



**CREATIVE THINKING
FOR LEADERS -**

CHANGING YOUR PERSPECTIVE

AUTHORS

Albert Meige, Rémi Larrousse

There is still a fashionable prejudice that large corporations don't know how to do rapid radical innovation, and that start-ups are now taking the place of the research and innovation departments within big firms because the "liner is too big to turn". This is misguided. As we saw during the COVID-19 crisis, some large companies can deliver incredible innovations very quickly. Existing products were rapidly hacked to fight the virus. For example, sporting goods retailer Decathlon transformed its diving mask into a respirator.

Pharmaceutical giants such as Pfizer and AstraZeneca reinvented the vaccine development cycle. Some companies made their industrial capacities available to produce essential equipment, such as Faurecia producing facemasks and LVMH hydroalcoholic gel. In most cases, decisions were taken at the highest level in just a few days. Large companies know how to innovate and move fast – when the platform is burning.

Yet, in normal times, innovation can still be a big challenge. One reason is that, faced with a complicated business or technical problem under non-crisis conditions, smart people and smart companies generally love to follow the Cartesian approach: i) break it down into sub-problems, ii) solve each of the sub-problems, and iii) combine the sub-solutions to obtain the solution to the initial problem. In practice, this doesn't necessarily work because it presupposes that the interdependencies between the sub-problems are negligible.

The other common approach, beloved of our own consulting world, is the "assumption-driven" approach, whereby based on experience and expertise, one tries to imagine the right solution, and then seeks out the facts or data that will support it. It works relatively well in many cases, but there is one big drawback – the imagined solutions are biased by our expertise and mental models.

In this article, we bust some common myths about what creative thinking means for business executives, and explain how it can and should be implemented pragmatically as an integral part of the business management process.

THE CHALLENGES FACED BY TODAY'S BUSINESS EXECUTIVES

Niels Bohr, the Nobel laureate in physics and father of the atomic model, said, "Prediction is very difficult, especially if it's about the future!" This is an ironic but very true statement. Anticipating the future has never been easy, but most people would accept that it has become increasingly difficult in today's business world due to the rapid pace of change, the blurring of boundaries between traditional sectors, and the sheer volume of available intelligence. Executives face a triple challenge, as shown in Figure 1¹.

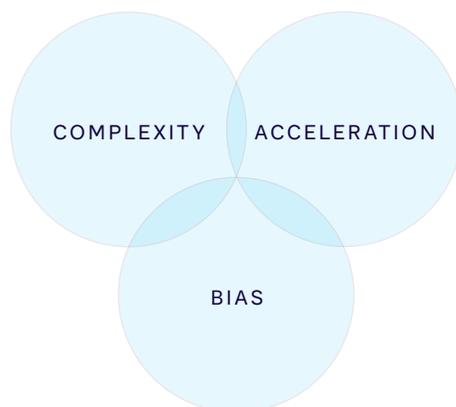


FIGURE 1: THE CHALLENGES FOR EXECUTIVES

1. See also our article published on HBR France: www.hbrfrance.fr/chroniques-experts/2021/10/40194-le-triple-defi-des-p-dg-dans-un-monde-complexe/

First, executives need to deal with additional complexity, resulting especially from convergence between technologies and sectors. For example, if we consider the future of food², executives have to look beyond the agri-food sector towards pharma, logistics and e-commerce, and beyond food manufacturing technology towards life sciences, gene editing, smart materials and digital technologies.

Second, executives need to be able to move faster. New, disruptive technologies are accelerating how quickly they improve performance and penetrate the market once they have reached maturity. Gene editing is a good example of how new technologies can follow an exponential growth curve following a breakthrough.

Third, executives need to cope with cognitive biases that prevent them from thinking freely and differently, one of the prerequisites for innovation. These cognitive biases arise from the fact that the brain creates mental models of reality based on what has always worked in the past. The more one knows an industrial sector or company, the less likely one is to detect anomalies or disruptions that often arrive sideways and unexpectedly out of the “fog”.

Creative thinking is essential to cope with these challenges. It helps identify fresh opportunities arising from convergence in a way that purely linear analytic reasoning cannot. It helps with thinking laterally to detect weak signals and new disruptive technologies early enough to avoid being left behind. In particular, it helps overcome cognitive bias by generating fresh perspectives.

More often than not, executives have achieved leadership positions because they are good at guiding their organizations to deliver high performance. However, the most successful ones have also succeeded in becoming “ambidextrous”³, combining “business as usual” with creative capabilities to explore new territories and detect anomalies. It is among these anomalies that the seeds of tomorrow’s business are to be found.

CREATIVE THINKING IS NOT WHAT YOU THINK IT IS

One of the key barriers preventing business leaders from properly embracing creative thinking is that it is misunderstood. Here are five common myths that leaders should be aware of:

– **Myth 1 – Creative thinking is the opposite of analytical thinking:**

The left brain is often considered to be analytical, rational, and logical, while the right brain is related to creativity and imagination. However, this distinction between the two hemispheres of the brain is a myth, and many researchers have dismantled this idea⁴ and the way it has spread in our society.⁵ Creative thinking is not the opposite of analytical thinking; rather, both are complementary and

2. See also Appetite for disruption – Making the most of the future of food [Prism S2 2021]

3. See also Ambidextrous organizations – Build sustainable competitive advantage, Arthur D. Little 2017

4. Nielsen, Zielinski, Ferguson, Lainhart, Anderson. An Evaluation of the Left-Brain vs. Right-Brain Hypothesis with Resting State Functional Connectivity Magnetic Resonance Imaging. *PLoS ONE*, 2013

5. Elena Pasquinelli, *My brain, this hero – myths and realities*, Paris, Le Pommier, 2015

mutually reinforcing. For some neuroscientists, such as Beau Lotto⁶, creativity is better considered a supercharged version of analytical thinking.

- **Myth 2 – Creative thinking involves having a “Eureka!” moment:** This myth of sudden enlightenment is often found in the autobiographies of famous inventors and researchers, and contributes to the image of the solitary genius struck by an intuitive flash. In reality, any idea is rarely born “good.” When we look at all the experiments and drafts inventors and composers go through, we can see all the erasure marks and rewrites that show that an idea has progressed slowly.
- **Myth 3 – Creative thinking is about brainstorming and gimmicky workshops:** The creativity training industry, with its endless tools and jargon that deliver questionable results, has given the concept of creative thinking a bad name. Research has shown that brainstorming is not an efficient way to deliver solutions to complex problems.⁷ In reality, creative thinking is most often simply a matter of conducting the right thought experiment to see a situation from a new perspective and changing the framing of the problem you are trying to solve.
- **Myth 4 – Creative thinking is synonymous with free thinking:** We all have in mind the “thinking out of the box” paradigm. Once again, this image is false. In reality, it is usually not the existence of a “box” that is constraining creative thinking. Indeed, often the best creative thinking can arise by adding an “artificial box”. We often hear in companies, “There’s not enough budget to be creative,” or, “There are too many regulatory constraints that limit our options.” However, constraints are often what makes creativity possible. Constraints, used in conjunction with creative thinking, can help to produce more offbeat or disruptive ideas, for example, due to the need to side-step a constraint.
- **Myth 5 – Creative thinking is the responsibility of the innovation department:** In reality, creative thinking is both distinct from and complementary to the innovation process. Creative thinking is a cognitive approach that involves changing the way you look at a problem, and therefore can be applied to any aspect of the business, from innovation through to strategy, marketing, finance, or management accounting. Creative thinking is not just for creatives.

6. Beau Lotto, *Deviate: The Science of Seeing Differently*, Hachette Books, 2017

7. Nicholas W. Kohn, Steven M. Smith, *Collaborative fixation: Effects of others' ideas on brainstorming*, Applied Cognitive Psychology, 2011

Based on this, we offer a definition that is useful in a business context:

Creative thinking is the ability to change our perspective on a problem in an intentional way in order to identify original or unexpected solutions.

Each underlined part of the definition is important:

Changing perspectives: Here lies the core mechanism of creative thinking – the ability to perceive a problem from different angles and different perspectives. Changing perspectives helps to redefine the problem and find original or unexpected solutions, and ultimately aids in reframing the problem entirely to change the nature of the solutions.

A CREATIVE SOLUTION DOES NOT ALWAYS NEED TO BE BASED ON A NEW IDEA. IT COULD BE AN OLD IDEA APPLIED IN A NEW WAY.

Making the process intentional (instead of accidental): We know that a number of discoveries or inventions were made by chance or luck. However,

Louis Pasteur said, “Chance favors the prepared mind.” The question is, therefore, how to prepare the mind. Creative thinking can rely on certain tactics that can be used to systematically shift our perspectives.

Original or unexpected solutions: In this definition, the emphasis is on solutions rather than ideas. This is important because a creative solution does not always need to be based on a new idea. It could be an old idea applied in a new way. For example, the electronic cigarette industry that grew up in the 2000s was based on idea originally patented in 1963.

INSIGHTS FOR THE EXECUTIVE – HOW LEADERS CAN IMPROVE THEIR CREATIVE THINKING

How should executives go about improving their creative thinking? A good starting point is to ensure leadership properly buys into the idea that it is an integral part of reasoning and decision-making – and applies to everyone. For example, we often hear our clients say, “I’m not creative, and neither are my teams!” or, “Please, not too many ideas! Otherwise, we won’t know what to do with them.” This is the wrong mental model. Of course, effective rational thinking relies heavily on analytical processes, but also requires a healthy dose of creativity. Otherwise, it’s just thinking halfway.

There have been many methods and tools developed over the last few decades to help drive creative thinking, such as Kaizen, brainstorming, Six Thinking Hats, TRIZ, and the concept/knowledge (C/K) theory. Ultimately, the most important thing is not the school or the method, but rather, the underlying creative tactics that can be used for problem-solving, tackling strategic challenges, or decision-making.

We can illustrate this with a simple example. Several years ago, we collaborated with a company that was developing a cordless iron. The question the teams were asking themselves was: “Who can design a small, inexpensive battery powerful enough to store the energy necessary for the creation of water vapor?” At the time, this type of battery did not exist, and no laboratory was able to design it. The key creative step was to change the perspective, reframe the question and look for substitutes. It was not the battery itself that interested us, but the effect of steam. So, we reframed the question: “Is there a substitute for water vapor that shares the same properties, but with less energy consumption?” This is what led the teams to identify water atomization technologies. In seeking a substitute for steam, the insoluble problem of energy storage became a solvable problem around lowering energy consumption.

In this example, no special tools were used. While we would agree that such tools can sometimes be effective, they can also be time-consuming, costly, and viewed with skepticism, especially by time-hardened, battle-weary executives.

Instead, our experience has shown that using the following six tactics in a culture that recognizes creative thinking as part of the normal decision-making process will go a long way towards helping analytical, linear-thinking executives to become more ambidextrous.

1. Pay attention to surprises and anomalies

Many scientific discoveries, such as penicillin and Velcro, are the result of accidents. Often there is a tendency to set aside anomalous information as an exception that might distract us from our main goals. The challenge is to pay attention to these surprises and anomalies and be prepared to take time to explore them, pull the thread of the ideas they raise, and develop them: In other words, to be conscious of the value of serendipity and the combination of chance and sagacity, and exploit it where we can.

2. Draw analogies from different fields

Drawing parallels between things that seem unrelated can help to approach a problem with a different lens. For example, in 2019, governments decided to ban plastic straws and single-use plastic. This posed a challenge within the food industry, which was not geared up to produce paper straws in large quantities. The solution came, perhaps surprisingly, from the cigarette industry, which knew a lot about small paper tubes. Teams should be encouraged to ask where else similar problems can be found, and how similar problems were resolved under other conditions.

3. Apply substitution and subtraction tactics

The substitution tactic involves finding possible substitutions that could transform the question being asked or provide an easier-to-implement solution. It can be applied systematically by considering different words, verbs, objectives and so on in the question being asked, and different processes, ingredients, forces, stakeholders, places and so on in the solutions being considered. Substitution is one of the TRIZ method principles, and is often underestimated in its effectiveness.

The subtraction tactic involves thinking systematically about which parts of the problem we could make disappear, what could be made smaller/lower/shorter/lighter, and how we could do it. Subtraction is also frequently underutilized, but can be a useful tool.

4. Ask three types of creative questions

This tactic encourages teams to reframe the problem and avoid jumping too quickly to the solution by thinking in terms of three types of questions:

- **Curiosity questions**, often starting with why, what and who (for example, what business we are really in and who our real clients are)
- **What-if questions**, for example, what if our business did not exist, or we made our product free?
- **Future questions**, for example, what could make us disappear, or make us irreplaceable, in five years?

5. Adopt the point of view of someone else

Putting oneself in the place of others is helpful to shift perspectives and detect unexpected and original solutions. For example, teams can be asked to consider a range of outside viewpoints, not only clients or end users (which is one of the central aspects of design thinking), but also others such as competitors, mentors, strangers, or even relatives. We also find it very effective to adopt the point of view of famous real or fictive people, such as Sherlock Holmes, Wonder Woman or Elon Musk. How would they see the problem, and how would they view possible solutions?

6. Play with semantics and visual sketches

Normally, issues, challenges, and problems are first defined by words put together to create sentences. Therefore, the ability to play with the meaning of words, to use one word rather than another, plays a key role in reframing a question to expand the field of possibilities. Similarly, visual “sketch-noting” or visual representation are useful

tools to foster our creative thinking. For example, teams can be encouraged to represent the problem in three different ways in the form of a drawing.

MOST, IF NOT ALL, EXECUTIVES ARE ALREADY AWARE THAT CREATIVE THINKING IS AN ESSENTIAL COMPONENT OF EFFECTIVE BUSINESS LEADERSHIP.

To conclude, most, if not all, executives are already aware that creative thinking is an essential component of effective business leadership. However,

not all leaders are fully aware of the extent to which their own and their company’s cognitive biases constrain their thinking. The most successful companies focus on the principles behind creative thinking, such as finding analogies, substitutions, alternative constraints, and different perspectives, and applying them to every aspect of the business. Being ambidextrous – being future ready as well as delivering business as usual – is one of the most important attributes of today’s leaders.

ALBERT MEIGE

is an Associate Director in Arthur D. Little's Paris office and the Director of the Blue Shift institute.

RÉMI LARROUSSE

is a Problem-Solving Wizard at Presans, an Arthur D. Little company, and based in Lausanne, Switzerland.