

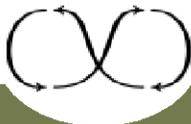
# Unsolvable Problems and the Role of Polarity Thinking in Schools

 POLARITY PARTNERSHIPS  
*Transformation and Continuity for Individuals, Organizations and the Planet*

**Show-Me Conference**  
March 5-7, 2017  
Tan-Tar-A, Osage Beach, Mo.

**Jay Roth**  
[JRoth@lebanon.k12.mo.us](mailto:JRoth@lebanon.k12.mo.us)  
[@cognitivecoachj](#)

Director of Curriculum & Instruction  
Lebanon R-III Schools



# Outcomes



- Understanding of **what polarities are, why they are important, and how they influence perceptions** in the school organization
- **Develop a Polarity Map to explore relationships and tensions** among competing values
- ~~Recognize a process to learn **how to leverage polarities** (time permitting)~~



# Differing "Truths"



- ▣ **Good things come to those who wait.**
- ▣ **The squeaky wheel gets the grease.**
- ▣ **If you want something done right, do it yourself.**

1. Knowledge is power.
2. Strike while the iron is hot.
3. There's no time like the present.
4. Haste makes waste.
5. Nothing ventured, nothing gained.
6. The pen is mightier than the sword.
7. Absence makes the heart grow fonder.
8. Look before you leap.

- ▣ **The early bird catches the worm.**
- ▣ **Silence is golden.**
- ▣ **Two heads are better than one.**



## Introduction to Polarities

Polarities are chronic, ongoing tensions between two paradoxically correct viewpoints. These dilemmas are inherent in individuals, in groups, in organizations (such as schools), and in society. The strain that comes from the shifting energy in a polarity system is *unavoidable, unstoppable, and unsolvable*. The polarity system must be tapped as a resource by using “both/and” thinking over a traditional “either/or” problem-solving approach of choosing one viewpoint - a pole - as the solution to the competing viewpoint.

Polarity Thinking is a construct that describes a set of principles and tools for recognizing, predicting, and leveraging polarities in work and in life.

Some examples of polarities in life include the competing truths of both:

- taking care of self and taking care of others
- freedom and equality
- home commitments and work commitments
- head (rational thinking) and heart (intuition)
- justice and mercy
- structure and flexibility

For leaders, some polarities to pay attention to are the values of both:

- candor and diplomacy
- confidence and humility
- leading and listening
- tight and loose (DuFour & Eaker, 1998)
- directive leadership and shared leadership
- grounded and visionary

Some specific organizational polarities include the need to focus on both:

- centralized coordination and decentralized buildings / initiatives
- school and community
- mission and margin(money)
- results focus and people focus (human capital)
- preserve the core and stimulate progress (Collins & Porras, 2005)
- technical change and adaptive change (Heifitz & Linsky, 2002)

A point about how polarities work. The shorter the cycle in alternating between the competing poles, the more obvious you are in a polarity: focusing on both home commitments and work commitments happens in 24 hour cycles during the work week. A person cannot select one focus and neglect the other completely during a workday.

When the cycle time is long and the downside of over-focusing on a single pole of a polarity emerges, the alternative pole is seen as a solution. For example, it's easy for organizations to see centralized coordination as the solution to the problem of organizational silos. It might take years before the Centralization “solution” is itself experienced as a “problem;” it was a “fix that failed” and is labeled a “mistake.” It wasn't a mistake nor was it a solution to begin with. This is the classic “swing of the pendulum” as the efforts move from Centralization to Decentralization and back again.



## IN EDUCATION

In the field of education, John Dewey, in the 20<sup>th</sup> century, noted a paradoxical tension in the preparation of teachers: that of “proper relationship” of subject matter and that of pedagogical method. Boaler (2000) questions, “To what extent does learning to teach rely on subject matter knowledge? To what extent does it rely on the development of pedagogical methods?” The seminal meta-analyses research by John Hattie (2009) has shown, “teacher subject matter” alone has a minimal effect size (0.09) on student achievement, suggesting that this singular focus is insufficient.

Recognizing that effective teaching depends on both content knowledge and pedagogical techniques acknowledges a polarity – a system of often-competing values that **cannot exist alone** to successfully achieve a common purpose, such as effective classroom instruction.

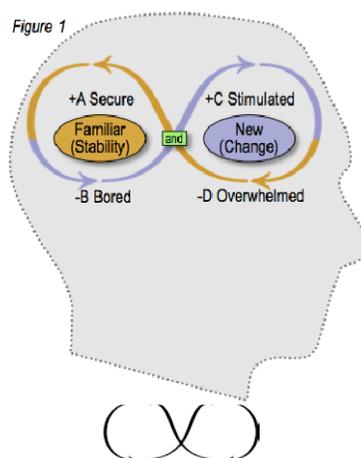
Some additional educational examples of polarities include the importance of both:

- teacher autonomy and team collaboration
- horizontal team planning and vertical team planning
- general education for all and special education for some
- curriculum (preparing to do the work) and instruction (doing the work)
- student learning and teacher learning

Classroom polarities that arise for educators are the need to attend to both:

- teacher use of formative assessment and student use of formative assessment
- teacher as expert and teacher as facilitator
- student responsibility for learning and teacher responsibility for student learning
- academic achievement and whole child achievement (Kise, 2013)
- teaching content and teaching strategies to learn content
- standardization and differentiation

When learning, the constructivist theory holds that people give meaning to things they think about by connecting new ideas to existing schema (assimilation) or modifying existing schema (accommodation) when new ideas don't “fit.” As a learner, each person wants a certain amount of familiarity (or “Stability” pole) because the benefit includes security and comfort in what is being learned. Over time an abundance of familiarity, however, results in boredom. When that happens one becomes drawn to something exciting and interesting: a shift to the “Change” pole. At the same time, too much of the “new” without adequate support of the familiar (stability) can lead to feeling overwhelmed.



## CONFLICT

Polarities are interdependent pairs of values (poles) that need each other over time to gain and maintain performance. The poles are often mistakenly considered as “sides” because they appear to be in competition in an attempt to achieve the same outcome. The polarity perspective involves seeing a more complete picture of a polarizing situation and respecting the wisdom of resisters who prefer a different pole.

In areas of conflict, the tendency is to make “containers” for other groups or individuals and their values that we disfavor. We also positively stereotype our own values as if there were no downside. This confirmation bias of “seeking out and interpreting new evidence in ways that confirm what we already think” is further compounded by the self-generating beliefs we adopt and reinforced in cycles of the Ladder of Inference (Senge, 1994):

- our beliefs are *the* truth;
- the truth is obvious;
- our beliefs are based on real data;
- and the data we select are the real data.

Betty Achinstein (2002), writing about conflict among schoolteachers, notes that collaboration and consensus – critical elements in building school community – actually generate conflict. She found that by airing diverse perspectives in a collective setting and encouraging teachers to debate what and how to do schooling, schools generate new conflicts of their commitments in creating collaborative communities.

In what ways might conflict represent a polarity?

In groups, conflict is a manifestation of achieving interdependence. Tensions between independence (autonomous unit) and interdependence (group, organization, nation-state, etc.) are ever present. In polarity language, the stronger the value, the greater the fear of the paradoxically competing truth. This inherent tension can be a source of productive energy, or it can lead to unproductive interactions and create an energy drain.

Groups that use tensions productively distinguish between affective and cognitive conflict. Affective conflict is personalized conflict and is detrimental to group energy and productivity. By comparison, cognitive conflict is conflict over ideas and approaches, and it is a hallmark of high-performing groups. Groups that engage in cognitive conflict critically examine ideas to sort out the best practices for student learning. Thus conflict becomes a resource (Amason, Thompson, Hochwater, & Harrison, 1995).

A powerful way in which a polarity perspective unifies competitive truths is through the subtle use of language. In a polarizing situation “and” is the preferred conjunction that joins reluctant group members to acknowledge another truth: dichotomous language like “versus” or “or” creates a false choice which further separates the community.



## DISTINGUISHING THE DIFFERENCE

Polarities are inseparable alternatives that need each other over time to achieve the same goal: for example, a thriving democracy values both individual liberties and equal rights for all. As such, polarities epitomize relentless issues that are unsolvable, unavoidable, and indestructible. Polarities also exist in a construct of a dynamic energy system that works in a predictable way and can be harnessed to reach the higher purpose. As such, one cannot remove oneself and step out of a polarity: polarities live in us and we live in them.

With the concept of Polarity Thinking, founder of Polarity Partnerships Barry Johnson (1996) offers a model for identifying and tapping into the natural tensions that are created as individuals and organizations attempt to engage in a conflict of ideas. He identifies these tensions as “polarities to leverage” with supplemental thinking – *not replacement thinking* – of “problems to solve.” While Johnson developed the concept of a Polarity Map to make the invisible tensions visible, he also states that polarities occur naturally – like gravity, like the sun – and cannot be owned by any one person.

Johnson asserts that when individuals, groups, and organizations distinguish between a “problem to solve” and a “polarity to leverage,” they can effectively deal with both. They can then celebrate and capitalize on diversity and convert resistance to change to a resource for a preferred and more sustainable future. In other words, they successfully harness both “either/or” thinking as well as “both/and” polarity thinking.

Leaders, teams, organizations, and nation-states must therefore ask this fundamental question when they are faced with a challenge: ***Is this a problem to solve, or an ongoing polarity that we must learn to leverage?***

Problems to solve are those that have one or more right answers that stand alone and often signaled by “either/or” thinking: the decision(s) and solution(s) are usually *either* right or wrong. For example, “What is slope of a vertical line?” or “What should we include in our parent survey?”

In contrast, polarities to be leveraged are sets of seeming opposites that cannot function well alone: these dilemmas require “both/and” thinking. Because the two sides of a polarity are inseparable and interdependent, you cannot choose one pole as a solution and ignore the other. When a polarity is inadvertently seen as a problem to solve – or one pole is empowered to the neglect of the other – a vicious downward cycle is created. The objective of leveraging polarities, then, is to liberate the best of both opposites while minimizing the negative consequences of over-focusing on each.



## CONCLUSION

Barry Johnson (1996) summarizes polarities as interdependent pairs that need each other over time to achieve a higher purpose. Both "sides" - or poles - are accurate yet incomplete. Attempting to address them with traditional problem-solving strategies only makes things worse. "Both/and", not "either/or", thinking is required to leverage these persistent dilemmas or tensions.

Like all organizations, schools are living paradoxes (i.e. polarities) rife with chronic, competing values. As dynamical systems of both energy and information, they give simultaneous attention to both tasks and relationships. The principles and tools of Polarity Thinking benefit individuals, groups, schools, and nations-states to support collaborative communities in capitalizing on both similarity and diversity to engage in cognitive conflict that releases energy and results in greater understanding and productivity.

Achinstein, B. (2002). *Community, Diversity, and Conflict Among Schoolteachers: The Ties that Bind*. New York, NY: Teachers College Press.

Amason, A. C., Thompson, K.R., Hochwater, W.A., Harrision, A.W. (1995). "Conflict: An Important Dimension In Successful Management Teams," *Organizational Dynamics*, 24, Vol. 1, pp. 20-34.

Boaler, J. (2000). *Multiple Perspectives on Mathematics Teaching and Learning*. Westport, CT: Ablex Publishing.

Collin, J. (2001). *Good to Great: Why Some Companies Make the Leap – and Others Don't*. New York, NY: HarperBusiness.

Collins, J. C., & Porras, J. I. (2005). *Built to Last: Successful Habits of Visionary Companies*. London: Random House.

Dufour, R. & Eaker, R. (1998). *Professional Learning Communities at Work*. Bloomington, IN: National Education Service.

Garmston, R.J. & Wellman, B. M. (2013). *The Adaptive School: A Sourcebook for Developing Collaborative Groups*. New York, NY: Rowman & Littlefield.

Hattie, J. (2009). *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement*. New York: NY. Routledge.

Heifitz, R. A. & Linsky, M. (2002). *Leadership on the Line: Staying Alive Through the Dangers of Leading*. Boston, MA: Harvard Business School Publishing.

Johnson, B. (1996). *Polarity Management: Identifying and Managing Unsolvable Problems*. Amherst, MA: HRD Press, Inc.

Kise, J. (2013). *Unleashing the Positive Power of Differences: Polarity Thinking in Our Schools*. Thousand Oaks, CA: Corwin.

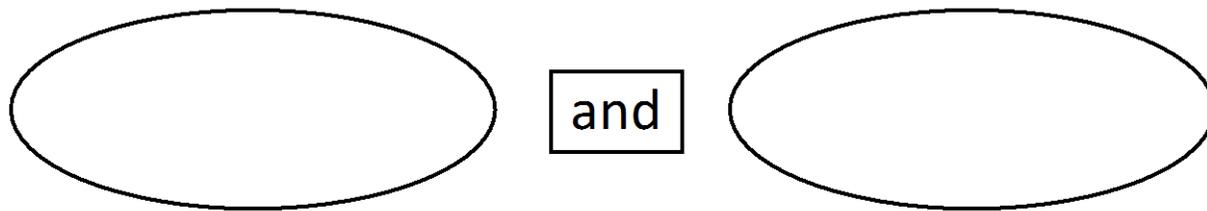
Senge, P, M, Kleiner, A., Roberts, C. Ross, R.B., & Smith, B.J. (1994). *The Fifth Discipline Fieldbook*. New York, NY: Doubleday.

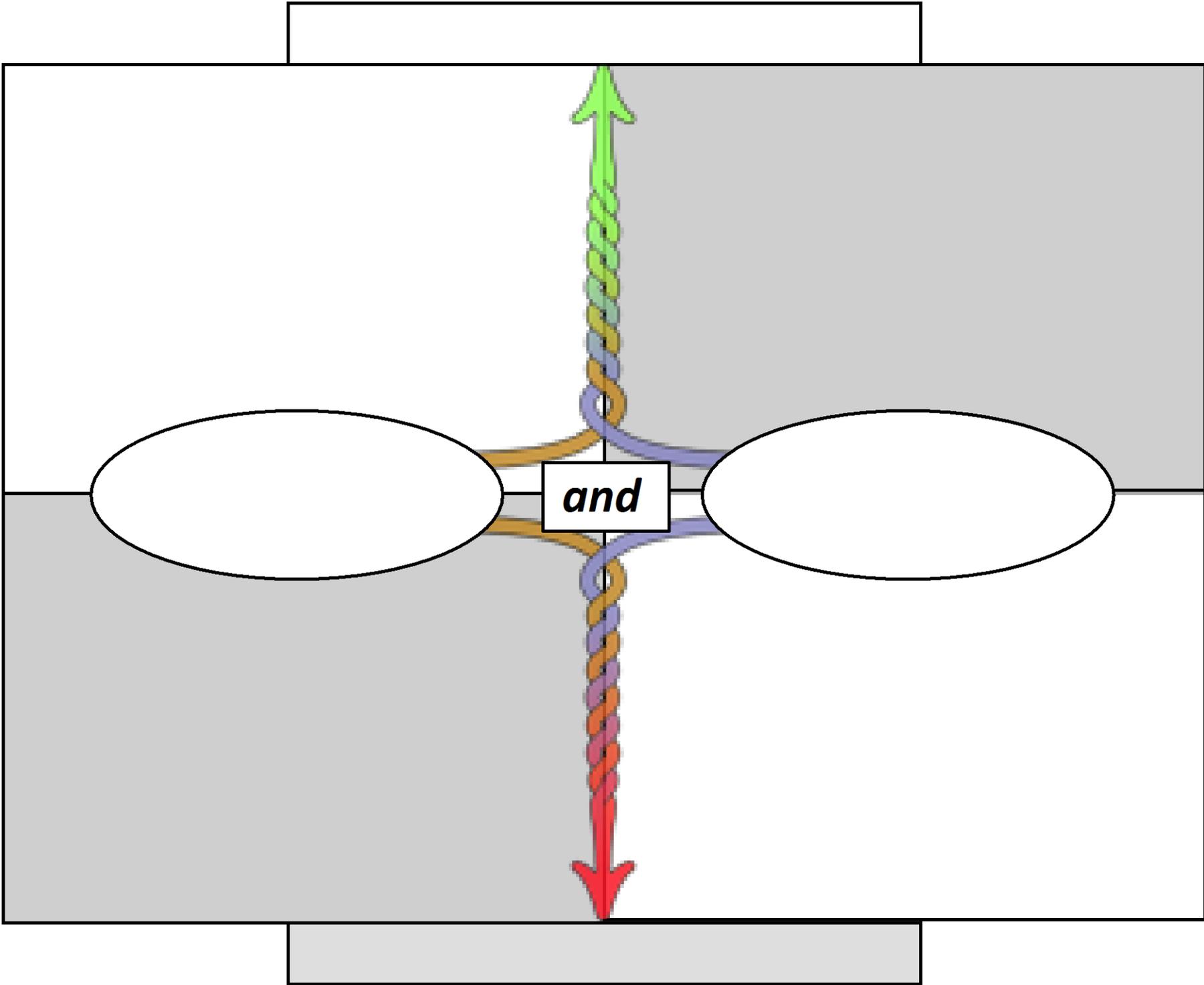


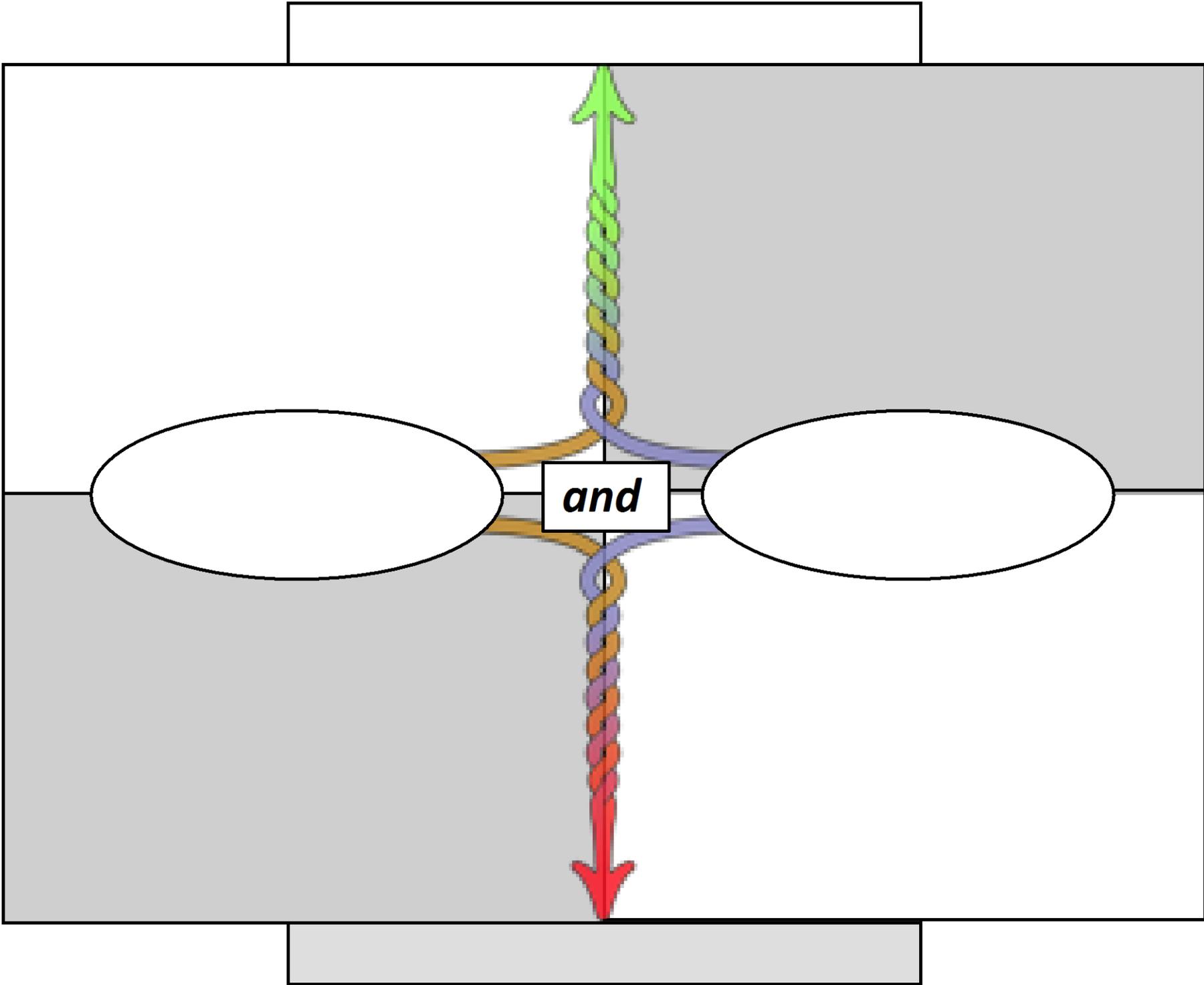
## Distinguishing “Problems to Solve” from “Polarities to Leverage”

Problems to Solve	Polarities to Leverage
<p style="text-align: center;"><b>Static:</b></p> <ul style="list-style-type: none"> <li>- Rational and technical in nature</li> <li>- Involve decisions between or among multiple alternatives</li> </ul> <p style="text-align: center;"><b>They are not ongoing:</b></p> <ul style="list-style-type: none"> <li>- You can decide and move on</li> <li>- There is an endpoint</li> </ul> <p style="text-align: center;"><i>They are solvable by making a choice among alternatives.</i></p>	<p style="text-align: center;"><b>Dynamic:</b></p> <ul style="list-style-type: none"> <li>- Involve interdependent pairs and multiple sets of interdependent pairs</li> </ul> <p style="text-align: center;"><b>Energy is ongoing:</b></p> <ul style="list-style-type: none"> <li>- There is no endpoint as long as the system is functioning</li> </ul> <p style="text-align: center;"><i>You <b>cannot</b> solve polarities by making a choice. Doing so is unsustainable.</i></p>
<p style="text-align: center;"><b>Independent Alternatives:</b></p> <ul style="list-style-type: none"> <li>- Choices can stand alone</li> <li>- For a solution to work, there is no need to include an alternative</li> </ul>	<p style="text-align: center;"><b>Interdependent Alternatives:</b></p> <ul style="list-style-type: none"> <li>- Poles cannot stand alone</li> <li>- The alternative views need each other over time to optimize the situation</li> </ul>
<p style="text-align: center;"><b>Benefits:</b></p> <ul style="list-style-type: none"> <li>- Decisions can be swift and efficient</li> <li>- Clear and final answers</li> <li>- Enjoy sense of accomplishment</li> <li>- Move on to new opportunities and challenges</li> </ul>	<p style="text-align: center;"><b>Benefits:</b></p> <ul style="list-style-type: none"> <li>- Save time by identifying difficulties that can only be leveraged and not solved</li> <li>- Accelerate change by seeing accuracy and completeness</li> <li>- Sustain desired change and avoid vicious cycles</li> </ul>
<p style="text-align: center;"><b>Examples:</b></p> <p style="text-align: center;">Should we promote Jay?</p> <p style="text-align: center;">What should I include on my quiz?</p> <p style="text-align: center;">Should we invest in new busses?</p> <p style="text-align: center;">What events prompted World War I?</p> <p style="text-align: center;">Which insurance company is best?</p>	<p style="text-align: center;"><b>Examples:</b></p> <p style="text-align: center;">Retain Employees <u>&amp;</u> Hire New Talent</p> <p style="text-align: center;">Honor present/past <u>&amp;</u> Vision the future</p> <p style="text-align: center;">Short Term Goals <u>&amp;</u> Long Term Goals</p> <p style="text-align: center;">Competition <u>&amp;</u> Cooperation</p> <p style="text-align: center;">Reduce Cost <u>&amp;</u> Improve Quality</p>
<p><b>Treating a polarity as if it were a problem to solve: (1) reduces attainability, (2) slows down the process by increasing resistance, and (3) even if the resistance is overcome, the change is inherently unstable.</b></p>	





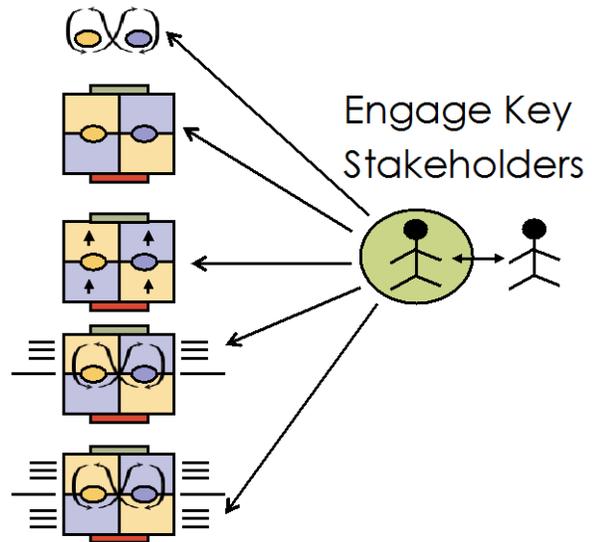




# 5-Step S.M.A.L.L. Process



1. **S** Seeing
2. **M** Mapping
3. **A** Assessing
4. **L** Learning
5. **L** Leveraging



## Key Points

Our preferences / choices reflect our \_\_\_\_\_ and \_\_\_\_\_.

Some choices are easy: we readily identify their value. Other choices are difficult. This creates a dilemma or \_\_\_\_\_ which reflects an appreciation of both sets of values and fears.

You feel tension because the choice is a \_\_\_\_\_ choice. All polarities contain two points of view, which are absolutely true, AND they are part of a pair of truths that need each other over time.

Respect the tension and \_\_\_\_\_ it.

Forcing others to come to your point of view is likely to create feelings of \_\_\_\_\_, \_\_\_\_\_, etc. Behaviors that accompany these feelings are often counterproductive.

When the "power" position "wins" in a polarity situation, failure is \_\_\_\_\_. The \_\_\_\_\_ of the "power" pole will result.

When dealing with the polarity, the smaller the \_\_\_\_\_ voice, the more important it is to pay attention to that voice and the truth it represents.

Every change effort is part of a polarity energy system. If you want to \_\_\_\_\_ failure of a change effort, tie it to \_\_\_\_\_ of a polarity. *If you want success, tie it to **both poles**.*

<b>map</b>	<b>minority</b>	<b>fears</b>	<b>downside</b>	<b>tension</b>
<b>resentment</b>		<b>guaranteed</b>	<b>interdependent</b>	<b>resistance</b>
<b>paradox</b>	<b>guarantee</b>	<b>values</b>	<b>false</b>	<b>(one pole)</b>

Jay Roth, [jroth@lebanon.k12.mo.us](mailto:jroth@lebanon.k12.mo.us) or  
[jay@pathwaysinsight.com](mailto:jay@pathwaysinsight.com) @cognitivecoachj

Jay's Polarity LiveBinder:

[www.livebinders.com/play/play?id=1241861](http://www.livebinders.com/play/play?id=1241861)

Jay's Scoop.it: [www.scoop.it/t/thinking-collaborative](http://www.scoop.it/t/thinking-collaborative)

- Charleston SC, Police Department Strategic 2011-2015 Plan (5 polarities):

<http://www.charleston-sc.gov/DocumentCenter/View/579>

- Charleston SC, Police Department Strategic 2015-2019 Plan (2 polarities):

<http://www.charleston-sc.gov/DocumentCenter/View/9636>

