

## **Leaders Expanding Their Minds through Elastic Thinking for Creative and Innovative Problem Solving**

**Dr. David E. Bartz**

Professor Emeritus

Department of Educational Leadership

Eastern Illinois University

600 Lincoln Avenue, Charleston, IL 61920 USA

### **Abstract**

*Effective transformational leaders must be able to facilitate meaningful change to be successful. While the traditional approach of analytical thinking based on reasoning using existing facts and perspectives may have served them well in the past, this approach often limits leaders from causing meaningful change because it has a built-in bias of the here and now. Elastic thinking will serve leaders more effectively for identifying new creative and innovative ways to address existing problems and ongoing issues. Elastic thinking is represented by: (1) flexible thinking, (2) abandoning ingrained assumptions that limit the identification of new innovative and creative solutions to problems and issues, (3) utilizing a leader's imagination and "free thinking" to establish new frameworks of references, and (4) looking beyond existing conditions by using different perspectives for thinking that opens up the mind to creating new associations and relationships between ideas and concepts for problem solving and addressing issues.*

**Keywords:** elastic thinking, analytical thinking, problem solving, leadership

"The difficulty lies not in the new ideas, but in escaping from the old ones."—John Maynard Keynes (cited in Rifkind, 2018, p. 5)

### **1.0 Introduction**

Transformational leaders are expected to develop creative, innovative new ideas for solving problems and generate alternative insights for ongoing issues. A difficulty many leaders encounter in their endeavors to truly fulfill the expected change role of a transformational leader is that they are conditioned to utilize the traditional analytical thinking (reasoning) process. This process works well in some situations with its lock-step sequential logic based on the existing facts, situational factors, and perceived framework to work within for a given problem. These attributes of the analytical thinking approach can also be its nemesis, especially regarding change.

The traditional analytical thinking approach to problem solving limits the aspiring transformational leader from *thinking outside the box*. Because the existing situational factors and conditions are often assumed to be unchangeable or "givens," innovative and creative new ideas are stifled. The same is true for leaders identifying new perspectives for ongoing issues, such as how to develop the talent of staff. Elastic thinking is a process that prompts leaders to develop new insights and perspectives for problems and issues and aligns perfectly with the change emphasis of transformational leadership. Before delving into elastic thinking, a brief review of transactional and transformational leadership is presented.

### **1.1 A Brief Review of Transactional Leadership and Transformational Leadership<sup>1</sup>**

Transactional leadership stresses management as measured by effectively implementing what now exists (*the status quo*), whereas transformational leadership is *aligned with change* and improvement for the future. Contrary to the opinions of some, transactional and transformational leadership are not mutually exclusive. Both are needed to be an effective leader. It is important to note, though, that to make significant improvement and *change*, leaders need to utilize transformational leadership behaviors.

**1.1.1 Transactional Leadership.** It focuses on leaders: (a) maintaining the status quo as efficiently as possible, (b) using disciplinary power and incentives to motivate staff to perform their best by exchanging rewards or punishments for performance, (c) taking actions to make everything run smoothly today, (d) being task and

outcome oriented for what is now in place, (e) emphasizing compliance with existing goals, (f) paying close attention to how staff members perform their work, (g) working within the present culture, and (h) not “rocking the boat.”

**1.1.2 Transformational Leadership.** It focuses on leaders: (a) challenging the status quo by identifying new innovative and creative ways to solve problems and examine important issues, (b) emphasizing new perspectives to “transform” and change the present culture to a new and improved culture, (c) continuing improvement through setting goals to measure improvement targets, (d) establishing agreed upon and worthwhile direction for staff members’ efforts, (e) motivating staff to support implementing change, (f) collaborating and team building, (g) stressing collaboration among staff members and other stakeholders, (h) affording staff members time and resources for professional growth, and (i) coupling data with new and unique insights to improve the future.

Dispositions (mindset) of effective transformational leadership are:

1. **Growth-oriented:** Believe that the organization, its work units, and stakeholders can continuously grow and improve to realize a shared vision for personal and organizational success through dedication and hard work.
2. **Collaboration:** Share the responsibility and the work for realizing a common vision for success for all staff and other stakeholders.
3. **Innovation:** Break from established ways of thinking and doing business to pursue fundamentally new and more effective approaches to problem solving.
4. **Analytical:** Gather evidence and engage in rigorous data analysis to develop, manage, refine, and evaluate new and possibly more effective approaches to solving problems.
5. **Ethical:** Explicitly and consciously follow laws, policies, and principles of right and wrong in everything the leader does.
6. **Perseverant:** Be courageous and persevere in doing what is best for the organization, even when challenged by defeat, risk, and doubt.
7. **Reflective:** Habitually re-examine practices and dispositions in order to develop the “wisdom of practice” needed to succeed in pursuing new and more effective approaches.
8. **Equity-minded:** Ensure that all staff and other stakeholders are treated fairly, equitably, and have access to necessary resources for development. [Based on ISLLC 2015; Model Policy Standards for Educational Leadership (Draft, May, 2015, p.9)]

**1.1.3 Summary.** Remember that transformational leadership is *future and change oriented*, while transactional leadership advocates *the status quo* and works to effectively implement and maintain it. These two types of leadership behaviors are not mutually exclusive. Effective leaders know why and when to use either transactional or transformational leadership to maximize effectiveness.

## 2.0 Elastic Thinking Characteristics—An Overview<sup>2</sup>

Holistically, key elements of elastic thinking are:

- Leaders moving beyond their conventional mindsets through *flexible thinking* to reframe questions asked so as to generate more ideas to solve problems and gain new insights on issues.
- Leaders displaying the ability to abandon ingrained assumptions and open themselves to new associations, relationships, and paradigms for ideas to solve problems and address ongoing issues.
- Leaders generate new ideas for problem solving and perspectives for issues by utilizing their imagination and “free thinking” as much—or more—than the traditional step-by-step analytical thinking based on existing frames of reference.
  - Leaders demonstrating the willingness to experiment, innovate, and try different approaches to problem solving.
  - Leaders looking beyond the existing conditions and order of things to explore new ideas to solve problems and gain additional perspectives on issues (Mlodinow, 2018; Kirkus Review, 2018).

### 2.1 Bottom-up Instead of Top-down Thinking

In comparison to the traditional linear *analytical thinking*, which is represented as a step-by-step progression of logical relationships between factors to solve a problem, elastic thinking is a “bottom-up” process that is not bound by analytical reasoning’s lock-step thinking approach. The *bottom-up* process is nonlinear and produces thoughts and ideas, as well as new associations between them that do not arise through analytical thinking for which the brain operates in a *top-down* mode.

The bottom-up approach used by elastic thinking causes leaders to have new insightful associations, patterns, and relationships between concepts and ideas to prompt alternative solutions for problems and different perspectives on issues.

Elastic thinking can also cause a *sideways expansion* of the parameters and mental boundaries that often restrict the number of ways perceived by a leader for solving problems or gaining new perspectives on issues (Rifkind, 2018, p. 4).

## **2.2 Change and Elastic Thinking**

Contrary to the opinions of many people that humans generally prefer the status quo as compared to change, in the absence of negative consequences, people are *attracted* to the novelty of change and often relish it (Mlodinow, 2018; Kirkus Review, 2018). Technology has caused leaders to adjust to a plethora of changes in the past several decades, and leaders often seem curious as to what will be the next technology-driven changes. Leaders have come to expect change, possibly because of its quickening pace and positive contributions to information, entertainment, and easy access for communicating with others.

A person's cognitive style in the context of drawing conclusions, making decisions, and solving problems has much to do with how one processes the challenges of change. In reality, cognitive style is often composed of both analytical and elastic thinking, with the combination one utilizes dependent upon the conditions, mood, and situational factors (Baggini, 2018; Mlodinow, 2018). Leaders can condition themselves to think more elastic and less analytical. In general, there often is a need for leaders to develop more of their elastic thinking skills for enhancing problem solving and generating new ideas and perspectives for ongoing issues.

## **2.3 A Different Framework for Thinking**

Bacon (2012) found that reasoned thought—*analytical thinking*—is the “influence approach used throughout societies in most of the world” (p. 54). Elastic thinking encourages leaders to break out of this traditional analytical thinking approach and utilize a new “framework of thinking” as the only way to approach problem solving. Leaders must question, and even at times disregard previous assumptions. Gregerson (2018) suggests that “Great innovators have always known the key to unlocking a better answer is to ask a better question—one that challenges deeply held assumptions” (p. 64). Vigorously pursuing elastic thinking requires leaders to alter their attitudes and beliefs and be willing to consider new approaches to solve a difficult ongoing problem. This allows the leader to have new perspectives and identify innovative and creative ideas for addressing a particular problem. Mlodinow (2018) opines that:

“Solving problems and drawing conclusions within an existing framework requires a blend of analytical and elastic thinking. But the act of envisioning a new framework for thought relies heavily on the elastic component—skills such as imagination and integrative thinking” (p. 76).

## **2.4 Mental Fatigue and the Brain's Default Mode**

While it may seem counter-intuitive, an excellent time to develop creative and innovative ideas is after a leader has engaged in extremely focused and exhausting concentration on solving a complex problem for an extended time (e.g., several hours). When one feels mentally fatigued from extended concentration, *elastic thinking* is more likely to occur. Through this process new concepts and ideas can be realized for creative and innovative solutions to problems.

A state of mental fatigue prompts the brain to enter the “default mode” that allows a leader's integrative thinking process to reconcile diverse ideas without censorship of possibilities. It allows for “free thinking” unobstructed by the traditional lock-step analytical approach to thinking and problem solving. The default mode often initially processes information of what was recently experienced or learned. Intentionally clearing the mind after working on a difficult problem for an hour or two and *slowing down* thinking, may result in the default mode linking together new associations that prompt ideas for previously unrealized solutions to the problem just studied or issues reviewed. In this vein, Baker (2018) advises leaders to “induce a state of relaxed awareness while letting go of distracting thoughts” to slow down thinking (p. 43). A minute or two of conscious breathing—deep breaths to relax—is a useful technique to initiate relaxing for elastic thinking (Liu, 2016).

*Associating* helps leaders to “confirm meaning on what you see, hear, taste, smell, and touch” (Mlodinow, 2018, p. 77). This allows leaders to “escape established patterns of thinking and, instead, lets their thoughts become stretchy” (Rifkind, 2018, p. 2). Such thinking fosters “the ability to abandon our ingrained assumptions and open ourselves to new paradigms, to generate and integrate a wide variety of ideas” (Mlodinow, 2018, p. 74).

With elastic thinking a leader is not in a processing mode of autopilot—merely reacting as usual using previously identified reference points—but is discovering new ideas that are associated and combined with the variables of an existing problem that result in creating new ideas and solutions. Through elastic thinking the unconscious or daydreaming, wandering mind produces substantive solutions to problems which our conscious analytical mind often fails to recognize.

## **2.5 The Unconscious Mind and How to Facilitate Elastic Thinking**

Elastic thinking often is initiated on the unconscious level and is emotionally driven, resulting “in genuine creativity essential in business and personal lives” (Kirkus Review, 2018, p. 1). This represents the “new” view of how and what is done by the unconscious mind based on extensive brain research. This new view is compared to the “old” view in which Freud and other psychologists previously explained the unconscious (Mlodinow, 2012).

Regarding leaders stimulating and prompting elastic thinking, Mlodinow (2018) states that “If we are to exercise the elastic thinking demands by our fast-paced times, we have to fight the constant intrusions and find islands of time during which we can unplug” (p. 80). This means leaders must resist the feeling of a sense of urgency to immediately respond to—or send information from—electronic devices via texts, emails, phone calls, and tweets, as well as avoiding habitually being on the internet. Overuse of electronic devices causes a “psychological dependence” that impedes linking together sufficient periods of time for elastic thinking (Cheever, Rosen, Carrier, & Chavez, 2014).

Carr (2017) reports that the typical iPhone owner uses it 80 times a day or nearly 30,000 times a year. Carr also observes that “our devices have an unprecedented grip on our attention—and research suggests that as we grow more dependent on them, our intellects weaken” (p. c-1). He continues by noting that they are “an attention magnet unlike any we have had to grapple with before” (p. c-2). We must control these electronic sources—as opposed to them controlling us—to create times when our brain can unplug and go into the default mode for bottom-up elastic thinking. This frees leaders from the limitation of the traditional top-down, analytical thinking mode that limits the unconscious from generating new associations between concepts and variables. This will produce new innovative and creative solutions to problems and unique perspectives to ongoing issues.

At the conscious level, elastic thinking can accelerate if we relax and stretch our mind for new ideas and perspectives on a particular problem or issue. This will help the association and flexible thinking processes “kick-in” to generate new solutions for a problem and new perspectives on an issue. Coupling elastic thinking through free-wheeling insights from a network of people whose opinions a leader values will often accelerate new ideas. These interactions often cause leaders to identify new associations and relationships between these new ideas and existing perspectives for a specific problem or issue being addressed.

## **3.0 Concluding Thoughts on Elastic Thinking**

Traditional perspectives of critical thinking for problem solving rely heavily on analytical reasoning. A recent study by Weschler et al. (2018) concludes that creativity and critical thinking are, indeed, two separate factors. Elastic thinking stimulates creative thinking for problem solving and, therefore, is a significant positive complement for those leaders primarily using the traditional analytical approach to solving problems. Summarizing the benefits of elastic thinking in relation to the traditional lock-step analytical thinking, Mlodinow (2018) states that:

“Analytical skills are crucial to meeting the challenges we face. But even more important is the magic of elastic thinking, which can generate new, often wild ideas. Some will prove useless, while others will culminate in the innovative solution required for the problems of modern existence” (p. 80).

Elastic thinking gives leaders the skills to solve problems in a novel manner and supersedes psychological barriers that have often prevented them from previously doing so. Leaders need to make sure they carve out time from their busy schedules and occasionally “unplug” from electronic devices to use elastic thinking to develop creative, innovative new ideas for more effective problem solving and positions for ongoing issues. This is reinforced by John (cited in Ayers, April 2018) in a recent *Money Magazine* article entitled 5 Secrets for a More Productive Day, when he notes that leaders need to “find alone time” and “seek to disconnect from technology” (p. 22).

#### 4.0 Footnote

<sup>1</sup>Based in part on Bartz, D.E. (2016, August). A review of leadership for school administrators. *Leadership Matters*, 33-34.

<sup>2</sup>Based in part on Bartz, D.E. (2018). “Elastic thinking” can stretch superintendents’ minds for enhanced problem solving. *Leadership Matters* (in press).

#### 5.0 References

- Ayers, M. (2018, April). 5 Secrets for a more productive day. *Money*, 47(3), 22.
- Bacon, T.R. (2012). *Elements of influence*. New York, NY: Bristol Park Books.
- Baggini, J. (2018, March 9). Elastic by Leonard Mlodinow—free thinking. *Financial Times*. Retrieved from <https://www.ft.com/content/79468e82-22e1-11e8-8138-569c3d7ab0a7>
- Baker, S. (2018). *Calm your mind . . . Change your brain*. New York, NY: Centennial Media.
- Bartz, D.E. (2018). “Elastic thinking” can stretch superintendents’ minds for enhanced problemsolving. *Leadership Matters* (in press).
- Bartz, D.E. (2016, August). A review of leadership for school administrators. *Leadership Matters*, 33-34.
- Carr, N. (2017, October 7-8). How smart-phones hijack our minds. *Wall Street Journal*, c-1, c-2.
- Cheever, N.A., Rosen, L.D., Carrier, L.M., & Chavez, A. (2014). Out of sight out of mind: The impact of restricting mobile device use on anxiety levels among low, moderate, and high users. *Computers in Human Behavior*, (37), 290-297.
- Council of Chief State School Officers. (2015, May). ISLLC 2015: Model Policy Standards for Educational Leaders.
- Gregerson, H. (2018, March/April). Better brainstorming. *Harvard Business Review*, 2, 64-71.
- Kirkus Review. (2018). Elastic - flexible thinking in a time of change. *Kirkus Review*. Retrieved from <https://www.kirkusreview.com/book-reviews/leonard-mlodinow/elastic/>
- Liu, Y. (2016). Brenda Sulgado (Ed.) in *Real world mindfulness* (pp. 27-36). New York, NY: Fall River Press.
- Mlodinow, L. (2018). Your elastic mind. *Psychology Today*, 51(2), 72-80.
- Mlodinow, L. (2012). *Subliminal: How your unconscious mind results your behavior*. New York, NY: Vintage Books.
- Rifkind, H. (2018). Review: Elastic thinking in a constantly changing world by Leonard Mlodinow—stretchy brains are best. Retrieved from <https://www.thetimes.co.uk/article/review-elastic-thinking-in-a-a-constantly-changing-world-by-leonard-mlodinow-stretchy-brains-are-best-pjgfhfc5c>
- Wechsler, S.M., Suiz, C., Rivas, S.F., Vendramini, C.M., Almeida, L.S., Mundim, M.C., & Franco, A. (2018). Creative and critical thinking: Independent or overlapping components? *Thinking Skills and Creativity*. (27), 14-22.