the system. With all of the bumping together of different delay patterns there is nothing but chaos in some parts of the system. Varying delays (and levels of acceptance) regarding implementation of a change contributes further to the abundance of chaos to be found in many systems—especially those in the mid-21<sup>st</sup> Century that are saturated with VUCA-Plus conditions.

Fourth, even if there is relative consistency in the delayed flow of information and resource from one part of the system to another part, the dynamics of any system are dramatically changed as a result of the length of delay. Some of the most important (Essential) changes to be made in any system relate to this matter of delay duration. Long delays often have a greater impact on the system than the number of resources available, size of the system, or the amount of information that is available. Systems that face an avalanche of VUCA-Plus challenges often become frozen in place--like a frightened animal on the African savannah (Sapolsky, 2004). In this frozen state, delays become large and significant. When the unfreezing takes place (if it ever does) then there is suddenly an inconsistent flood of information and resources to all parts of the system—leading to extensive oscillation and increased VUCA-Plus related anxiety. Accurate predictions can't be made and inappropriate reactions by members of the system are taken. This failure further increases the collective anxiety.

### **Leader as Butterfly**

Using an analogy that a Chinese colleague of mine has offered, the leader serves as a butterfly when seeking to understand, make predictions, and act upon an Essential condition. This type of leader knows that she has a limited time to live (or be credible). She must constantly change and shift directions with the wind. The butterfly is not protected in the cocoon (living in Serenity) nor does this butterfly leader do the mundane and safe managerial work of the silkworm (ignoring the Essential).

The butterfly leader is not always valued for her practicality, as is the silkworm leader, nor does she have the *potential* assigned to a leader who is living in a cocoon. The butterfly leader is a real person rather than a mythic possibility. The butterfly leader must find purpose and value in subtle ways. She must carefully choose a perspective while learning how to center and balance in a white-water environment. I am about to



consider the matter of perspective and will be focusing on white-water balance in the second essay in this series.

## **From Ambiguity to Perspective**

When addressing the prominent VUCA-Plus condition of Ambiguity, it is important to determine the perspective to be taken in viewing the world and determining what is real. Up close (a proximal perspective) our world is likely to feel quite hazy. Everything is swirling around us in something of a blur and in great quantity. It is sometimes stated that we are receiving our news as if the fire hydrant has been opened up and we are trying to have a drink. Fortunately, we have the option (at least at times) of taking a more distant view of our world (a distal perspective). We can listen to a historian. They can place our current crises in a broader (even cyclical) context. We can look toward a far horizon (both temporal and spatial) to gain a clearer sense of what is occurring. This broader perspective is particularly important if we are concerned with Essential matters in our relationships, organization, community, nation or planet—in our life!

There is also the matter of choosing the mode of discernment we take regarding our view of the world. Do we rely on numbers or on narratives? Do we focus on the big picture or on the smaller, more intimate picture? Which mode of discernment is most likely to lead us away from Ambiguity to a clear and “realistic” viewpoint?

### **Numbers vs. Narratives**

As we seek to identify and gain a full understanding of that which is Essential, a central problem emerges regarding Ambiguity. When things are hazy, reality depends on the way in which “facts” are framed (Weitz and Bergquist, 2024). Do we focus on convincing numbers or a compelling narrative when seeking to deal with something that is Essential? Which source of “facts” is most important for us to embrace when addressing something that is very important? Do we seek out the Quantitative Facts that are in front of us and other people? Or do we search for a story that elicits emotions and a sense of personal understanding?

In the battle between numbers and narratives, bet on the narrative—especially when it comes to finding what is Essential in the midst of Ambiguity. Even more importantly, bet on the single case rather than the numerous cases. Behavioral economists (e.g. Kahneman, 2011; Ariely, 2008) have shown us that we are most likely to attend to a specific tragic event rather than the large-scale catastrophe. There is the remarkable photographic portrayal in the movie, *Schindler's List*, of a single girl in a Jewish Ghetto being followed through the streets as people all around her are being herded off to the concentration camps. Somehow, the tragic life (and death) that is awaiting this girl is more compelling than the tragedy evident among those who have already been placed in trucks that are headed to the camps.

A social reconstructive essayist, John D’Agata (D’Agata and Fingal, 2012), pushes it even further. For D’Agata it is not just a matter of influence—it also a matter of understanding and appreciation:

Numbers and stats can only go so far in illustrating who a person is or what a community is about. At some point, we must . . . leap into the skin of a person or a community in an attempt

to embody them. That's obviously an incredibly violent procedure, but I think that unless we are willing to do that . . . then we're not actually doing our job.

D'Agata might accept the cautionary note offered by Jim Fingal, his fact-checking colleague. Fingal counters D'Agata with his concern about getting the facts right and portraying reality. D'Agata then counters Fingal by emphasizing the need for a genuine (rather than superficial) understanding of reality. Put simply, do we really learn anything from a number rather than a narrative? When faced with an Essential issue, do we really understand what has happened when we are generating statistics rather than watching, listening, and feeling what is actually occurring out there in the world?

### **Ideographic vs. Nomothetic**

Clarity in the midst of ambiguity also can be addressed through the choice of specific modes of analysis when seeking to make predictions based on what is "real." Psychologists offer a distinction between Ideographic and nomothetic modes of analysis. Is "reality" and are facts to be found in large numbers (nomothetic perspective) or in the specific case (ideographic)? The noted psychologist Robert Coles (e.g. Coles, 1967) embraces an ideographic perspective. He focuses on individual cases and provides a general observation only after many individual cases have been presented. Guided by the ideographic methods engaged by Henry Murray (2007), Coles and his colleague at Harvard University—such as Erik Erikson, Gordon Allport and Robert White—featured extended narratives in their presentation of insights gained from intensive study of single individuals.

We encounter a quite different mode of analysis when we leave the ivy-covered halls of Harvard and travel West to the wheat fields of Middle American. It is in the public universities of the Mid-West (especially Minnesota and Illinois) that we find the heartland of nomothetic analyses—embedded in what has been called "Dustbowl" empiricism. Behavioral scientists at these universities were strongly influenced by the logical positivists of the early 20<sup>th</sup> Century Vienna Circle. Many of these positivistic philosophers and scientists escaped Europe before World War II and found academic positions at growing Mid-West universities. The behavioral scientists in these universities were particularly influenced by these positivist perspectives. They tended to assert that statements of fact are legitimate only if they are based on verifiable evidence.

Being guided by this strongly empirical stance, psychologists, sociologists and anthropologists of the mid-20<sup>th</sup> Century generated large amounts of data on behalf of the identification and classification of many complex phenomena. Aided by the early use of high-powered computers, a large number of empirical studies were conducted to address such elusive phenomena as mental disorders (the Minnesota Multiphasic Personality Inventory: MMPI) and personality traits (Cattell's Illinois-based 16 Factor studies). Unlike that found in the halls of Harvard, speculation was discouraged in these Mid-West universities. "Pompous" theorizing was set aside, while attention was devoted that that which can be assigned a number and can be verified at a 95% degree of confidence. Behavioral observations were king (if they could be measured). Individual case studies and personal narratives were left to the novelist and poet.

Nomothetic Facts have profoundly influenced the way in which we think about and catalog mental disorders. The MMPI is still widely used in mental health facilities. Quantitative facts have been less frequently used to describe personalities. Over the past forty years, the study of individual lives (such as those conducted by Erik Erikson, Robert Coles' colleague at Harvard University) has had a much greater impact than factor analyses on the way in which we think about personality and human development over a lifetime—though a factor-analytic based model often called "O.C.E.A. N." has gained considerable traction in recent years. Facts about one person as they change over a lifetime gain our attention—whether these Facts are presented in a fictionalized novel or in a psychobiography. As D'Agata asserts, we might "not be doing our job" if we opt out for means, variances and correlations, rather than quotations, stories and portrayals.

There is another important perspective to keep in mind regarding nomothetic and ideographic analyses—especially when seeking to make predictions in the midst of VUCA-Plus Ambiguity. In most instances, large scale measurements (nomothetic) lead us to higher levels of accuracy and lower levels of Ambiguity than do more intimate measurement (ideographic). We can predict with some certainty the number of people on a specific day who will select Cheerios for their breakfast meal. However, we can say very little about the probability that Susan Thomas living in Little Rock Arkansas will choose Cheerios today. Considerable Ambiguity is to be found in rendering a portrait of one person's behavior (proximal perspective). Predictions regarding choices that this person will make today yields even greater Ambiguity—and Uncertainty. It is only from a distance (distal perspective) that our world sometimes seems understandable and somewhat predictable.

### **From Turbulence to Learning**

Life on the white-water river can be both enthralling and terrifying. As Peter Vaill has noted, a turbulent environment is filled with surprises, novel problems, and messes (ill-structured issues) (Vaill, 1996, pp. 10-12). Costly and annoying problems emerge and often recurrence (Vaill, 1996, pp.12-14). Put simply, confusion abounds (Vaill (1996, p. 178):

Another word for permanent white water is confusion--the problem of what to believe; whom to trust; what events, technologies, groups and organizations, and laws and traditions can serve as anchors of meaning. In the modern world, meaninglessness derives not only from an absence of sources of meaning but, ironically, also from a surfeit, a cacophony of competing meanings as offered by this or that guru, this or that "total system," this or that self-improvement program. The incredible variety of competing sources of potential meaning acts back on our consciousness, adding to the confusion we feel. We often hear criticism that people tend to go from one "solution" to another, to jump from bandwagon to bandwagon without ever touching solid ground.

The whitewater environment is truly one in which the challenge of finding that which is essential can be great. As Vaill noted, this environment is filled with competing meanings and priorities. The VUCA-Plus condition of turbulence meets the condition of Contradiction. Confusion is the whitewater environment also comes from prevalent conditions of volatility, uncertainty, complexity and ambiguity. The full complement of VUCA-Plus conditions is often present.

With all of these challenges to face, the one Essential opportunity is often overlooked. There is a wonderful opportunity for significant learning to take place. There is also a requirement that this learning take place (Vaill, 1996, pp. 19-20):

Permanent white water puts organizations and their members in the position of continually doing things they have little experience with or have never done before at all. The feeling of 'playing a whole new ball game' thoroughly pervade organizational life. . . . *This means that beyond all of the other new skills and attitudes that permanent white water requires, people have to be (or become) extremely effective learners.*

The importance of learning particularly lifelong learning, has been stressed repeatedly over the past two or three decades . . . The validity of these calls to arms is finally being confirmed by our experiences in the permanent white water of modern organizations: we are all playing catch-up. . . . The present of permanent white water demands that we look anew at the challenge of continual lifelong learning . . .

I would frame the issue of learning in a whitewater environment a bit differently. First, I would frame this learning in a more positive way than was the case with Peter Vaill. A turbulent environment opens up opportunities as well as challenges. As I will soon note, whitewater environments are not only filled with experiences of Awe. These environments are also filled with the possibility of achieving a remarkable psychological state called Flow. It is when Awe and Flow come together that we can engage in truly exceptional learning.

I would also like to take one step beyond what Vaill has proposed regarding the nature of learning that can occur. Given that four systems are operating in a whitewater environment, there are different lessons offered in each of these systems. An abundance of diverse learning opportunities is available if we can move beyond the panic and survival mode that often accompanies a daring journey down a whitewater river. In this essay I will consider some of these learning opportunities in each of the turbulent systems but will turn first to the basic stages of learning that take place in a challenging whitewater environment.

### **Stages of Learning**

Many years ago, the noted social psychologist, Kurt Lewin described significant learning as taking place in three stages: unfreezing, learning/change, and refreezing (Lippitt, Watson and Westley, 1958). These three stages are directly applicable with regard to the learning that can take place in a world of turbulence and white-water. We must first unfreeze—which means facing conditions that challenge or disturbing our existing way of being, thinking and feeling in the world. Without the unfreezing, we are not truly open to new learning. The second stage of learning and change is where something new is acquired that alters our way of being, thinking and feeling to some degree. The third stage concerns the firming up of our commitment to and regular (habitual) use of the new learning.

I propose that Lewin's three stages are found in successful learning while navigating white water. I align the unfreezing with apprehensions that inevitably accompany our entrance onto the whitewater river. Learning occurs through the engagement of appreciation and by means of the interplay between two

dimensions of significant learning—these being assimilation and accommodation. Furthermore, learning occurs in somewhat different ways in each of the four systems operating in the whitewater environment: rapid movement, cyclical movement, non-movement (stagnation) and chaotic movement.

Finally, learning on the turbulent river is best firmed up and reinforced in a setting which nourishes interpersonal collaboration. We retain and use what we have learned when we are joined on our boat by “fellow travelers” who are “co-learners” and “co-leaders.”

*Apprehension:* There are two psychic forces that swirl around us when standing on the shore of a raging whitewater river and anticipating that we will soon be entering this river in a kayak (or some less appropriate vessel). The first force is *Awe*. We look out at the river and find it to be awe-full: beautiful, surprising, treacherous, powerful. Keltner (2023, p. 13) writes about this kind of inspiring natural Awe. It is to be found in the witnessing of an earthquake, thunderstorm or wildfire. We stand passively on the shore. We deeply admire what we view in front of us. We also are fearful of what we see in front of us.

The second force is located at the other end of the spectrum from Awe. This second force is the prospect of *Flow*. It is under conditions of challenge that is matched with sufficient capacity that we experience the exceptional and uplifting experience of Flow (Csikszentmihalyi, 1990). We can anticipate the experience of Flow if we know that it is possible for us to be successfully challenged in navigating this whitewater environment. Our body is energized. Adrenaline kicks in and we experience one of the three primary stress responses. This is fight! We can do it!

Or can we? Is the river too strong for us? Do we lack the knowledge, experience or strength to guide our boat through the swirling water and down the raging river? Fear sets in. The adrenaline is now energizing one of the other two stress response. We want to run away or remain frozen.

We are apprehensive. Torn between fight, flight and freeze.

*Appreciation:* There is an alternative perspective to be taken regarding the turbulent river on which we soon might be afloat. We can breathe in the oxygenated air that accompanies the turbulent water and can savor the richly textured sounds of the tumbling water. We become satiated with the Awe rather than remaining fearful of the Awe-fulness. We can follow the flow of the river and envision finding Flow within our self while navigating on the river. We can view this as an opportunity to learn rather than as a prospect of failure. This is a teachable moment if we allow our self to dwell on the positive prospectives rather than the negative possibilities.

This decision point regarding appreciation versus apprehension seem to be aligned with what Peter Vaill (1996, pp. 73-75) identifies as “feeling learning”:

Feeling learning is one of the most important modes of learning as a way of being because the pace, pressure, and complexity of permanent white water can leave us distracted, anxious, and breathless. Millions of us go through years of intensive learning in the institutional learning mode without ever getting much help in feeling and internalizing what we are learning and what

we know. The institutional learning model tends to omit all the deeper modes of learning and knowing and the help we need with these, not because the philosophy of institutional learning denies the existence of the deeper modes so much as that it lacks methods for conducting learning at this level. Learning as a way of being is learning by a whole person, and that means feeling the learning as well as possessing it intellectually.

Feeling learning probably is one of the most important factors in retention of what is learned. Maybe the reason information we "cram" is retained only for a short period is that we do not develop our feeling for the material but try only to remember it on a technical level. Feeling learning also enormously enriches the learning experience. Even institutional learning expresses this in one of its favorite cliches, the "love of learning." Love of learning is real. And it is essential.

It would seem that the conversion of apprehension to appreciation and the savoring of Awe and anticipation of Flow are moments of feeling learning. Apparently, we don't even have to launch our kayak in order to begin the learning process. We learn about ourselves at the moment we decide to engage the turbulent environment of the river.

There is additional learning on the river. Peter Vaill mentions several kinds of learning that take place in the whitewater world. In setting the frame for presentation of these forms of learning I turn to the fundamental insights regarding learning that were offered by Jean Piaget, the noted Swiss biologist and observant child psychologist. He distinguishes between the assimilating and accommodating dimensions of all significant learning.

*Assimilation:* Piaget proposed that there are to every coin of significant learning. One side of the coin is *Assimilation*. As a learner, I must have an existing frame of reference for any new experience I encounter. Without this frame, I will not be able to make any meaning of the new experience or will label it and absorb it inaccurately. The other side of the coin is *Accommodation*. I must somehow adjust what I now know or believe given the new experience. If nothing changes, then nothing is learned.

When turning apprehension about the whitewater world into an opportunity for new learning, I must first do some assimilating. I must find a way to move beyond just Awe regarding the turbulent world face. I must somehow make this world of whitewater make some "sense." There are three actions I might take. First, I can appreciate what I already know and what I have already done in other whitewater world. Second, I can remain clear, as Vaill (1996, pp. 187-188), proposes, about mission and purpose. Why am I on the river. And why am I seeking to learn something new. I am on the river. I am leaving "on behalf of" something of importance. I am reminded of the Tarot card of the Charioteer. He is traveling forward--yet carrying his chariot with him. At a more mundane level, it is like the snail who carries its shell while moving through its environment. My mission and purpose are the chariot and shell.

Third, I launch my kayak on the turbulent river knowing that I will make mistakes. I will have to frequently correct myself (one of the reasons to embark on the journey in a kayak rather than less

“agile” canoe or skiff). Vaill (1996, p. 82) submits that a successful reflective learner “is able to see the learning process as continual experimentation rather than a system that gives the learner only one or two chances to ‘get it right.’” As Argyris and Schön (1978) often emphasized, one is successful in facing challenging times not by avoiding mistakes, but instead by learning from these mistakes and avoiding the same mistakes a second or third time. Ongoing organizational learning is based on this tolerance of mistakes but intolerance of repeated mistakes. The term “action research” is often used to describe the tight feedback-based process identified by Argyris and Schön.

Vaill (1996, pp. 70-71) actually moves beyond the notion of action research when borrowing from the concept of “action learning” that has been used by R. W. Revans (1986):

A pioneer in this point of view is Revans, with his process of action learning (Revans, 1986). In the United States, action learning means taking action in an organization, learning from the results, and incorporating that learning into further action. (This process is also often called action research.) Revans's idea of action learning is quite different: it is to create learning teams of working managers to work on real organizational problems and to structure the experience in such a way that both useful solutions to these problems emerge and substantial learning occurs for participants, learning that goes beyond the technical details of the particular problem. Interpersonal relationship learning occurs through group meetings as participants learn from each other and from those they must consult, historical learning occurs from seeing the problem through time, strategic learning occurs through seeing the problem in relation to broader organizational objectives and processes, and paradigmatic learning occurs through challenging underlying assumptions. In the process, traditional ways of doing things move from being sacred to being problematic; and in general, the whole matrix of policies and practices and ideas within which the problem resides become the objectives of group interaction and mutual learning. As Revans neatly sums up the concepts, “*real* people learn with and from other *real* people by working together in real time on real problems” (p. 75).

With the process of action research—and action learning in particular—in place, we are moving from assimilation to accommodation when adjusting to the mistakes that have been made

*Accommodation:* We must be open to doing things differently when we have made a mistake. As Peter Vaill (1996, p. 82) notes, this means that we must be conscious of the fact that we are about to learn something new and are about to try out something different. In a learning organization, an assumption is made that everyone will be engaged in ongoing growth through learning. Vaill (1996, p. 82) suggests that this means we should feel free “to ask for help without embarrassment of apology and [are] able to be non-resentfully dependent on someone who has more knowledge or expertise.” The assumption of ongoing learning and growth is accompanied by a commitment to psychological safety (Edmondson, 2018)—alongside training, mentoring, appropriate levels of authority and accountability, and commitment to measurement.

Ultimately, accommodation relates to learning from the context and environment in which we are operating. The context and environment are teaching us through the mistakes that we make. It is when we fail that we learn most about the context in which we are operating—especially in a whitewater

environment. It is also important to recognize that we must never just accommodate. The chariot in which we are riding and the shell we carry with us must never be abandoned. We are always accommodating (and learning) on behalf of some enduring mission and purpose—as Peter Vaill reminds us. Thus, we can blend accommodation and assimilation.

We can review and appreciate our past successes in a similar whitewater setting. We can reflect on and learn about ourselves as a learner and successful accommodator. We can appreciate our own skill as a “change agent” – especially when the change is occurring inside our own head, heart and actions that we take. All of this is a major challenge for those of us who are navigating a whitewater world. The challenge is a little easier to address when (to quote the Beatles) we “get a little help from our friends.”

### **Learning in Each of the Four Turbulent Systems**

Each of the four systems operating in a whitewater environment require a somewhat different approach to learning – and each system offers us a different “lesson plan.”

*System One--Rapid Movement:* this system requires learning in “ultra-drive.” Peter Vaill writes about continual learning (Vaill, 1996, pp. 79-80) For Vaill this means learning that is interconnecting all sources of meaning. It involves a sustained openness to new experiences—which is certainly to be found when navigating a rapidly-moving river. Often mediated by computerized (“on-line”) instruction, the navigator of whitewater environments tends to rely on just-in-time learning. As Vaill notes (1996, p. 76), on-line learning tends to “de-institutionalize” the learning process. It can occur at any time and in any place. There is no need for a classroom or a formal instructor. We know that this form of “just-in-time” learning tends to be more effectively retained and used than learning which occurs in a formal educational setting (Bergquist, creating the appreciative organization).

There is another important advantage associated with on-line education. Since it can occur “just-in-time” there is likely to be shorter gap of time between the need for new ideas and the delivery of these ideas. This leads to the potential for greater organizational agility if this orientation to learning is shared among all members of a system. We can begin to identify and promote collective agile intelligence that enables a team to learn fast, think fast and adjust fast—abilities that are clearly needed when navigating the rapidly moving subsystem of a whitewater river.

*System Two—Cyclical Movement:* Peter Vaill (1996, pp. 84-85) identifies what he calls “reflexive learning.” This type of learning seems to “come naturally.” It is a tacit form of learning that enables us to “know” which settings are most amenable to learning for us. Reflexive learning also occurs when we gain a clear sense of how we best cope with pains, frustration and disappointment in our work and life. We “know in our bones” what the limits are regarding our openness to new learning and new challenges in our life. All of this reflexive learning occurs because we repeatedly arrive at the same place in our work and life. We live in cycles and can learn profound things while living again and again through these cycles.

There is another important way in which system two movement can yield a distinctive form of learning. Cycles tend to elicit ceremony. Even if it is just a sigh of relief when at the end of a work week or a cup of coffee at the start of a new day, there are moments when we repeat certain “rituals” to acknowledge



the start or end of something. “Ceremonial learning” can also take on a larger and more formal function—related to an important motivator called “generativity.” As Gary Quehl and I have noted (Bergquist and Quehl, 2019), we are generative when we care deeply about and engage in actions that are aligned with this deep caring. There are ceremonies of caring that honor transitions such as weddings, anniversaries, births, new jobs, retirement and (finally) death. Each of these ceremonies concerns the need for new learning associated with profound change. There also are ceremonies that commemorate past achievements, heroic actions, and emerging challenges. These ceremonies encourage learning about the past so that we can do better in the future. Or they encourage new learning regarding what is about to occur.

These cyclical celebrations tend to occur in unique settings that suggest what is learned will differ from that which is experienced and learned in other settings (Graeber and Wengrow (2021). They also tend to elicit Vaill’s feeling learning. Repeated cycles produce reflexive (tacit) learning and ceremony-based learning that penetrate our heart as well as our head. As Vaill notes (1996, p. 74):

. . . in permanent white water, learning is not restricted to facts and methods. We are also possessed of learning attitudes – attitude of curiosity, courage, trust, self- respect, tough-mindedness., optimism, and an ability to keep a sense of perspective.

These important attitudes are found in the midst of repetition. They are rarely acquired in one setting or at one sitting. We learn “in our bones” by experiencing and responding to similar events a second and third time. We ensure that this in-the-bones learning is retained by embedded and celebrating it in ceremony. We learn again and again every time we attend the church service, blow out the candles on our birthday cake, or witness a couple taking their wedding vows.

*System Three—Non-Movement [Stagnation]:* One’s initial impression might be that there is little to learn in a system that isn’t moving. Stagnation implies status quo and closed-mindedness. I would suggest that this is a misconception. There is much to learn about the way things now exist and operate in any system. This can be framed as “appreciative learning.” We focus on that which is strong and effective in our current work environment. We come to appreciate that which is right in front of us. Like Jimmy Steward in “A Wonderful Life) we discover that we have made an important difference in the world where we live and work. And we don’t need an angel to guide us—though an appreciative coach or consultant might be of value.

To fully appreciate the nature and power of an appreciative perspective regarding learning, we begin with acknowledging that we should be in the business of establishing mutual respect with our colleagues in a working environment. With them we are in a mutual search for discovery of distinctive competencies and strengths. The goal is not to change intentions (goals, purposes, etc.), but to help others (and us) fulfill existing aspirations. (Srivestva, Cooperider and Associates, 1990) The term appreciation itself has several different meanings that tend to build on one another; however, appreciation refers first to a clearer understanding of another person’s perspective. We don’t try to change this perspective (moving into one of the other subsystems of the whitewater world); rather, we come to appreciate the point of view being offered at the present time by our colleague(s).

Appreciation also refers to an increase in worth or value. A painting or stock portfolio appreciates in value. The painting doesn't have to be altered nor does the stock portfolio need to be modified. Value can increase even if no movement is taking place. Van Gogh looked at a vase of sunflowers and in appreciating (painting) these flowers, he increased their value for everyone. He doesn't have to alter the arrangement or replace the sunflowers with roses. Nothing needs to change for value to increase. Van Gogh similarly appreciated and brought new value to his friends through his friendship: "Van Gogh did not merely articulate admiration for his friend: He created new values and new ways of seeing the world through the very act of valuing." (Cooperrider, 1990, p. 123)

From yet another perspective, the process of appreciation concerns our recognition of contributions that have already been made by another person: "I appreciate the efforts you have made in getting this project off the ground." Appreciation can be exhibited in a constructive manner through the daily interaction between an administrator and her associates. It involves mutual respect and active engagement, accompanied by a natural flow of feedback, and an exchange of ideas. More specifically, appreciation is evident in attitudes regarding the nature and purpose of work. If the administrator "sees work as the means whereby a person creates oneself (that is, one's identity and personality) and creates community (that is, social relations), then the accountability structure becomes one of nurturing and mentoring." (Cummings and Anton, 1990, p. 259)

Appreciation in an organizational setting also refers to recognition of the distinctive strengths and potentials of people working within the organization. An appreciative culture is forged when an emphasis is placed on the identification and honoring of inherent potential and the uncovering of latent strengths that already exist in the system. This approach contrasts with one which focuses on identification of weaknesses or deficits that precipitate movement and change in the system. People and organizations "do not need to be fixed. They need constant reaffirmation." (Cooperrider, 1990, p. 120)

Paradoxically, at the point that someone is fully appreciated and reaffirmed, they will tend to live up to their newly acclaimed talents and drive, just as they will live down to their depreciated sense of self if constantly criticized and undervalued. Carl Rogers suggested many years ago that people are least likely to change if they are being asked to change and are most likely to change when they have received positive regard—what we would identify as appreciation. It seems that rich, insightful learning can occur in a non-moving subsystem. This might even be the most important learning to take place in a whitewater world—for it is easy to forget where we are right now when we are always looking down the turbulent river at new challenges that await us. We might be able to use what we can now know and engage wisdom that we now have in meeting these awaiting challenges.

*System Four—Chaotic Movement:* Finally, we must prepare for navigation on that part of the river that "makes no sense." This is where things are swirling around in unpredictable manner. It is at the edge between the other three subsystems that movement becomes chaotic. Furthermore, the faster subsystem one is moving the greater is the likelihood that it will break into chaotic movement. A small tree branch falls into the river and the chaotic turbulence increases. A "rogue" event occurs and "all hell breaks out" in an organization.

The temptation when facing with the chaos is to take actions that parallel this chaos. We flail around, striking out in all directions. Moving from one habitual reaction (Kahneman's fast thinking) to another one in our arsenal. Quite the opposite, this is a moment to engage in what Vaill (1996, p. 62) identifies as "creative learning":

Permanent whitewater . . . presents problems that often require us to explore new areas of knowledge and skill that no one else has ever synthesized in quite this way before. . . . In permanent whitewater we frequently feel we are "playing a whole new ball game," "writing the book as we go," "learning as we go."

While Vaill assigns this type of learning more generally to the conditions of whitewater, I would suggest that creative learning is particularly aligned with the chaotic subsystem, for we are more likely to engage strategies we have often used in the other three subsystems. I would also append Vaill's statement by noting that creative learning and successful engagement with chaos requires what Argyris and Schön identify as "second order learning." (Argyris and Schön, 1978) We pause, test out our assumptions (which tend to be quite primitive when confronting chaos), and reflect on what we have done in the past that might make sense now and on what alternative actions might make sense. This is a time for Polystasis. We alter the baseline (our goals, purposes, desired outcomes) based on the emerging predictions regarding what is about to occur in the midst of the chaos. This prediction might initially be flawed. However, with further refinement the predictions can become better, the baseline more realistic and appropriate, and the resulting actions more effective.

Peter Vaill identifies this dynamic process as a form of "expressive learning." This form of learning is about doing things and learning from what we are doing. As Vaill (1996, p. 66) notes:

The only way to get a sense of the activity itself is to do it, however clumsily and haltingly. If we think about anything we personally are quite good at, we will probably discover that we engaged in this expressive, or "performing," quality of learning from very early in our involvement. It was not the elements that grabbed us; it was the whole activity.

Once again, I would suggest that expressive learning often occurs in the more chaotic domains of our life. The chaos resides not only in our sense of awe regarding the actions in which we are about to engage for the first time, but also in the performance of these actions in the real, "messy" world rather than in the tidy world of instructional manuals or theoretical books about management, conflict management, problem-solving and decision-making.

In his analysis of learning in a whitewater environment, Peter Vaill moves beyond expressive learning when he introduces the notion of "action learning." This form of learning is particularly relevant to our confrontation of chaos and to the concept of Polystasis. In offering a description of action learning, Vaill (1996, p. 70) turns to insights offered by R. W. Revans regarding this form of polystatic learning.

A pioneer in this point of view is Revans, with his process of action learning. . . . In the United States, action learning means taking action in an organization, learning from the results and incorporating that learning into further action. (This process is also often called action research.) Revans's idea of action learning is quite different.

Revans and Vaill particularly emphasize the collaborative nature of this form of learning (differentiating it from “action research” which can be engaged in a more isolated setting) (Vaill, 1996, pp. 70-71):

[The goal of action learning] is to create learning teams of working managers to work on real organizational problems and to structure the experience in such a way that both useful solutions to these problems emerge and substantial learning occurs for participants, learning that goes beyond the technical details of the particular problem.

It is in the midst of this action learning process that we see the emergence of Argyris and Schön’s second-order engagement. The learning “goes beyond the technical details of the particular problem.” New insights often emerge regarding how the learning takes place when addressing the chaos. New ways of addressing the chaotic challenge are employed and lessons are learned regarding the relative effectiveness of these new strategies as they might be used when facing other (inevitable) chaotic challenges in the near future.

Vaill and Revans, believe that all of this very important and difficult learning is most likely to succeed in an interpersonal setting where both support and diversity of perspectives are present alongside the polystatic processes of review, adjustment and action (Vaill, 1996, p. 71).

Interpersonal relationship learning occurs through group meetings as participants learn from each other and from those they must consult, historical learning occurs from seeing the problem through time, strategic learning occurs through seeing the problem in relation to broader organizational objectives and processes, and paradigmatic learning occurs through challenging underlying assumptions. In the process, traditional ways of doing things move from being sacred to being problematic; and in general, the whole matrix of policies and practices and ideas within which the problem resides become the objectives of group interaction and mutual learning.

For Vaill, this form of learning (unlike action research) thrives in what William James calls “knowledge of acquaintance” (Vaill, 1996, p. 67). Learning in the midst of chaos is neither abstract nor objectively distant. It occurs in the midst of battle—and with “a little help from [one’s] friends.”

### **Learning Together with Other People**

The interpersonal focus resides at the heart of Peter Vaill’s reflections on learning within a whitewater world. For Vaill ((1996, p. 188), it is critical in a whitewater world to not only be clear about one’s mission and purpose, but also to be inclusive of other people: “the ability to keep members of the organization in touch with each other, to help people feel needed and significant, to combat people’s feeling of being cut off and isolated and the resentment that white water often causes. “ To once again quote R. W. Revans: “, “*real* people learn with and from other *real* people by working together in real time on real problems.” Ceremonial learning is effective because it occurs in a collective setting. ‘Just-in-time’ learning is sustained and reinforced when multiple people are learning at the same time—usually in response to a shared challenge.

*Collective Learning:* Valid and useful learning requires a process of collective learning. We learn together, while navigating the whitewater environment in which mid-21<sup>st</sup> Century organizations operate. Ambiguity can be observed and personally experienced by all members of the organization. There are the distinctive (often cutting edge) lessons learned and insights offered by a variety of individuals, teams and task forces in the organization. In virtually all of these cases, the learning takes place at a second level—unlike what occurs in Models I, II and III. This second level is what Chris Argyris and Don Schön (Argyris and Schön, 1978) have called double-loop learning. Chris Argyris (2001) offers an important distinction between single loop and double loop learning:

. . . learning occurs in two forms: single-loop and double-loop. Single-loop learning asks a one-dimensional question to elicit a one-dimensional answer. My favorite example is a thermostat, which measures ambient temperature against a standard setting and turns the heat source on or off accordingly. The whole transaction is binary.

Double-loop learning takes an additional step or, more often than not, several additional steps. It turns the question back on the questioner. It asks what the media call follow-ups. In the case of the thermostat, for instance, double-loop learning would wonder whether the current setting was actually the most effective temperature at which to keep the room and, if so, whether the present heat source was the most effective means of achieving it. A double-loop process might also ask why the current setting was chosen in the first place. In other words, double-loop learning asks questions not only about objective facts but also about the reasons and motives behind those facts.

The challenge is that the users of information typically want the message they receive to be single loop in nature. They are usually allowed to engage this preference when working and learning in isolation. Unfortunately, a large portion of truly valid and useful information requires that the recipient(s) of this information do something different (double loop) rather than more of the same (single loop). As Argyris and Schön (1974, 1978) have repeatedly shown, this type of learning is difficult to achieve and is often associated with equally-as-challenging double loop change. This level of learning and change often requires broad-based support from and collaboration with other people working in the organization.

This collective support and the shared learning are based on a dynamic associated with organization character and culture. A Learning Organization must be created and sustained. As the name implies, in this organization an emphasis is placed on collective learning. Mistakes will inevitably occur in a VUCA-Plus world. We can't avoid making mistakes. The key goal in a learning organization is to not make the same mistake a second time. We might not be able to live without mistakes—especially if our organization is seeking to be agile and creative. However, we can learn from our mistakes. If we don't then a "stupid" organization has been created. Mistakes are repeated. Nothing is learned from history.

I wish to move beyond Argyris and Schön at this point by taking a more appreciative perspective—which is required for the Lens of Essence to be fully engaged. In a learning organization, we can learn not just from our mistakes but also from our successes. It is not enough to celebrate when we happen to get it right in spite of uncertainty. In addition to celebration, we must reflect on what has occurred that produced successful outcomes. In other words, we should "catch them [us] when they [we] are doing it right!" We need to spend time reflecting on what occurred and what we did that influenced the

desirable outcomes. Kahneman's slow thinking as well as Double loop learning are required whether we are being thoughtful about failures or successes. Those with expertise in appreciative inquiry can be very helpful in this regard (Srivastava, Cooperrider and Associates, 1990; Bergquist, 2003; Cooperrider and Whitney, 2005).

*Collective Intelligence:* There are important collective dynamics associated with the shared framing and reinforcement of distorted insights and false learning that pervade many organizations – especially those faced with the anxiety-provoking challenges of VUCA-Plus ambiguity. Single loop learning or resistance to all learning is prevalent when we are anxious, overwhelmed or simply exhausted. By contrast, there are collective dynamics that operate when an organizational culture of learning has been established. These dynamics are to be found in a learning organization even when VUCA-Plus anxiety is prevalent.

All of this can be brought together in an analysis of what has come to be identified as *Collective Intelligence* (CI). I propose that high levels of CI begin with the collection of valid information from multiple sources using multiple methods. It then requires the collaborative dialogue found in collective learning. Finally, high levels of CI require that the setting in which the intelligence is engaged fully embraces the processes of ongoing learning (Argyris and Schön, 1978) In recent years, the concept of collective intelligence has gained considerable traction. While much of the attention is directed toward the way collective intelligence is enhanced through the use of Artificial Intelligence (AI) and specific digital applications, there is some attention being devoted to the psychological aspects of collective intelligence (Arima, 2021). There are even several research projects demonstrating that performance by a well-functioning team on a specific problem-solving task is often superior to the average performance of team members or even the most “intelligent” member of the team.

We know that for collective intelligence to be successfully engaged—and for it to exist in a learning organization, the team members must be able to communicate effectively with one another. Information silos clearly hinder collective intelligence, while emotional intelligence enhances CI and team performance. Hughes and Terrell (2007). They identify the need for a team to have a sense of purpose, acceptance of one another, perception that the team is a distinct entity, shared commitment, shared pride, clarity about roles and responsibilities and resilience. Collective skills that are related to these ingredients include forming team identity, finding appropriate motivation, emotional awareness, interpersonal communication, tolerance of differing views, resolution of conflicts, and creation of a positive mood. Elsewhere, one of us has offered an appreciative perspective regarding these collective skills, suggesting that an *Empowerment Pyramid* must be created and maintained. Empowerment requires that a team move from effective communication to skillful conflict management, and then on to creative problem solving and appropriate decision making (Bergquist, 2003).

Beyond the ingredients and skills needed for a team to become collectively intelligent and for an organization to be saturated with learning is the creation of a supportive environment. Members or a team and organization must forgo their competitive spirit (at least with one another). A culture of individualism and individual gain must be discouraged. On the positive side is the critical role played by a culture of collaboration. Members of the team and organization must be willing (even eager) to work

with one another. They must find gratification in the relationships established with other team members and enjoy the collegiality that comes with “winning” as a team rather than as an individual. Most importantly, members of the team and organization must appreciate the strengths shown by one another as well as the moments when they are effective at communicating, managing conflict, solving problems and making decisions. These are the key strengths to be found in what I have titled the Empowerment Pyramid (Bergquist, 2003).

*Leader as Learner:* At the heart of the matter regarding collective learning and collective learning is the example set by the leader as a learner. Peter Vaill uses the awkward term “leaderly learning” (Vaill, 1996, p. 127) when labeling the leader’s ongoing process of learning. I would add to what Vaill has offered by suggesting that there is an accompanying multi-tiered impact of the leader’s ongoing learning on the system they are leading. Beyond just being an exemplar, the leader will find ways to improve their own functioning through learning from the feedback offered by those with whom they work. Their own insights gained from learning something new will also contribute to the overall collective learning and intelligence of their system.

To push even further, I would suggest that leaderly learning requires what Otto Scharmer (2019) had identified as “learning into the future.” Scharmer offers a “Theory U” way of thinking about and acting in a world of turbulence. He writes about anticipatory learning. In order to engage in this learning, Scharmer suggests that we must first seek to change the system as it now exists. Scharmer is emulating John Dewey’s suggestion that we only understand something when we give it a kick and observe its reaction. However, Scharmer goes further than Dewey. He suggests that we must examine and often transform our own way of thinking in the world—which requires both balance and agility—if this change is to be effective and if we are to learn from this change in preparation for the future.

From the perspective of whitewater navigation, this would mean that we experiment with different ways of engaging our kayak in our current whitewater world. We particularly try out some changes that might make sense in terms of how the river is likely to operate around the next bend. Will there be more rocks, greater drop in elevation, more bends, etc. We take “notes” on how our kayak is behaving in response to changes in our use of the paddle, our way of sitting in the kayak, etc.

Scharmer requires that we not only try out several ways of kayaking, and take notes on these trials, but also explore and embrace new ways of thinking about the kayak and the dynamic way it operates in the river’s turbulence. These new ways are activated by what we have learned from the current trials. The new ways, in turn, influence other changes we might wish to try out before reaching the next bend in the river. Effective learning, in other words, becomes recursive and directed toward (leaning toward) the future.

*Contingency planning:* An emphasis on learning-into-the-future, demonstrated in the priorities and behavior of a learning-oriented leader, provides the foundation for the way in which we plan for changes in one or more of the four whitewater systems. We look ahead to the bend in the river and consider how we can best prepare for the unknowns to come. The multiple modes of learning that Peter Vaill has introduced must be accompanied by a commitment to agile processes of planning. Alternative

plans (contingencies) must be generated that take into account multiple future conditions that might be confronted on the journey down a whitewater river.

Some of the contingency plans should begin with the assumption that conditions “down-river” are likely to resemble those conditions that are now operating, while other plans should be based on the assumption that conditions will be quite different. In some cases, these conditions will be quite favorable to our navigation of the river, while other conditions to be consider pose a major challenge (they are brand new, highly stressful or impacted by external factors over which we have no control). Typically, at least five contingency plans should be generated at any one time: (1) conditions similar to present time, (2) slightly different but favorable conditions, (3) quite different but favorable conditions, (4) slightly different conditions that are unfavorable, and (5) quite different conditions that are unfavorable.

Contingency planning requires the accompanying engagement of Polystatic processes. Repeated testing, operating, (re)testing and exiting of analyses (T.O.T.E.) regarding the four operating subsystems are required. Baselines must be adjusted, predictions changed, and plans altered. While these alterations might require the creation of entirely new plans, they are more likely to require that we identify (and perhaps adjust) one of the contingency plans that have already been generated. We can, after all, learn from the past (especially plans that have worked in the past), while acknowledging that the future is likely to differ from the past. We appreciate the past while leaning and learning into the future. These are essential features of any Polystatic process that is to be successfully engaged when navigating a whitewater environment.

## Conclusions

When identifying and acting upon that which is Essential, we look for leverage points. We seek to identify those elements in a system that enable the success of other elements. In other words, we view the world as an integrated system with each part of the system interwoven with all of the other parts. When considering that which is Essential, we also pause to gain a clear perspective regarding the world in which we are operating. How do we choose to frame this world and the outcome we desire. Do we view our world and desired outcomes from a distance or up close—from today or from next year. Is the Essential outcome to be considered as a challenging number or as a compelling narrative?

The systems thinking and selection of an appropriate perspective are to take place while we are navigating a turbulent, whitewater river. As Peter Vaill has strongly suggested, these multiple operations on behalf of successful navigation of the river requires that we engage in multiple modes of learning. We learn by viewing what occurs as we take action on the river and by reflecting on what has occurred when we do take action. Our polystatic baseline, predictions and resultant plans and actions change as we think, feel and experience first-hand the life to be led on the turbulent river. It is all very challenging, but also potentially quite gratifying and rich with opportunities for new learning.

And then we hit the contradictions. Our Essential outcomes clash with one another. The actions we taken in navigating the river yield several different lessons—that are often contradictory. We have confronted Contradiction--the sixth condition of VUCA-Plus. It is to this final (and ultimately most challenging) condition of VUCA-Plus that I turn in the next essay regarding the engagement of an Essential lens in the transformation of VUCA-Plus conditions.



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