# Coaching of Anticipation IV: Influencing Polystatic Emotions and Self-Organizing Neurobiological Functions

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Our current understanding and appreciation for human motivation, attention and behavior isn't what it used to be. While for a long time we tended to view human beings as well-oiled machines that sought out a state of rest, we now view human beings as energetic organisms that seek out activity as a way to experience competence and achievement (Maslow, 2014; White, 1959). A primary desire to remain in or return to a state of rest is to be found only among those who are depressed or addicted to some mind and body altering drug. Rest is sought only when we are tired and seek out restoration of energy so that we might once again be active achievers.

We have similarly found that human being normally do not seek return to a state of homeostasis. Rather, as Peter Sterling (2020) has recently proposed, we are constantly shifting the baseline of our desired physiological state based on the changing environment we encounter from moment to moment. I have proposed that Sterling's model of Allostasis can be extended to a model of what I have labeled Polystasis. The polystatic process concerns the shifting way in which we establish a desired psychosocial baseline as we interact with a social environment that is constantly shifting. The polystatic process enables us to constantly adjust our motivation, attention and behavior based on a dynamic

In this set of essays, I have offered yet another way in which human motivation, attention and behavior can be viewed. I have suggested that we operate not in the current state of our environment; rather, we are operating in the environment we anticipate will be present several moments in the future. We live in our near future as vital, competence seeking beings who are constantly adjusting their desired psychosocial baseline in anticipation of an always emerging environment.

I turn first to Emotions and then to the closely related matter of neurobiology and self-organizing systems as they impact the polystatic process of anticipation. Our emotions constitute the element in the "polystatic" process that provides most of the energy and some of the information needed to engage this dynamic, adaptive psychic process.

Having considered some of the operations involved in applying Emotions to the polystatic process of appraisal, adjustment, and action, I turn to the agency of the human psyche that is most closely associated with our Emotions. This agency is our neurobiological system, with its many levels of functioning, and a surprising lack of any central coordinating unit. As a self-organizing, highly adaptive system, our brain and its many adjunct parts provide ample resources for our successful engagement in a complex, feedback-based process of Polystasis (contrasting with the traditional model of homeostasis).

## **Emotions**

I begin this exploration of the third dimension of anticipation by providing another brief case study regarding one of my coaching clients (with certain facts again being altered to preserve anonymity).

My client was the head of the major division of a large law firm. His division had been an independent, very successful firm for many years, but was bought up by a much larger national law firm. He has difficult relations with the head of the large firm and often fiercely defends the remaining independence of his own firm.

He struggles with the "insanity" of his position in the law firm—feeling caught between loyalties to his division and "demanded" loyalties to the firm that owns the business. To find some "sanity", John spends one day each week as a "real" lawyer. He is an internationally-renowned expert in a particular area of the law and finds it gratifying to still make use of this expertise—at least for one day a week. Unfortunately, the one-day-a-week commitment always requires that he spends extra hours at night and on the weekend responding to the demands of his administrative job.

As we talk, my client often looks wistfully at a large picture of a sailboat that he owns, which is hanging on the wall behind his administrative desk. John often speaks about the absence of time for sailing this cherished vessel.

John is married to a woman who holds a very high political position in their community. He talks about the inability of the two of them to go out for a drink at a bar in their community, for fear of what other people will say. The two of them are often invited to public events but must "behave themselves" at these events. John and his wife decided several years ago that they needed to buy a condominium in a city located many miles from their community. They anticipated that an occasional visit to this condo would enable both of them to "loosen up" and enjoy some freedom in their life. Unfortunately, they have found very little time to visit their "sanctuary" since they purchased it. Perhaps, it was a "silly" idea and simply a decision based on exhaustion rather than rationality.

John tells me that he greatly appreciates our sessions, for he has no one else to talk with about the "personal matter" he shared with me. Such matters as the consideration of retirement from his administrative position and fighting for the return of his division to independent status. He can't talk with his wife about potential retirement because this would disrupt everything in their life (her salary as a public official is surprisingly low). He certainly can't talk with other people in his office or with anyone in the main office about his dreams regarding "corporate revolution."

I gently share with John something we know about the psychologically based challenges of leadership. We know that assumptions regarding the motives and abilities of leaders are increasingly devoid of reality, the higher one's position in an organization (Kernberg). As I shall note shortly, this pull toward leadership-based distortions relates to a psychological dynamic called Projection. I also tell John about the loss of freedom that comes with increasing power and authority. I convey an insightful story written by George Orwell (2009). This story concerns the requirement that a British officer in India shoot an Elephant that is doing damage in the village where he serves as an administrator.

Walking down the road to kill the elephant, our officer reflects on his own strong desire not to kill this magnificent beast, as well as the requirement that he engage this regretful act in order to preserve his authority in the village. We pay a great price for our power. John can anticipate that there will be strong negative reactions if he varies his administrative practices very much to make these practices more gratifying for him or make him more successful as an administrator. Even if people around John might wish for these reforms, they are likely to find it hard to make the adjustments. Perhaps "everyone" wants John to change, but "nobody" wants John to change.

Finally, there is the matter of openness and disclosure. I inform John of something that he already knows in his heart. The higher the position and more authority one has in an organization, the less ability one has to share and disclose. I have written a series of essays about treating what Wilhelm Reich (1980/1933) called *Character Armor*. I focus on healing the Wizard of Oz' Tim Man, who exemplifies the rigidity and lack of access to heart that are common about those fortified by character armor (Bergquist, 2023a, 2023b, 2023c, 2023d).

Many people in formal positions of authority (such as police officers, judges, and physicians) wear uniforms not only to project this authority, but also to protect themselves (character armor). We don't know much about these people in uniforms; furthermore, even when a person in authority (who must be "responsible") wears no uniform, they must not say much about themselves or about how they are feeling at any one moment concerning their reactions to the person they are serving.

Psychotherapists, lawyers – and administrators—are to keep their feelings and personal stories to themselves. John acknowledged this restriction when he mentioned that I, as his coach, is the only person he can talk to about what is most deeply bothering him in his role as law firm administrator. John is not alone in this regard. Many professional clients and clients in positions of authority have similarly shared with me that I am the one person with whom they can share their emotions and the basis for these emotions. They anticipate that disclosure at their worksite would be unacceptable.

I recall sitting on the bleachers of a baseball field near the hospital where my client served as director of a specific department. We both looked out at the field and imagined a game being played. My client would slowly reveal some of his deepest concerns, using a baseball metaphor to convey these concerns ("I'm afraid I will strike out.") ("They are going to throw me a curve ball, and I won't be able to hit it."). He was only able to share these concerns by leaving his office, facing out to the baseball field (rather than facing me), and conveying all of his deep concerns in metaphor. Only under these conditions did he feel comfortable with his disclosures. Power and authority certainly come at a big price when it comes to sharing feelings and concerns.

A quite poignant set of observations was shared with John. The higher the position, the more power and the more authority one has, the greater is the possibility that anticipations will be based primarily on emotions, rather than on an accurate appraisal of one's setting. Feedback from other people is likely to be distorted and inappropriately motivated. Rewards anticipated from one's environment are often absent, while unanticipated kickback may frequently occur. As a result, accurate cognition and appropriate behavior are sometimes quite elusive. As a leader, one is likely to rely on Emotions, given the unreliability of either cognition or behavior. This is the opposite of what should be expected from those in a leadership role.

#### **Emotions and the Anchor**

As we bring anticipation into the picture, the concept of *Emotional Anchor* is important. There are points or events in our daily experience that bring us back to a fundamental emotion. In the genre of popular music, this event can be the refrain—the return to the main theme of the piece of music. This refrain typically conveys in song and in lyrics some basic emotion—be it love, longing, sorrow, or regret.

I recently listened to a recording of John Tavener's remarkable work for solo violin, strings and tam tam, called *Mahashakti*. This minimalist piece includes a periodic sounding of the tam-tam (a small metallic instrument that is struck much like a gong). I found my emotions of joy mixed with sorrow coming to the

surface whenever this soft beat occurred in Taverner's work. My emotions were sustained because I was anticipating the gently reverberating sound of the tam-tam.

We find a similar anchoring in our non-musical life. A compliment offered by a customer reminds us of the reason we are performing a particular task. John's large picture of the sailboat that is hung on the wall behind his administrative desk might also serve as an emotional anchor. The picture might remind John of what he is missing in his life and why he needs to periodically review his priorities and baseline.

The clear reminder serves as an anchor for our emotions. It reaffirms our baseline. For Beethoven, it was the anchor of Joy (as represented in Schiller's poem) that kept him moving forward in creating the Ninth Symphony (Sinclair, 2012). For John, it could be his return to "doing law" one day a week. This weekly anchor could remind him of why he entered this field in the first place and why his work as an administrator is critical to the continuation of legal practices in his firm. Emotional anchors clarify and reaffirm our purposes and meaning in life.

The identification of emotional anchors can be of great benefit when we serve as a coach. Offering an appreciative perspective, we can help our client identify those moments and events that elicit deep emotions in them. These moments and events can help our client identify not just their goals and aspirations, but also the baseline(s) that they use when anticipating something in their life. While a psychosocial template can be engaged to assess threat, it can also be used to assess potential pleasure and gratification. Working with a client, we can help them appreciate the emotional anchors in their life and the way(s) in which these anchors can be introduced into their psychosocial template.

For instance, Tavener's Mahashakti (like many of his pieces) is often best heard while in a contemplative state. We can reflect on the complex emotions that the tam-tam sound elicits, and (perhaps with the assistance of a coach) consider how these interwoven emotions appear in our daily life or, especially, in anticipation of an upcoming important event. For me, the intermixing of joy and sorrow relates to my upcoming visit with my brother, who is suffering from dementia. I "know" in my heart (psychosocial template) that my time spent with him will be filled with joy (recalling our many years together), mixed with sorrow (knowing that he can't recall these years). John Taverner's Mahashakti can help me prepare for this upcoming visit.

#### **Polystasis and Depth Psychology**

Clearly, as illustrated in my own experiences of Taverner's Makashaki and Beethoven's engagement of joy in his composition of the Ninth Symphony, our Anticipations are often rooted in our emotions. The question to be posed is: How deep is this rooting, and how pervasive is the influence of emotions on our anticipations? It is tempting to turn first to the "king of emotions"—this being Sigmund Freud. While it is tempting to turn to his concern (even obsession) with the sexual urge as the predominant emotion, I prefer to consider one of Freud's later conceptions (Freud, 1990/1936). It concerns the role of anxiety as an emotion that signals the potential emergence of unconscious content that will be threatening to us if allowed to enter consciousness.

Operating with a strong Victorian attitude (Rieff, 1979), Dr. Freud might suggest that a splash of anxiety across our face moves us to anticipating unacceptable urges that could get us in trouble. We want to "tell off our boss" and experience a bout of anxiety when thinking of engaging in this action. A handsome man is attending the conference where we will be speaking. Relationships with our spouse have been problematic recently. We are at a bar in the hotel, and after a couple of drinks, he suggests

that we follow up with drinks in his room. Anxiety wells up, and our superego takes charge. We decline his offer.

O. Hobart Mowrer (1961), a noted behavioral psychologist, might even chime in at this point. He would suggest that our anxiety arises from our genuine sense of Guilt. Our potential actions are not aligned with deeply held values. We are splashed with a bit of stinging anxiety and decide to return to our own hotel room, call our spouse, and do some more preparation for our upcoming speech.

We could also turn to one of Freud's one-time colleagues, this being Carl Jung. Dr. Jung might enter the conversation about anticipation by agreeing with Dr. Freud that we are strongly influenced when appraising our current setting by unconscious forces. However, these forces arise not from some superego or God-driven condemnation of certain urges; rather, they arise from our feminine (animus) and masculine (anima) attraction to certain "shiny" objects, people, and events (Jung, 2013).

We are animated in our anticipation of something we find attractive, compelling, and exciting. It is a bit like what James Redfield (2018) described in his best-selling book, *The Celestine Prophecy*. I would suggest that something we encounter is "shimmer." Engaging the concept of synchronicity (also explored by Jung), Redfield wrote about the remarkable vibration that comes with encountering and accessing some deep, integrative energy.

At an even deeper level, our anticipations could be directed by the appearance (real or imagined) of strong archetypal images (Jung, 1978). Our handsome gentleman at the bar might be charming, representing a "puer aeternus" (eternal child) archetype. We are enthralled with his wit and sense that anything is possible in life. If a male, our boss might trigger the archetype of a domineering father. If female, our boss might evoke the archetypal image of a malicious witch. None of these archetypal images represent anything like reality; however, each of them can strongly influence our anticipation of upcoming interactions with the person who elicits one of these images.

We might invite one final set of psychoanalysts into our exploration of Emotions and anticipation. These are the so-called "object relations" theorists and therapists who dwell on the way each of us produces certain psychic objects and allows our experience of these objects to influence how we view and act in the world. Turning not to the archetypal images of Carl Jung, but instead to early life experiences (particularly with one's mother), the object relations theorists tend to view relationships with other people that are troubled as subject to such dynamics as *psychic splitting* (this person is either all good or all bad), *projection* (moving part of oneself that is unacceptable or disturbingly powerful to the other person) and/or *containment* (looking for someone who can help contain our anxiety) (Greenberg and Mitchell, 1983).

We can apply our Polystatic perspective to an appreciation of these dynamics. We might suggest, for instance, that our anticipation of impact regarding a potential action is determined by whether or not we think the person we are planning to engage is good or bad. The Osgood semantic differential is in full operation regarding valence! We might instead anticipate that the person we are engaging will react to us in a way that we might if fully aware of our own perspectives and motives. Beyond what Argyris and Schön proposed, the process of projection involves the unconscious generation of assumptions about other people that relate to our own psyche. We don't realize that these assumptions are really all about us—not them!

We can return to the challenges facing John, our legal administrator. As a man in a position of power, he is particularly subject to projections from other people with whom he interacts. These folks will be inclined to project fear of their own power on John—worrying that he might take advantage of them. Alternatively, they split off John and make him all good or all bad, or they look to John to contain all of their anxiety by solving all of their problems, reassure them that everything will work out fine at the office, or simply be that "wonderful" person who will always great them with a caring smile. The splitting of good and bad can lead to a dramatic shift in attitude regarding John if he ends up not be the all-powerful and all-caring leader that they had expected (anticipated) him to be.

# **Neurobiology and Emotions**

In recent years, attention has been directed in the field of neurobiology to processes that closely align with those proposed by psychoanalysts. While the analysts for many years have interwoven their therapy-based observations or (and inferences about) human motives and behavior with speculations regarding the biological origins of these motives and behaviors, it is not until recent years that a neurobiological foundation for their work has been built. Obviously, the neurobiology of Emotions is an area of greatest concern to psychoanalysts; furthermore, this area of neurobiology is closely aligned with our model of Polystasis.

#### **Channel and State**

Specifically, attention has been devoted to a distinction regarding what has been called the "channel" and "state" functions of the human brain (Solms and Turnbull, 2002). Most of our cortical functions are dependent on information derived from external sources. This is particularly the case regarding forebrain (prefrontal) functions. Information from the external world is "channeled":

... the information processed by these [functional] systems comes in discrete bits and is communicated via *distinct and specific pathways* [channels]. Information transmitted is not widely distributed in the brain as a whole but, rather, is targeted with great accuracy to other discrete regions. (Solms and Turnbull, 2020, p. 34)

The "state" functions operate in a completely different manner. They are dependent on internal sources of information:

Here, the means of communication is more gross and involves widespread and global effects that reflect changes in the state of the organism rather than in specific information processing channels. (Solms and Turnbull, 2020, p. 35)

Given this distinction, I suggest that the somatic template and psychosocial template are closely associated with the "state" functions. Furthermore, most of the internal sources of information are likely to be related directly to our Emotional state. Most importantly, just as our polystatic anticipations are holistic rather than focused on a single element in our environment, it is probably required that our primary source of information on which we base these anticipations is general and holistic in nature.

Thus, it is likely that our anticipations and appraisals are closely related to our State operations and deeply invested in our Emotions. "Channel" information certainly provides important cognitive correctives to these Emotion-based anticipations but might not play the primary determining role.

The implications of these findings and speculations are great for those of us engaged in assisting clients with their anticipations. It would seem that Emotions, "gut" feelings (somatic template), and often untested assumptions about our relationships with other people (psychosocial template) are important.

# **Multiple Memory Systems**

I wish to bring into our exploration of anticipation one other finding from the world of neurobiology. We now know that we operate primarily with two memory systems. One of these systems helps us navigate everyday, habitual operations. Often called the *Procedural (Implicit) Memory System)*, this is the cortical function that operates when we are driving a car, hitting a golf ball (if we are a skilled golfer), or simply walking down the stairs (if we are not neuro-damaged). We easily retrieve memories that guide our skillful operations of these procedures. Most of our heuristics (fast thinking solutions) operate out of our procedural brain. Our "knee-jerk" reactions exemplify procedural heuristics.

The second system is usually called the *Episodic or Expository (Explicit) Memory System*. Specific memories of past events, as well as memories of potential problem-solving and decision-making processes, are brought to the fore when dealing with a new, complex, or elusive issue. While procedural memories are usually engaged without any conscious awareness of their application, episodic memories are engaged in a fully conscious manner. As Solms and Turnbull (2002, p. 163) note, these memories are not just stored and retrieved. They are lived! And, as lived memories, they are intrinsically emotional.

Damasio might enter the conversation at this point, suggesting that episodic memories always come with an attached somatic marker. Furthermore, the challenges being faced are inevitably multi-tiered when anticipating a complex event or working in a complex mid-21<sup>st</sup>-century environment (Bergquist, 2025). Multiple issues are nested in one another and often even contradict one another (Bergquist and Mura, 2011). This being the case, one's Emotional state is likely to be equally complex and saturated with contradiction. Under these conditions, a holistic somatic template and broad-based psychosocial template must take the place of a focused somatic marker.

As a coach, we can provide valuable assistance to our clients as they consciously review their psychosocial template (what are you thinking?), and to the extent possible, even their somatic template (what are you feeling?). Most importantly, as Daniel Kahneman (2011) advocates, we must encourage our client to avoid the use of fast-thinking heuristics when addressing multi-tiered issues — as tempting as it is to escape into a rabbit hole of procedural serenity (Bergquist, 2025). As a coach who is focusing on assisting their client to accurately and flexibly anticipate the near-future world they will engage, the advocacy of consistently implemented *Slow Thinking* (Kahneman, 2011), *Reflective Practice* (Schön, 1983), and *Appreciative Perspectives* (Bergquist and Mura, 2011) is critical.

## Socio-neurobiology

As a professional coach, we now have the opportunity to avail ourselves of insights from the emerging field of social neurobiology. In this field, a close (even intimate) relationship exists between our brain and our relationships with other people (Rock and Page, 2009). The amygdala becomes not just the emotional center of the brain, but also its social center, "social issues such as status and belonging being the [issues] being the ones we feel strongest about." (Rock and Page, 2009, p. 426). For those who are working in this field, there is an orientation toward a contextualist perspective on the way our brain and mind operate in a social field (Rock and Page, 2009, p. 426).

Several important points emerge from this contextualist perspective. First, powerful interpersonal relationships produce strong emotional reactions that, in turn, strongly influence the nature and quality of these relationships. For instance, some research findings suggest that both therapist and patient "light up" as lovers when engaged in psychotherapy, whereas the counsellor and client "light up" as friends when engaged in career counseling. Polystasis is alive and well!

Second, the semantic differential categorization that I introduced in the first essay might also be alive and well in our psyche when we are anticipating what is about to occur. Our amygdala might be sorting out the threatening and non-threatening elements to anticipate in our immediate environment. In our role as coach, we can be of great value in helping our client identify their own Amygdala-driven anticipations and finding ways to address these strong anticipations.

Linda Brothers (2001) has taken the social neurobiological perspective a step further, suggesting that we create reality in our relationship with other people and that our mind is actually embedded in a collective enterprise with the people with whom we relate. Much as Harry Stack Sullivan (1953) suggested that our personality is dependent on our relationship with another specific person (rather than being an enduring, unchanging character trait), our mind, according to Brothers, is dependent on interpersonal context. We think in connection with other people, much as we create our values and guide our behavior in connection with other people (Gilligan, 1982; Gilligan, 2023).

If Brothers is correct, then, as noted by Rock and Page (2009, p. 15), "a coaching mind-set represents a shift from an individualistic to a contextual and social understanding that supports social cognitive neuroscience." Brothers' findings also suggest that both the emotional and cognitive elements of the anticipation process are critical—and that both are strongly dependent on the specific relationship in which we are engaged with other people.

Even when anticipating an event or anticipating a relationship without the engagement of other people, we are likely to be projecting specific attributes on this event or relationship. We create reality on behalf of emotions and thoughts that exist in our own mind, and the projected emotions and thoughts to be found in the projected mind we have created.

Without the input of other people, our near future is an "ink blot" that we choose to "interpret" on behalf of our own hopes, fears, and needs. We refuse to live in the present and are determined to anticipate the near future, even if this means fabricating elements of this future in our own mind. As a coach, we can become that connecting mind that alleviates the need for a fabricated and projection-based mind. This might, quite simply, be the primary function we serve as a professional coach. Rock and Page, 2009, p. 428).

# The Neurobiology of Polystasis

The recent upsurge of findings from the field of neurobiology provides us not only with new insights in the Emotional element of the polystatic anticipation process, but also with insights regarding other important aspects of the polystatic process. Several years ago, I joined with my colleague, Linda Page, to identify some of the important findings from neurobiology that hold implications for professional coaches. In each instance, findings hold implications for our understanding of Polystasis. I combine and sort through the list Linda Page prepared, add other findings to the list, and offer in each instance some of the polystatic implications and implications for professional coaching.

#### **Procedural Memory**

Habitual behavior requires the shifting of knowledge and skill sets from focused, intentional and explicit (conscious) memory systems to another memory system located in a different part of the brain. As I have already noted, this system is often considered our "procedural" memory. This second memory system is holistic, much less accessible to intention. It is implicit (unconscious) in nature. We are likely to find that the psychosocial template is composed primarily of procedural memories. The template contains untested assumptions about what people in general believe and want, as well as a wealth of often-distorted past experiences regarding relative success or failure in working with other people.

When coaches try to "break up" the habitual behavior of their clients, they may be trying to move stored material between two different memory systems. Resistance to the disruption of habitual behavior and the challenging of existing psychosocial template may be based not only on our fear of changing established behavior patterns, but also on the profoundly difficult task of moving stored memories back from the implicit system to the explicit system where these memories were first formed.

#### **Neural Networks**

Our social/psychological constructs (paradigms, schemata, left-column beliefs and assumptions) may be much more deeply embedded in and reinforced by and through complex, highly redundant and multiple-level neural connections and networks than we had previously thought to be the case. While our psychosocial template will shift a bit from moment to moment, given new information arriving from the changing environment and feedback we receive from actions we have taken in this environment, there is an underlying set of neural networks that are much less likely to be modified by any one change in our environment. While Polystasis speaks to our capacity to be flexible and adaptive (the accommodating aspects of our learning process), the constructs contained in our neural networks speak to our desire for stability and continuity (the assimilating aspects of our learning process).

To examine (let alone attempt to "break up") these constructs as a coach working with clients may be quite difficult. The outcomes of such a disruption may be difficult to predict. What does this mean for the coach who is encouraging her client to see things "in a different way"? First, it means that there is likely to be some initial resistance. This is not a "bad" sign; rather, it is a sign that this "different way" is being taken seriously by her client.

Second, the coach might want to consider a "different way" of presenting the "different way." For example, the coach might want to couch what they say in a metaphor or analogy (Bergquist, 2021): "it is as if you were . . ." Third, the coach might use the resistance as an opportunity to assist her client is exploring his cluster of assumptions that are motivating the resistance: "let's spend a few minutes exploring the source of your resistance." This approach only works if the coach is not herself being resistant to her client's resistance. This can be a "learn-able" moment for the client and can actually yield greater benefit for the client than is any adoption of the coach's way of seeing things.

## **Amygdala Templates**

We immediately process all (or most) incoming stimuli through "templates" in our Amygdala (midbrain). We process these same stimuli through our cerebral cortex at a later point (1 or 2 seconds later) and more slowly. In most cases, we eventually temper the immediate reactions of our Amygdala by means of this more "rational" cortical analysis. The Amygdala "templates" are applied to each incoming stimulus to determine whether or not this stimulus represents a threat to us (or perhaps an opportunity for personal pleasure). I have proposed that Charles Osgood's Semantic Differential (Osgood, 1957) provides the major criteria for determining threat: good/bad, active/passive, and strong/weak. Many of these Amygdala templates are probably established early in our life or may actually be "hard-wired." We might even find the appearance of Carl Jung's archetypes (Jung, 1978).

I would suggest that the amygdala plays an important role not only in the assessment of possible threat but also in the anticipation of pleasure. We look forward to a pleasant interaction with a specific person based on past experiences with this person and input from our psychosocial template. A shot of dopamine might accompany this anticipation—just as it does when the addicted gambler enters the casino or when our lover removes their clothes (or our clothes). There might be no more powerful engagement of the polystatic process than in the anticipation of threat or pleasure. If Carl Jung is correct, this power might often relate not only to the squirt of a feel-good neurochemical but also to the triggering of a deeply held and fundamental archetype related to an evil figure or force, or to a benevolent, seductive and pleasure-evoking siren.

What occurs when a coach is working with her client on difficult issues that may evoke fear-based templates? How does a coach either bypass or counter the emotional impact of these templates? First, I would advise the coach to be thoughtful, caring and patient. Once a threat template is activated, it can be engaged indiscriminately to include the coach himself. Second, the coach should "appreciate" the fear manifest by his client. "I can certainly appreciate why you might feel anxious at this point, for there are several good reasons to worry about what might occur." The coach can then articulate some of the "good reasons."

The coach, at this point, not only is being empathetic; she also is being a bit rational and objective regarding their client's fears. At this point, the client can themselves become a bit more rational and objective. As a coach, I often increase the "objectivity" by listing the "good reasons" on a flip chart or at least on a piece of paper. It is then possible to identify some of the "good reasons" not to be quite so fearful and some "good ideas" regarding how best to address these fears. What actions can be taken that reduces the sense of helplessness and hopelessness that often accompanies the activation of the amygdala's fear-based template.

Third, it is important to recall that the role of a coach does not include exploring the initial source of any emotion. The coach is not a therapist! She is not in the business of somehow "correcting" the emotion; rather, she is in the business of helping her client manage the emotion as it has been elicited in the

present situation. This "at-the-moment" managing of emotions can be just as beneficial as an in-depth analysis of the emotions' etiology.

#### **Stress Ruts**

We establish "stress ruts" when exposed repeatedly to real or imagined threats. These ruts are grooved deeper with each stressful event and lead to permanent structural changes in our nervous/hormonal systems. We become increasingly vulnerable ("trigger happy") to stress. "Trigger-happy" somatic templates dominate the polystatic process. Anticipatory reactions are warped and focused on events and people out in the world who can justify our emotional reactions: "That damned Gregory always gets on my nerves!" "I know that this meeting would be a complete waste of my time!" Most importantly, we must acknowledge that stress-ruts do not go away over time. Permanent links are established between our prefrontal cortex and our limbic system. We must avoid establishing these strong links rather than assuming that these links will go away or that some drug (alcohol, tobacco, tranquilizer) will provide a stress-related roadblock.

How might a coach assist her client in identifying and even seeking to avoid or reduce the impact of these stress ruts? First, the coach can encourage his client to reduce the number of stress-producing events in her life. Obviously, this is not a simple assignment. The stress is often associated with a client's job. As a coach, one can at least suggest that a client set aside their work when at home, take more frequent vacations, or plan for more "coffee breaks" (preferably drinking something other than heavily caffeinated coffee).

It is important to keep in mind the possibility that one's client might be addicted to the "high" that comes from successfully confronting a stressful event—or even (like the gambler) anticipating this success. When addicted to one's own adrenaline, there is a painful process of withdrawal that can be just as severe as that experienced by someone withdrawing from alcohol or an opiate. The withdrawal from one's own adrenaline will often be manifested as depression or unregulated anger toward other people or toward one's job. As a coach, we can assist our client in anticipating that this withdrawal can occur when they reduce their exposure to stressful situation. It is not unusual, for instance, for an "addicted" workaholic to experience depression rather than relief when finally taking a vacation or spending a weekend with their kids.

Second, as a coach we can encourage our client to engage in activities that help to "burn off" the neurochemicals that have been activated by the stress. Physical exercise is often the best vehicle for this "burn off." Third, there are activities to be engaged that reduce stress impact more gently. These include medication and other forms of mindfulness, as well as a stroll through the park with a dear friend or spending time playing with one's own child or a grandchild.

A fourth coaching approach involves some life planning. "Perhaps you need to find another job." "Perhaps you should consider retiring at this point in your life." At an even more basic level, this life planning can involve identification of personal values and life purposes, that are then weighted against

the health-related costs associated with ongoing encounters with stressful events: "You want to serve other people, but can't do so if you are always on edge or if you are no longer healthy enough to provide this service." "You claim to be placing your family at the top of the list; yet you are always too stressed out at the end of a long workday to spend much time with members of your family."

#### **Physiological Preparation**

Our daily behavior is profoundly impacted by our patterns/decisions regarding sleep, exercise, exposure to light, and the consumption of alcohol, tobacco and other mind-altering drugs (including caffeine). We not only create stress-ruts in our life but also alter our polystatic anticipations. From a polystatic perspective, we are likely to find that the anticipation of events in our immediate future is saturated with emotions if we are "hyped" up with a strong dose of caffeinated coffee or if we have not slept soundly for several days.

Emotions will overwhelm the cognitive appraisal required to thoughtfully anticipate what is about to happen or the effect our behavior is about to have on the person we are meeting. Our amygdala rules when we are intoxicated. We will focus on meeting our addictive needs when we are entrapped by alcohol or even tobacco. Other features of our environment, such as care for other people or job performance, are set aside and we anticipate only how our body is about to feel when we are without a drink or cigarette. It may be hard to assist other people until they are "physiologically primed" or prepared for this assistance. If we are "trigger-happy" then we are likely to find it hard to address anxiety-provoking issues in our life. It will be difficult to concentrate on a difficult issue if we continue to focus on meeting an addictive need.

Should a coach insist that her client be physiologically prepared for the challenges of coaching prior to beginning the coaching process? My colleague, John Preston, a seasoned psychotherapist and best-selling author, has suggested that therapist should insist that their clients moderate their caffeine intake before engaging in any psychotherapeutic engagements.

Building on an inventory prepared by John Preston, I have published an inventory for calculating one's caffeine intake that can be given to one' coaching clients as they begin their work (Bergquist, 2020). A high score on this inventory suggests that one of the first steps to be taken in the coaching engagement concerns lowering of this score. Our polystatic anticipations and bodily reactions to what we anticipate will be skewed if the caffeine score remains high.

## **Intimacy and Friendships**

Apparently, the neurochemistry associated with the formation of intimate relationships is quite different from the neurochemistry associated with the formation of friendships. In both cases, powerful, chemically based bonds are formed. These bonds are reinforced whenever our intimate or friend appears before us – our body literally "lights up" with neuro-chemical responses – but quite different when the other person is considered a friend rather than an intimate.

Apparently, the neuro-chemical reactions of a patient in psychotherapy (especially when it is long-term and depth oriented) more closely resemble that of an intimate relationship than that of a friendship—and these neurochemicals are released in both the patient and therapist. The processes called "transference" and "countertransference" may be something more than the replication of patterns and images from previous intimate relationships (including parents). These processes may involve the release of neurochemicals that are the same as those released in our intimate relationships.

From a polystatic perspective, it is as if we are playing a trick on our body when we enter into a psychotherapeutic relationship. We begin to "believe" that this is an intimate relationship (transference) and anticipate that romance is soon to ensue. Our body prepares for this romantic encounter believing what our brain has indicated is about to occur. Conversely, the anticipation in a counselling relationship is that this will more closely resemble a friendship than an intimate relationship. Our body prepares for the friendship, preparing much as it does when we meet with a colleague for lunch.

What about the coaching relationship? Is it more like a friendship than an intimate relationship? What if coaching, like therapy, releases neurochemicals that replicate intimate relationships? What are implications for the profession of coaching? I have already mentioned that we must remind ourselves as professional coaches that we are not psychotherapist; yet our neurobiological system might be declaring that we are doing therapy and are "in love" with our client. Boundaries are suddenly important.

Even if we aren't "in love" with our client (and they aren't "in love" with us), there is still the pull toward gaining a strong emotional "hit" from our client. For instance, we now know that the simple act of giving advice will often give us a hit of dopamine. While our client might be reflecting on our advice in a detached and rational manner, this advice is having a much less detached and rational impact on us when we deliver it. We must be reflective of our own coaching practices (Schön, 1983) and continually determine the real reason while we are often specific services (advice) to our client.

#### **Taking Action**

Emotions not only provide us with feelings about the world in which we live, they also provide us with the "get-up-and-go" that we need when getting out of bed in the morning or taking decisive action regarding a pressing matter at our worksite. Apparently, one of the most difficult things for human beings to do (with regard to neuro-processing) is to move from thought to action. A large portion of our brain "lights up" when we make the decision to do something (what in the old days we would call "will power.")

These are also the areas of the brain that are often impacted by clinical depression. The sense of hopelessness and helplessness that was first articulated by Martin Seligman (1992) aligns with the inability for us to assemble all the parts of our brain needed to move to action. Bringing in the somatic markers of Antonio Damasio (2005), we might speculate that these markers are the points where the many necessary parts of the brain come together when pushing us out of bed or moving us to action regarding that critical decision.

I also suspect from a polystatic perspective that the assemblage of multiple part of the brain to produce action is often (if not always) experienced as an anticipatory emotion (such as "looking forward" to breakfast or to receiving praise for taking "courageous" action.) It would seem, given these neuroscience findings, that some of the most difficult (and perhaps most important) work that coaches do is assist their clients in moving from thought to action—in helping them "fire up" these multiple portions of their brain.

#### **Mirror Neurons**

Another major finding that may hold major implications for the field of professional coaching concerns the apparent presence of mirror neurons in our neurophysiological system. In a series of controversial research projects and articles, it has been proposed that certain neurons will fire when a person is observing someone else doing a task and these neurons tend to mimic the neuronal firings of the person being observed. Thus, when we watch someone performing a physical act, mirror neurons will fire that mimic the neuronal firings in the person being observed.

Some of these mirror neurons seem to teach us how to carry out actions by simulating an observed action and creating a neural template/map for how it's done. But much more than this, many scientists believe that mirror neurons help us develop our "theory of mind" regarding other people. This is a theory we develop over time during our youth that enables us to understand the intentions behind the action of others, and possibly the social meaning of their behaviors and emotions. As Rock and Page (Rock and Page, 2009, p. 431) speculate:

Might the firing of neurons when observing the intentional actions of others account for our capacity for empathy and our ability to develop a theory of mind? It does appear that we grasp the experience of others through direct experiences of ourselves, through sensing, not thinking. When someone is feeling sad, we know so partly because we also feel sad.

Furthermore, many scientists believe that the evolution of our mirror neurons probably facilitated the evolution of language and simultaneously the evolution of culture. Perhaps, the polystatic capacity to anticipate how another person might wish to know what we are thinking and feeling provides the incentive for inventing a way (language) to let them know what we are thinking and feeling. Even more broadly, we might want to ensure that the nuances of what we are thinking and feeling have been effectively conveyed and even that the communication of these thoughts and feelings is sustained beyond the one engagement with another person. We create works of art to ensure and sustain the nuances. Cultural artifacts are produced because we anticipate that other people are just as hungry for full appreciation of other people's ideas and emotional states as we are.

Art, music, literature, theater, poetry and architecture are not products of an isolated mind and heart. They are created on behalf of a belief that other people care as much as we do about full appreciation for one another and for the culture we have created. Our mirror neurons may be activating our appreciation of other people and the culture we have created together because we have observed other

people appreciating one another and the artistic productions of our culture. It is possible that we will come to appreciate that painting in our national museum because we witness other people appreciating it. Perhaps, we are "charged up" by a powerful speech being delivered by a charismatic speaker in part because we witness other people being "charged up" (whether this speech was delivered by Adolph Hitler at a Nuremberg rally or Martin Luther King on the steps of the Lincoln Memorial).

From a polystatic perspective, our baseline regarding the value of a work of art might be adjusted as we adjust our anticipation of appreciation for this painting or sculpture based on our observation of other people's appreciation for this painting or sculpture. Our psychosocial template(s) devoted to culture might be altered based in part on the reactions of other people to specific cultural artifacts. Our mirror neurons associated with enjoyment and gratification might be activated as we watch other people look intently at the Van Gogh paintings in the Chicago Art Museum or grasp their sense of awe first viewing the Winged Victory of Samothrace at the Louve in Paris. We are collectively enthralled by a great work of art. Mirror neurons may play an important role in determining what we anticipate when using language to interact with another person or when anticipating our reactions to a great (or not so great) work of art.

Beyond the matter of language and art, mirror neurons influence the fundamental way in which we feel about and interact with other people. Specifically, there are many implications for professional coaching regarding the social neurobiology of mirror neurons. What do mirror neurons have to do with the formation of empathy (both in the client and coach)? To what extent does an effective coach "understand" her client in part because some of her own neurons are firing in ways that mirror the experiences and actions of her client?

Are there ways in which effective coaches help a client acquire a new skill set by observing other people (and even the coach herself) provide leadership, solve problems, make decisions, etc.—and is this skill set acquisition based at least in part on the activation of mirror neurons in the client? We do not yet have clear answers to these questions; however, we can anticipate that the answers to be found in this domain of social neurobiology will provide us with new insights and valuable guidance in our work with clients.

# Polystasis as a Self-Organizing System

As we expand on the model of polystasis, it is important to remind ourselves that our brain has no central operating system. Like many complex and dynamic biological systems, our brain is a "self-organizing system" that is lead not by some leading part but rather from the interactions between parts of the system that exist side-by-side (the "neighborhood effect"). Just as a flock of birds or swarm of fish move in a remarkably coordinated manner as a result of each bird's or fish's immediate reaction to the bird or fish right next to them, so we find that human systems also move in a remarkably powerful and coordinated manner because each participant in this system tends to immediately react to the movement of the person next to them.

We can observe this often graceful "swarming" of human beings in their secular movement through an airport terminal or in the sacred circumambulatory movement of Islamic worshippers seven times around the Kaaba in Mecca during the celebration of Hajj. These movements, whether sacred or secular, are self-organizing. As those who engage in something called "agent-based modeling" (Wilensky and Rand, 2015) have noted, no choreographer or dictator is coordinating this movement. Each person ("agent') is navigating in coordination with those agents who are moving (or living) next to them.

# **Emergence**

Furthermore, it seems that surprising reconfigurations of a system often occur as this self-organizing system becomes more complex (often when an additional element is added to the system). Called Emergence, this reconfiguration is represented in the simple (but surprising) emergence of water from the combination of two gases (hydrogen and oxygen), as well as in the profound reconfiguration of various lifeless chemicals, some hot water and other yet-unknown elements to produce something that we call life.

Rock and Page offer the following summary of this radical emergent reconfiguration of complex systems (Rock and Page, pg. 78):

Emergence is possible because agents in complex systems effectively organize themselves rather than being controlled by some central authority. An example is our immune system, which consists of agents throughout our body that identify, communicate about, and respond to threats to our physical dynamic stability.

The discovery of self-organizing behavior seems to contradict the Second Law of Thermodynamics, which says that systems tend toward disorder, or entropy. . . . A self-organizing system can readily respond to its environment, adapting if possible. According to complexity theorists, this adaptation generally leads to increased complexity in the system.

An important point is being offered here by Rock and Page. It is not only that complex systems tend to be self-organizing (the "neighborhood effect") and adaptive, but also that the adaptivity of a system tends to increase its complexity.

#### Tagging, internal models and building blocks

Rock and Page (Rock and Page, 2009, p. 79) turn to the writing of John Holland in identifying the key characteristics of self-organizing system:

- Tagging—recognizing, naming, or labeling entities. . .
- Internal models—simplified representations of the environment. . . .
- Building blocks—components that can be recombined to make new components . . .

I propose that Polystasis operates as a self-organizing system and that Emotions provide the tagging function that enables us to quickly anticipate that something is about to be good or bad, strong or weak, or active or passive (Osgood's sematic categories). Our somatic and psychosocial templates provide us with internal models that help guide our actions in response to environmental conditions, while our

dynamic polystatic-based feedback process enables us to quickly and frequently recombing the components based on altering baselines and shifting anticipations.

#### Co-Evolution

Rock and Page (Rock and Page, 2009, p. 79) identify another important feature of complex, self-organizing systems. They co-Evolve with other systems that they encounter:

Open systems not only adapt to the environment, they also influence the environment by importing and exporting across the system boundary. The environment is changed as a result, and so it also evolves over time as the systems within it evolve.

In the world of Polystasis, this co-evolution dynamic would play out in shifts regarding our anticipation of features in the environment we encounter from moment-to-moment. Our interactions with this environment bring about changes in this environment, resulting in modifications of our anticipations regarding this environment. At times, this co-evolution can lead to what I have identified as self-fulfilling prophecies, with changes in the environment being created by our anticipated vision of this environment. We anticipate "hell," prepare for 'Hell" and create "hell" through our actions. Conversely, we anticipate "heaven," prepare for "heaven" and create "heaven" through our actions.

More often, the self-fulfilling prophecy is not dominating our actions and reactions. Rather, we are attuned to a world "out there" that is operating independent of our anticipations. As a professional coach, we can be of great value in this regard when working with a client who is deeply, emotionally attached to a specific version of their world, and to specific outcomes. We can help them discern what is a world of their own making and what is a world to which they adapt (as a self-organizing system) — and about which they learn for the future.

#### **Self-Referencing**

There is one other theme associated with self-organizing systems that Rock and Page introduce (borrowing from the work of Margaret Wheatley). This theme concerns self-referencing. It plays a central role in any human self-organizing system (Rock and Page, 2009, p. 85):

Self-reference is a concept from complexity theory that has particular relevance to leadership. Wheatley suggests that if a leader can identify a core of values and vision, and can refresh this core through dialogue, she or he can reference this in order to maintain personal integrity through difficult times. . . . The principle of self-reference applies also at the organizational level, especially during turbulence. A strong corporate identity can provide independence from environmental change and can serve as a guide to the organization's evolution. When the environment demands a new response, there is a reference point for change.

This use of self-referencing as a way to guide organizational evolution relates directly to the polystatic concept of varying baselines. Anticipation always requires that what is expected in the immediate future is tested against the established baseline. We are frequently altering the baseline as we appraise the shifting environment in which we are operating. This feedback-based process of appraisal and adjustment is self-referencing and, as Wheatley suggests, is often engaged at an organization level by the organization's leadership.

In alignment with Rock, Page and Wheatley, I would propose that self-referencing and a reliance on self-correcting baselines is critical to the enduring life of any human system. As Rock and Page (Rock and Page, 2009, p. 85) propose:

A well-developed organizational identity includes a strong sense of purpose. When they have a purpose to refer to, staff members are able to work more independently and effectively.

# **Collective and personal baseline elements**

Embedded in this proposal is an assumption that self-referencing at the broad organizational level enables those working within the system to engage in their own self-directed, polystatic adjustment to the changing environment in which they are operating. Having incorporated the organization's own baseline within their personal baselines, those helping to move an organization forward will be guided by goals and purposes that are shared by all (or at least most) members of the organization.

As a professional coach, we can be particularly effective if we help our clients discern the various levels of their polystatic baseline. Which elements of this baseline come from the sharing of purpose and goals with other members of the organization and which elements are held at a more personal (or team) level. Having discerned these different elements, our clients will become more discerning of the different sources of environmental feedback that will (and should) influence their baseline. Some of the environmental changes impact the collective elements of the baseline—elements such as bottom line, productivity and organization-wide morale. Other changes in the environment produce an impact that hits at more personal elements—elements such as level of personal performance, relationships with co-workers, and personal motivation.

We are likely to find that distal shifts in collective baseline elements are infrequent given the complex, often turbulent (and even contradictory) way an environment operates at contemporary organizational levels (Bergquist, 2025). Forces in one direction are muting forces operating in a different direction—leading to a standoff. Much more frequent shifts are likely to take place at the proximal, personal level as our emotional reactions to ongoing organizational events require adjustments in our polystatic baseline.

Thus, in many complex organizational settings we are likely to retain a "hybrid" baseline that is always both changing and remaining surprisingly stable. As a thoughtful and effective coach, it is often of great value for us to help our client identify and learn how to 'live with" hybrid baselines that may lead us to contradictory anticipations: "everything is changing and nothing has really changed!"

#### **Attention Density**

The self-referencing process serves one other important function in the creation and maintenance of a self-organizing system. When we have gained a clear sense of both personal and collective purpose,

then we have a better sense of what we should focus on in our often-complex environment. In appraising the probably shifts in our immediate environment when determining what to anticipate, it is clear that we can't focus on everything. We have to be selective in our attention to this environment. This focused attention, in turn, not only influences how we manage our baseline and adjust our anticipations, it also alters the fundamental operations of our brain from moment to moment.

We return to Peter Sterling's basic description of the allostatic process (Sterling, 2020) from which I derived the polystatic process. As Sterling notes, our brain impacts our body and our body, in turn, influences our brain. Rock and Page take it one step further. They propose that our brain assembles information from multiple sources in varying ways when it is specifically attending to one aspect of the environment rather than another aspect. Specifically, selective attention alters the composition of neurological operations in our brain in ways that are congruent with that to which we attend (Rock and Page, 2009, p. 181:

Attention density is the quantity and quality of attention paid to a particular circuit consisting of connections among neurons in the brain. . . . Our brains structure information as mental maps, or circuits, for every word, picture, experience or concept for which we have any associations. One word or idea may trigger responses in visual, emotional, kinesthetic, auditory, or, memory, and language centers.

If we could somehow record the attention density process at any one moment and play it back in slow motion, we would find that information from the environment is being assessed to determine if this environment has shifted in some way from what it was a moment before. If a shift has occurred then the "new" environment is compared to internal information (words, pictures, experiences, concepts) that is organized and presented in part as the psychosocial template and as the self-referencing polystatic baseline.

A quick appraisal is made regarding the extent to which anticipation of what is to occur next in the environment needs to be altered. This very quick process, as Rock and Page note, occurs in a specific neural circuit or tight cluster of neurons in our brain. As they also noted, this circuit may involve centers throughout our neural system. The speed as well as density of this attentive process is exceptional. It is repeated many times at each stage of feedback-based Polystasis. Multiple adjustments and actions follow the initial appraisal.

As a professional coach, we can assist our client in determining where they want to focus their attention. Attention density impacts the way in which we are integrating and "making sense of" those aspects of the environment to which we are attending. We see the world differently depending on the density and varied internal and external properties incorporated in our attention.

What we attend to influences (and often determines) our anticipation of what is about to happen in our world. That to which we attend also influences (and often determines) what action, if any, that we take in this world. We attend, anticipate, feel and act into our immediate future. This is what it means to "learn into our immediate future." And what it means to "learn into our near future." This concept of attention density also holds major implications for how we lead into the more distant future.

Given this preliminary description of the neurobiology of Polystasis and anticipation, we bid farewell to our coaching client, leaving them emersed in high density attention to the task of anticipating what is about to occur in their challenging life of leaning, learning and leading into the future. . .

# **Conclusions**

With the exploration of cognitive and behavioral elements of the polystatic process in the third essay, and the exploration of the emotional element and accompanying self-organizing neurobiological processes in this fourth essay, I am ready to conclude my initial perspectives on Polystasis as related to the psychology of anticipation. However, I recognize that the preliminary perspectives I have offered regarding Polystasis and the psychology of anticipation are still ill-formed and lacking in the precision that a theory or model acquires after many years of articulation, amendment and application. Still, I hope you find what I have offered to be of value when engaging professional coaching with clients who face the daunting prospect of leaning, learning – and leading—into the near future.

I anticipate that not all of what I have said in these four essays has been clearly shown to yield either insight or application for you as a professional coach. In an attempt to increase the value of my four-part series for you, I have added a fifth essay which (to borrow a musical term) I consider a "Coda" to the main work I have done in presenting the polystatic perspective and offering a psychology of anticipation.

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