Whole Brain Leadership for Creating Resonant Multidisciplinary Health Care Teams

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The culture of health care creates important challenges for health care professionals. In particular, we work in a culture that is (1) hierarchical, (2) competitive, and (3) perfectionistic. Unfortunately, the consequence of acquiescing to those demands is contrary to promoting Resonant teamwork, and it is important for leaders of multidisciplinary teams to understand how to create environments that flatten the hierarchy (by encouraging all members of the team to contribute; and to genuinely seek the wisdom and knowledge of their colleagues), that encourage collaboration and cooperation (emphasizing collective wins and losses both for the immediate team as well as for all of us, as a profession), and that invites excellence (which is a process) versus expectation of perfection (which is an unrealistic outcome).

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An expanding body of information links leadership to a combination of operational and relational skills [1–3]. Beliefs about brain function would generally attribute task-oriented focus to left-brain function and relationship-oriented focus to right-brain function. Of interest, this dichotomy has been alluded to in health care as the difference between mechanical (predictable, linear) systems versus complex adaptive (unpredictable, nonlinear) systems [4]. In mechanical systems, behavior (and expected outcomes) conforms to reproducible patterns and emergent (innovative or individualized) behavior is discouraged [5]. For example, a ventilator is a mechanical system and if it does not perform according to its settings, a repair person is called to interrogate, judge, and fix the system. Complex adaptive systems are unpredictable, and emergent (creative and unique) behaviors can be embraced with curiosity and enthusiasm. In complex adaptive systems, differences are explored to be understood and connected (joined). A growing body of literature on leadership records a variety of leadership traits such as those listed in Table 1. These leadership traits can be reorganized (Table 2) to better demonstrate the importance of what we refer to as Whole Brain Leadership. To develop and promote this kind of leadership thinking, this article outlines a few concepts that promote development of our model of Whole Brain Leadership.

Integration

We define integration as the linkage of differentiated parts. That is essentially what great leaders do—they link differentiated parts. Integration is a delicate and dynamic process. Dan Siegel describes an integrated state as FACES (Flexible, Adaptive, Coherent, Energized, and Stable). Coherence is in itself an acronym for (Connected, Open, Harmonious, Engaged, Receptive, Emergent [creative], Noetic [inviting spontaneity and newness], Compassionate, Empathic) [6]—and all of these are important characteristics for a Whole Brain Leader. With the use of this concept of integration, it is helpful to think of integration as the flowing of a river. Integrated states (FACES) are found in the middle of the river. On one riverbank is rigidity (linkage without differentiation) and on the other is chaos (differentiation without linkage). In rigid systems, there is no allowance for or acceptance of individual differences. A mechanical system is rigid. It is predictable and linear. Protocols and checklists can be rigid, and there is a space for them in all health care practices. Protocols and checklists prevent errors of omission, but they will not prevent errors of commission, such as technical errors or errors of judgment. Protocols and checklists create conformity for tasks that lend themselves to conformity, but they do not necessarily create safety (for instance, if the system is so rigid that no one is allowed to speak up to challenge a protocol, even when they see something that concerns them or when they have an emergent idea that might be better, because it challenges a well-engrained protocol—then the system becomes less flexible, adaptive, and safe). Making one-size-fit-all and abolishing the unique and variable experiences and abilities of the differentiated members of a group creates potential for rigidity and ironically leads to the outcomes that the organization most likely fears—mediocrity, failure, lack of innovative spark, loss of job satisfaction, and a disengaged workforce. However, in chaotic systems, there is no conformity. Differentiation abounds and there is nothing linking the group—no

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common behavior norms, no shared beliefs, and no support of an identified leader. Chaotic systems can be rich with ideas and energy, but without linkage through integrated leadership, there is no way to harness this collective wisdom, and this gives more understandable meaning to the eventual outcome for these teams, which is dis-integration.

Avoid Dissonance; Invite Resonance

To describe Whole Brain Leadership in practical terms, we like to imagine that Whole Brain Leaders are integrating three primary elements: Self, Others, and Context [7, 8]. The challenges we face on teams generally revolve around these three entities.

Self

What are my needs? What are my beliefs? What are my values, what is meaningful to me? What are my commitments? What are my authentic strengths? What are my fears, and do I have enough self-awareness and courage to be able to acknowledge them and the tools and resources to manage them? What are my biases? Can I access any potential unconscious biases? Self-awareness is the first element for emotional intelligence [9] and Whole Brain Leaders practice emotional intelligence.

Others

Whole Brain Leadership is relational leadership and requires the ability and willingness to value others. Resonant, Whole Brain Leaders understand that just like themselves, all individuals in the system have needs, perceptions, knowledge, and commitments. Whole Brain Leaders create Resonance by making it apparent to team members that their individual and collective needs, values, opinions, ideas, and information are also respected and considered as important. This ability to develop genuine caring and understanding for the members of the team is considered by many to be the keystone for successful leadership [9, 10], and it is an essential cultivator for Resonance within the system. Whole Brain Leaders genuinely care, and they also care in general, meaning that they understand the power of story. Everyone in the system has a story, and when we can know the story, then the system and how people are behaving or what they are wanting makes more sense. A powerful example of caring in general was created by the Cleveland Clinic Foundation in their video on empathy [11].

Context

Context is the patient, the situation, the reason for us working together, the ever present need that drives our health care world. Health care Context is huge and, just like each of us, has needs that must be acknowledged and valued. Teamwork would be difficult enough if it simply required us getting along with each other—it becomes daunting when we have to do this in the shadow of urgent, life-threatening, win, or lose situations that challenge all that we might know and be capable of doing.

Table 1. Qualities Attributed to Leadership Skill

Leadership Traits
Ability to be logical and realistic
Big picture orientation
Relationship-focused
Strategic/aware of past history
Detailed
Values facts as information
Imaginative/creative
Process oriented
Invites possibilities/divergent thinking
Intuitive
Task focused—outcomes oriented
Value measurements, numbers graphs and spreadsheets
Values stories as information
Good with concepts
Analytical
Convergent thinking—find best solution

Add to that challenge the perceived need for perfection, and we invite the perfect storm.

Whole Brain Leaders create Resonance by understanding that rigid adherence to certain styles might fail to integrate the competing needs of Self, Others, and Context and over time will lead to Dissonance within a system. When there is Dissonance, there is lack of positive energy, and members of these teams describe their working environment as “sucking the energy from me,” “oppressive,” “it feels unsafe,” “there is no point to me being here because no one cares what I think,” “I just show up and do what I’m told” (which is symptomatic of a system that has disregarded someone’s potential for unique contribution), “I’m looking for another job somewhere” (I’m checking out), or “I just come to work to make money so I can have a life outside of here” (I’ve checked out). Any of these and other comments that we have collected and reported are all indicative that the system (team) is Dissonant [12]. We have identified seven behaviors that we have observed in health care professionals that are Dissonant styles when used exclusively

Table 2. Leadership Qualities Reorganized Into Whole Brain Capacity

Left Brain	Right Brain
Ability to be logical and realistic	Invites possibilities/ divergent thinking
Detailed	Big picture orientation
Task focused—outcomes oriented	Relationship focused
Values facts as information	Values stories as information
Convergent thinking—find best solution	Intuitive
Value measurements, numbers, graphs, and spreadsheets	Good with concepts
Strategic/aware of past history	Imaginative/creative
Analytical	Process oriented

and exhaustively over time. Each of these behaviors shares lack of integration of Self, Others, and Context. They are briefly described in the sections below.

Dissonant Styles in Which the Leader Fails to Integrate Others as Valuable Contributors to the Team

COMMANDING. These leaders are driven to be in charge and lack curiosity to explore, value, or validate (by accepting influence) the experiences of others. They commonly blame others or circumstances when things go wrong, have difficulty accepting any accountability, and exhibit little capacity for listening, asking, inquiring. They already know. Commanding leaders simply say: "Do it because I say so." The Federal Aviation Administration created cockpit resource management to counteract the potential damage that can be done by a commanding leader who is unable or unwilling to access the ideas, opinions, or information from others [13]. Likewise, Karl Weick [14] has written about how High Consequence Organizations can become High Reliability Organizations by flattening the hierarchy to protect against commanding leaders when there are unexpected and potentially catastrophic events. In Weick's model, the most valuable person on a team, at any moment in time, is the person with the most important and relevant information. It is the role of the leader to access that information, wherever and in whomever it resides. An example of a commanding leader is nicely demonstrated in this video [15].

PACESETTING. This Dissonant style is especially prevalent on cardiac teams when perfection is often the goal [9]. Ironically, many people who have trained in medicine have been taught that "If you want a job done right, do it yourself." That is pacesetting. (Actually, if you want a job done your way, do it yourself; if you want it done right, then it can be done by many people and their right way may look different and often unique and innovative). Pacesetters demand perfection (meaning the outcome must be precisely their way), and it is often simply not possible to satisfy them, so team members stop trying (and this leads to the experience of being no longer valuable to the team because one's opinions, knowledge, experience, or ideas are not welcomed). Ironically, pacesetters often become blamers when, despite their best intentions, things do (as they ultimately can in the complex and unpredictable world of cardiac care) fail. Pacesetting can be insidious. Although pacesetting might be manifested by open disregard for the ideas of others, it can also be conveyed by the leader who simply comes along and undoes whatever the team has already been performing to accomplish a task. See if you can recognize the pacesetting in this video [16].

MANIPULATING. Manipulation creates mistrust. Leaders who manipulate are typically unable or unwilling to communicate their needs. They frequently abuse their position of authority to pressure people into giving in to what they, the leader, wants. A leader can gain insight that they are possibly being motivated to manipulate when they approach a dialog, conflict, or problem with a predetermined conclusion in mind about what they want, and plan strategies to get those needs met without directly expressing them or exploring the perspectives of others. Manipulators are master strategists, and they are often fairly remorseless about the impact of their actions on others. The end justifies their means. They are primarily driven to get their needs met without engaging in direct and open communication and thus are rarely transparent [17].

Dissonant Style in Which the Leader Fails to Integrate Self as Valuable Contributor to the Team

PLACATING. Placaters are driven by the need to be liked and to make people on the team happy. Ironically, they generally fail at both. They become non-trusted because they do not commit to consistently expressed values. Instead, they seem to be constantly influenced by the last person who has talked with them. They can be paralyzed from making critical decisions because they are constantly worried about how they might be perceived or judged by others, particularly if they fail. Placaters invite chaos because rather than know how to link the diverse perspective of team members, they give into the constant demands of unending differentiation in the system. Unfortunately, our health care culture risks the development of placating as a cultural norm as we are constantly reminded to put the needs of others before our own [18]. In fact, the Accreditation Council for Graduate Medical Education (ACGME) definition of professionalism uses those precise words as an example of what professionalism requires. The conundrum is that we are all human and we also have needs. Whereas commanding, pacesetting, and manipulating styles eradicate Others, placating eradicates the Self; therefore, it is simply not sustainable. In our work with (and in our own development as) leaders, this insatiable need to please others has created a common challenge, and the solution is to gently reacquaint ourselves with our humanness, the validity of our needs (values, opinions, knowledge, and skills), and some tools for integrating ourselves into a culture that has normalized disregard of the Self. Your team needs you and all the unique and extraordinary features that an authentic you can bring to the team [19].

Dissonant Style in Which the Leader Emphasizes Context and Fails to Integrate Self and Others as Valuable Components to the Team

SUPER REASONABLE. We have observed this style most frequently when we have measured Dissonant styles in medical systems. It seems to be the most convenient style that satisfies the need for our systems to be predictable and reproducible—mechanical. Mechanical focus works for mechanical systems (ventilators, heart lung machines, elevators, airplanes) that can be interrogated (inspected) and fixed. Human systems are complex adaptive, and the beauty of complex adaptive systems is that they express emergent (innovative) and unique behaviors that are not always predictable. None of us wants to be fixed. We would rather be explored and understood. Super reasonable Dissonance treats people like robots [20], and a machine cannot give you what a person can. When

leaders treat people like machines, they essentially are devaluing and dismissing the importance of our human factor. In the super reasonable style of Dissonance, the only thing that is important is the Context. Context is ubiquitous. There is always a sick patient, an article that needs to be written, a lecture to prepare, teaching rounds to attend, a meeting for making an important decision … always something to occupy us and distract us from our humanness. Super reasonable drives disconnection. The syndrome of physician burnout includes depersonalization, which is a measured consequence of our medical education process. (We have reported a progressive increase in depersonalization across 4 years of medical school education for one group of students at a nationally recognized medical school [21]. The class cohort shows an increase of depersonalization from approximately 10% of students at the beginning of medical school—during orientation—to approximately 45% of students at the completion of 4 years of medical school. From this one medical school, almost half the graduating physicians are depersonalized at the time they begin their medical residency training!) Depersonalized physicians have just as many needs as they had before they became depersonalized—they are simply less aware of and less compassionate toward these needs that are perceived as human and therefore unimportant. Ultimately, they begin to treat all people in the system (including their patients) as they have learned to treat themselves—as objects that need to be dealt with. Depersonalized (super reasonable) systems are subject to an 11-fold increase in medical errors, as well as to unprofessional and immoral acts, in addition to ultimate disengagement from people who want more for their lives than burnout. Systems with depersonalized leaders feel oppressive and dehumanized. They are driven to achieve perfection (which is not possible) and deny the human need to struggle and fail as a requisite to learning. It is not possible to exist in them over the long haul, and they exhibit frequent turnover or disintegration.

Dissonant Styles in Which the Leader Fails to Integrate Self, Others, and Context—A Totally Chaotic and Differentiated Team That Has No Linkage

IRRELEVANT. Irrelevance occurs when people become overwhelmed and are no longer capable of accessing their own needs or being available to the needs of Others or the Context. Irrelevance is non-attuned leadership and it fails to connect. The members of the team become discouraged that their leader is not available to connect with them around their concerns and instead is a distracting presence (talking about other, less relevant issues, or making jokes) when they need to have focus. Irrelevance might seem funny and creative to the leader, but they are unattuned to the present-moment needs of Self, Others, and Context.

INVISIBLE. Invisible leaders are not present for their leadership moments. This is nicely described by Sidney Dekker in his work on *Just Culture* [22], and the members of these teams can become secondary victims of unexpected or untoward events. There are times when the team needs a leader to step up and take accountability for the team or to make a critical decision or to simply be the leader. Invisible leaders tend to hide at these times in the hope that the moment will pass (unnoticed) or that they might escape unscathed.

All of the above-mentioned styles are Dissonant when they are used exclusively, over time, as the most predictable response by the leader to a problem. Each of us has access to these styles and, when integrated into a complete repertoire of response, can create a more vibrant ability to adapt and perform effectively. These styles actually exist on a continuum or spectrum of strengths. When the strengths are overdone, they can lead to Dissonance, but a strength used appropriately can be a powerful tool or style. In Table 3, we indicate how the style might look along this spectrum, with the strength overdone being represented as the Dissonant style and the strength being used when needed and at appropriate times representing the more Resonant version.

Whole Brain Leaders create Resonance through their ability to integrate the various and changing needs of Self, Others, and Context into a dynamic and stable system. They access a wide range of possibilities that include tasks that need to be accomplished, problems that need to be solved, and the needs of the people in the system that need to be valued. An example of this is nicely portrayed in the story of a young surgeon on vacation with his wife published many years ago when the ACGME first introduced their duty hour restriction, and we recommend reading it now that you can integrate the information above into your understanding of the story [7].

Avoid the Four Destroyers of Resonant Teamwork

Several decades ago, a researcher in Seattle began to investigate how couples managed conflict and how their relationship styles were connected with the ultimate fate of their marriage. John Gottman, a research psychologist, believed that he could find logical explanations for how relationships thrived or disintegrated. His early book, *Why Marriages Succeed or Fail* [23], was seminal work and interestingly has relevance to teams that take care of critically ill patients when the word *teams* is inserted in place of the word *marriages.* Gottman's work (based on extensive quantitative and qualitative research) became nationally prominent when it was recognized that he could watch a couple in conflict for about 2 minutes and then predict (with more than 90% accuracy over 15-year follow-up) whether the couple would stay married or end up divorced! His work has influenced our own work with Resonance in medical teams and the development of our model of Whole Brain Leadership. Gottman described four conditions that eroded relationships; we believe his findings are relevant for team relationships. Whole Brain Leaders need to be aware of these four destructive influences and be acquainted with the antidotes for them. We briefly describe them in the sections below.

Table 3. Beneficial Leadership Traits When Strengths Are Used Appropriately

Strength Overdone Dissonant Version	Strength Used Appropriately Resonant Version
Commanding	Assertiveness
Pacesetting	Competence
Manipulating	Strategic
Placating	Genuine caring
Super reasonable	Logical
Irrelevant	Creative and fun
Invisible	Self-protective

Criticism

Criticism is highly toxic poison and it is ubiquitous on medical teams. Criticism is personal and it is designed to identify and blame a culprit. When we criticize or chastise someone for making a mistake, we invite them to experience fear, anger, or shame. Criticism is destructive, and it generally makes everyone on a team feel demoralized and afraid that either they may be next to be criticized or to feel bad for their colleague and teammate who is the recipient of the criticism. Criticism rarely creates problem solving. The antidote for criticism is complaint. A complaint is not personal and it invites all team members to engage in problem solving. Problems do not have names—they are gender neutral. Imagine the difference between criticism and complaint as if the problem is represented as a soccer ball. Criticism is like putting the soccer ball inside someone and then kicking them around. A complaint is like putting the soccer ball on the floor and letting everyone kick it around. The problem is not "why do *you* keep trying to kill all my patients with your poor management?" (personal; ouch!). The problem is: "*We* keep struggling with our attempts at early extubation. What kinds of things can *we* try and do differently?"

Contempt

Of the four destroyers, contempt may be the most destructive. Contempt does not necessarily require words—contempt can be conveyed by an expression (such as a slight tilt of the head and a rolling of the eyes). Contempt is a total annihilation of an other and minimizing their importance to the team. Whole Brain Leaders develop antennae for contempt, and they do everything they can to prevent it. The antidote for contempt is appreciation for what others know and can bring to the system. It has been written that great leadership requires great followership—meaning there are times to stop pacesetting and commanding and let another team member do what they do best. Pacesetting is a subtle form of contempt because pacesetters have a belief that there is only one way to do a job—their way. When contempt is expressed openly as disdain for the abilities of someone in the system, the system will need intervention to heal or it will polarize and disintegrate.

Defensiveness

Defensiveness is the flip side of blame. It is in effect the same as saying: "I didn't do it. She did it." Defensiveness is often found in systems in which the leader has allowed punishment and criticism to exist, so defensiveness is expressed as a way to avoid these consequences. The antidote to defensiveness is self-accountability. Next time you have a quality improvement conference (morbidity and mortality conference) and a difficult outcome is being examined, try going around the room and, instead of assigning blame, have each team member courageously take accountability for some piece of the outcome. What would each member have done differently, in retrospect? Have each team member imagine something they might wish they could have done now that they know what happened. This creates a culture that reinforces our connectedness and dependence on one another.

Flooding

Flooding refers to emotional overload. When we get flooded, we simply want to withdraw, shut down, and not address the moment—stonewall. This can leave others on the team feeling abandoned, unheard, or ignored. When I (R.M.U.) finish a challenging operation and return to my office, I am sometimes flooded. If my administrative assistant bombards me with a lot of requests—phone calls to return, tasks that need attention, etc—I just want to ignore them. She might take this personally, when actually, the person with the immediate need is me! So, I have told my assistant that when I come back from the operating room and close the door to my office—it has nothing to do with her—I simply need time to re-center myself so that I am ready to be available. The antidote for flooding is self-soothing that can simply be acknowledging as a leader that people have needs (including the leader) to center and reconnect to their internal resources so that they can move on to the next demand. We have described internal resources in previous publications [19], and they can serve as a useful source for resilience and integration.

Accept Influence

In an interview with *Harvard Business Review*, Gottman described the ability to accept influence as one of the most important elements for creating healthy relationships [24]. We have found this to be especially effective for medical teams. Accepting influence invites all the members of the team to be engaged, feel valued, and participate. By nature, leaders who accept influence have found a way to abolish contempt because they create joy and resourcefulness for their team as well as a culture that promotes learning, growth, and change [5]. Accepting influence is a cultural change as much as it is a leadership tool. Imagine that in your organization, you have a saltshaker full of "yes" crystals that you can sprinkle around liberally: "Yes, that is a good idea. Let's try it." "Yes, please keep calling me when you have concerns." "Yes, that would be great if you would present that information at our next conference." "Yes, I

appreciate your thoughts on this." Yes creates a different culture (and feeling in our bodies) than the more typical "no" culture in which the saltshaker sprinkles around: "No, we don't do things that way around here." "No, when I want your opinion, I'll ask for it." "No, that is not something we're going to try." "No, I don't want your help." "No, I don't really care what you think." Which culture would feel more attractive to you? Furthermore, when we hear or experience a sense of "no," it often invites implicit memories of not getting our needs met. Consistent "no" might lead members of a team to give up and stop trying because trying will only bring on another "no." Leaders who emphasize accepting influence can do this in numerous ways—allowing others in the system to make suggestions and then trying those suggestions, even (especially) when they are different than the cultural norm. This indicates to the team members that change is valued and ideas are respected. Accepting influence is a powerful tool for a leader to introduce into the system—it gives permission for people to speak up, without fear of being ridiculed, ignored, or dismissed, and it allows the system to be greater than the limitations of any one person. Whole Brain Leaders accept influence because they genuinely value the perspectives of others and they make their teams powerful as a result.

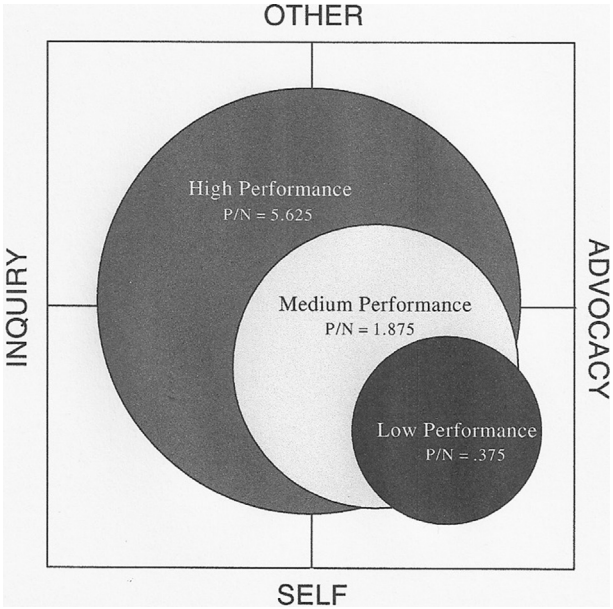

Fig 1. Emotional space projected over Inquiry/Advocacy and Other/Self. (P/N = positive versus negative.) (Reprinted from Losade and Heaphy [25] with permission of SAGE Publications, Inc.)

Be Ratio-Minded

In an elegant investigation on the role of positivity and connectivity for business teams, Losade and Heaphy [25], from the University of Michigan School of Business, described the interrelationship between a variety of variables as they related to quality of performance. Connectivity (an essential trait for Whole Brain Leaders) became a control variable that was linked to various ratios that were associated with whether the teams performed at a high, medium, or low level. A depiction of their findings is displayed in Figure 1.

What is remarkable about their findings is that the increasing ratio of positive to negative emotions (often referred to as essential for high performance) is interrelated to the ratio of other-focus versus self-focus and to the ratio of inquiry (curiosity about the perspectives of others) versus advocacy (fixed commitment to one's own perspective). The remarkable association of these three ratios to performance is displayed in Table 4 [25, 26].

The ratio and importance of positive to negative has long been emphasized by some organizations as crucial to high performance. What is more difficult to understand is that the relationship between positive and negative is complex. Members on some teams have told us that it is easier to feel positive when things are going well, and that therefore this ratio is really the result of how well the team is performing, not the other way around. However, the research of Losade and Heaphy [25], as well as research by Gottman [23, 27], Fredrickson [28–30], and others, has demonstrated that it is actually the ability to create a culture of positivity that far exceeds negativity that leads to the better outcomes. Think of how the constant encouragement by nurturing parents likely helped you learn to walk, even after you experienced repeated failures. The reality is that team performance is related to the positive versus negative (P/N) ratio, not the other way around. The actual desired ratio varies from 3:1 (Fredrickson) to 5:1 (Gottman) to Losade and Heaphy's 5.6:1, likely depending on the type of team and what is being measured. However, three things are important to take away from this research. First is the power of negativity. It takes much more positive to overcome the negative to produce high performance. Second is the absolute necessity for negativity to be present. Negative experience (expressed as complaint, not as contempt or criticism) is important to acknowledge in a system. Without the negative there is a risk of false harmony [31], and this would ultimately eradicate any credibility to positivity. Finally, from the work of Losade and Heaphy [25] is the critical interdependence of P/N with other versus self and inquiry versus advocacy. P/N increases as the axis moves to the upper left quadrants (other and inquiry) and away from the lower right quadrant (self and advocacy) (Fig 1). High performance is a complex result of tools that Whole Brain Leaders can use to create more space for the perspectives

Table 4. Team Function Ratios

Ratio	High	Medium	Low
P/N	5.6:1	1.8:1	1:20
I/A	1:1	2:3	1:3
O/S	1:1	2:3	1:30

Data were derived from Losade and Heaphy [25] and Whitney and colleagues [26].

I/A = inquiry versus advocacy; O/S = other versus self; P/N = positive versus negative.

of others (versus only considering their own self-perspective to have merit) as well as inquiring (with curious exploration, as one would for complex adaptive systems) to learn more about how to incorporate the opinions, perspectives, and knowledge of others rather than constantly advocating their own beliefs (and limiting the team to only what they know or believe).

Awareness of the impact of positivity, inquiry, and valuing the experience of Others is a key ingredient for developing team Resonance versus Dissonance. There are numerous techniques that leaders who are aware of these ratios can use to improve performance of their teams (which can be taught and easily learned through education from coaches or consultants knowledgeable with this work).

Teams have an emotional culture that Whole Brain Leaders are attentive to [32]. Emotional culture influences employee satisfaction, burnout, teamwork, and even hard measures such as financial performance and absenteeism. Positive emotions are consistently associated with better performance, quality, and customer service. Negative emotions such as group anger, sadness, fear, and the like usually lead to negative outcomes, including poor performance and high turnover [32]. We are all greatly influenced by what is happening around us through our mirror neurons [33]. Our ability to attune to the energy in our environment is what has helped to keep us safe through evolution. Notice your ability to be aware. When you walk into a room, notice the energy in that room—is it safe, or tense, or joyful? Whole Brain Leaders remain attuned to and understand the importance of emotions such as joy, happiness, anger, fear, and sadness. These emotions become a valuable dipstick for team performance for leaders who are able to cultivate access to them.

Commitment and Repair

No matter where you work and what team you work with, the very nature of delivering care to critically ill patients is hard, unpredictable, and fraught with challenge. Plans do not always work out the way we hope, the team may encounter clusters of bad outcomes, or fractures in relationships from disagreements. The major difference between Resonant versus Dissonant teams is that Resonant teams find a way to work through these difficulties as a natural part of being in relationship. Whole Brain Leaders lead by reminding team members of this primary importance of relationships and in supporting the need by team members to feel understood, valued, and cared about. Members of Resonant teams know—they have trust—that no matter what, their team will stand by them. Team members remain committed to the team and to each other, even when (especially when) times are challenging. Whole Brain Leaders look at problems as opportunities to learn, and they explore perspectives with curiosity, openness, and compassion (for Self and for Others as learners). Research on relationships has emphasized the importance of commitment [34, 35], and teams are complex, adaptive relationships. Unfortunately, when caught up in the amygdala hijacking of intense difficulties, people tend to revert to some of their more primitive survival styles (exhibiting their strengths as overused) such as those outlined as Dissonant styles earlier in this article.

Whole Brain Leaders first need to recognize within himself or herself which of these coping styles they are most likely to adopt and notice that when they are beginning to use this style, it is an indicator that they, too, are feeling stressed. It is a very useful early warning sign. They may also recognize certain coping styles in members of the team and know that those team members are likewise feeling stressed. These stress stances can now be named (what we name we tame) and acknowledged—not as something wrong with people, but rather as indicators that these team members feel stressed or anxious and in need of support. Tools for managing these situations are abundant and can be cultivated by Whole Brain Leaders who appreciate the reality that their teams are comprised of people and that people have needs and emotions—people are not machines and cannot be managed like a mechanical system.

Among the tools that we have found helpful is to solve the moment, not the problem. It is often likely that the problem is bigger than the moment and will require an energized, engaged, and fully resourced team to be curious and open to potential solutions. The moment is more manageable and can be addressed with dialog that simply acknowledges that the team members each have an opinion, one that makes perfect sense to them, when considered from their perspective.

As an example, do you see any way that the following equation (in Roman numerals) can be true?

$$\mathrm{I} + \mathrm{XI} = \mathrm{X}$$

A Whole Brain Leader might be curious to understand more about how someone might see this as valid. By exploring to understand (rather than interrogate, criticize, and judge) their perspective (in this case, simply turn the page around to view from a different perspective), the opinions of another might make perfect sense.

Important research indicates that a mindset that values asking (with curiosity to genuinely try and understand) and learning (with a spirit of self-compassion, courage, and humility) will likely correlate with greater success over time than a mindset committed to telling (coercing), knowing (attachment to being the expert), and self-aggrandizement (as a way to enhance self-esteem). We cannot learn if we already know, and if we are committed to always knowing, then it is unlikely that we will be receptive to accepting the influence necessary to receive new information or adopt new techniques in our ever-changing profession. Learning takes courage and resilience as we make peace with the vulnerability of struggling or failing on the avenue to growth. Whole Brain Leaders encourage a learning mindset by modeling a willingness to not know, to ask, and to nurture the growth of new ways of thinking or doing [36–42].

One way to dialog is to learn techniques from a variety of courses designed to create more attuned and

productive communication. These techniques can transform the way members of a team converse with one another around difficult situations. Some of these methods are taught in workshops on Non-Violent Communication, Crucial Conversations, TeamSTEPPS, Cockpit Resource Management (Lifewings), and Satir Systems Training, to name a few [43–45]. Regardless of which ones the team chooses, going through these trainings together (and not simply having a leader, or as we have often observed, a disruptive individual attend) is a group growing and learning process that can help create a shared team language. Regardless of which skills the team chooses to learn, the foundational tool to implement is genuine caring and compassion for each member of the team [46, 47]. Without this level of caring, tools are simply techniques that have no magic or soul.

Many problems that occur in our profession are unavoidable—patients bring us incredible challenges and not all of these challenges are surmountable. All our team members come from differing backgrounds (cultural, family, and professional training). As leaders, we can help our team understand this and celebrate the opportunity that arises from differences. Virginia Satir eloquently stated, "It is in our sameness that we connect and it is in our differences that we grow" [48]. We can begin to see our organizations, not as problems to be solved, but rather as mysteries to be explored. We can learn to invite curiosity about the many factors that contribute to a failure, as opposed to automatically blaming someone or something. Experiencing a bad outcome, does not mean we are bad health care providers. Commitment is expressed by the vow to remain supportive and together: "Through better and through worse, through sickness and in health, through morbidity and mortality…."

The other important element in supporting a culture of trust and safety is relationship repair. All of us will make errors or contribute to bad outcomes in some human way. In contemporary vernacular, this is often referred to as human factor error. There is substantial research that when errors occur, relationships can be ruptured. High-performing teams, as indicated above, require healthy, working relationships, and ignoring the importance of this can ultimately contribute to poor team performance. In some organizations that we have observed, the solution to ruptures is to implore people to just try and get along and get over it. Unfortunately, research indicates that this is some of the worst advice that a leader can provide—it does not invite conflict resolution and creates stranger or withdrawal cycles, in which team members lose trust and no longer share important information with one another. Stranger relationships are doomed to fail—and these teams will dis-integrate and underperform. The solution is to create friendship or empathic cycle relationships, and this requires genuine attempts at caring enough about the relationship that a repair attempt is offered—which can be a genuine apology with an admission of accountability and even an acknowledgement that the other person's perspective had merit. Even more important is the healing power created when the recipient of the repair attempt embraces the repair (with heartfelt appreciation for the courage and vulnerability that might have been required by the sender to offer it). Usually, no one feels worse about an error than the one who committed it. The literature on second victims is poignant and powerful [22, 49–51], and Whole Brain Leaders are attuned to the need for team members to find ways to heal themselves and to feel forgiven—not just by the leader or other team members—but to find some way (sometimes with coaching or counseling) to grant themselves both the courage and permission to forgive themselves—to learn and remember. Whole Brain Leaders help each team member embrace the learning journey with courage and compassion (for Self and Others) as the only path to excellence and as an essential ingredient for safety, trust, and Resonance.

Promote Work–Life Balance

Many of us trained in a time of relentless emphasis on work. It still is commonplace to attend a medical meeting and have a colleague ask: "Are you busy?" We rarely respond by saying, "No, I'm trying to spend more time with my family." It is a cultural value in our profession to be busy. How often do you think of taking a day off to spend doing something unrelated to work? And when you do, how do you feel about it? Guilty? Refreshed? Embarrassed or ashamed? Secretive? Just notice. Whole Brain Leadership requires the ability to access emotions (both attuning to one's own emotions as well as to the emotions of the team—mindsight) and to value them as important and meaningful. A younger generation is arriving at our workplace—physicians and other health care professionals who may not share our cultural value of "busyness" as the proper spelling of our "business." Leadership for the future will likely need to find a way to tap into flexible, adaptive, coherent, energized, and stable ways to link this cohort's emerging culture with our goals for our teams. Ample research documents that work and life cannot be balanced, but they can be integrated through choice into a life that is intentional, rewarding, and perfectly suited to how we want our individual lives to be lived [21, 39, 52]. Leaders for the next generation of health care, particularly in the high-stakes, high-stress environment of managing patients with critical heart or lung disease, will be obligated to emphasize ways to integrate work with life in some non-formulaic, individualized manner that attunes to the three elements that demand our attention mentioned at the beginning of this article: Self, Others, and Context. All three are valuable, important, and irrepressible. Honoring the needs of each creates balance, harmony, and integration. Ignoring any to the repeated exclusion of one over the others will create dis-ease and dis-integration. Whole Brain Leadership is a learning process that begins with cultivation of the Self, appreciation for Others, and remarkable diligent attentiveness to Context.

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