Edward De Bono's Lateral Thinking Model

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Abstract

This paper summarizes Edward De Bono's lateral thinking model. After presenting a brief historical synopsis, this paper compares the differences between lateral and vertical thinking. De Bono recognized the brain's tendency to organize perceptions and into patterns, which aid in daily life but that make novel thinking difficult. The key, according to De Bono, is to engage in lateral thinking – non-linear, non-sequential thinking that explores options without judgment and often leads to new ideas. De Bono developed numerous techniques that facilitate lateral thinking, disrupting mental patterns and ruts and creating novel ideas.

Keywords: pattern-recognition, lateral thinking

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Edward De Bono, a leading creativity practitioner, developed two different models regarding creative thinking called "lateral thinking" and "parallel thinking". De Bono developed his models over a number of years with his book, *Mechanism of the Mind*, being published in 1969. This book contained a key insight upon which the lateral thinking model is based:

> De Bono's research concluded that the brain is indeed a self-organizing system that routinely interprets inputs into patterns. It is not then inherently designed for creativity. However, if certain lateral thinking tools are applied, the brain can be encouraged or trained to become more creative. (Bailey, 2007, p. 46).

In 1970, De Bono published *Lateral Thinking: Creativity Step by Step*, detailing his lateral thinking model. Over the last 40 years, De Bono has continued to refine his theories and techniques, publishing numerous books and articles on related topics, and developing training materials, programs, and personnel to take his varied creativity and thinking courses to thousands of organizations and hundreds of thousands of individuals.

In 1985, De Bono published a second break-through book entitled *Six Thinking Hats* that extolled parallel thinking, "a technique for teaching the brain to look at a problem from a variety of angles" (Carter, 2007, p. 20). These six thinking skills (or "hats") are aimed at exploring ideas and generating better outcomes, and provides an alternative to traditional critical thinking that mainly analyzes ideas with argument and counter-argument.

Different Types of Thinking

One of De Bono's many contributions to the creativity field is his identification and development of three types of thinking – vertical thinking, lateral thinking, and parallel thinking. The best way to understand vertical and lateral thinking is compare and contrast them side-by-side:

> Rightness is what matters in vertical thinking. Richness is what matters in lateral thinking. Vertical thinking selects a pathway by excluding other pathways. Lateral thinking does not select but seeks to open up other pathways. … With vertical thinking one is trying to select the best approach but with lateral thinking one is generating different approaches for the sake of generating them. (De Bono, 1970, p. 39).

Other comparisons between vertical and lateral thinking include:

> Vertical thinking moves only if there is a direction in which to move, lateral thinking moves in order to generate a direction. … Vertical thinking is analytical,

> lateral thinking is provocative. … Vertical thinking is sequential, lateral thinking can make jumps. … With vertical thinking one has to be correct at every step, with lateral thinking one does not have to be. … With vertical thinking one concentrates and excludes what is irrelevant, with lateral thinking one welcomes chance intrusions. … With vertical thinking categories, classifications and labels are fixed, with lateral thinking they are not. … Vertical thinking follows the most likely paths, lateral thinking explores the least likely.… (De Bono, 1970, pp. 39-43).

Vertical thinking and lateral thinking, when practiced together, end up being one complete creativity "thinking skills" model. A completely separate way to view creativity in totality is through the parallel thinking model. In this model, De Bono describes six types of thinking (or "hats") that taken together, comprise creative thinking (just like the thinking skills model of creative problem solving (CPS)). The six types of thinking include blue hat thinking (process and control), white hat thinking (facts, information), yellow hat thinking (benefits of an idea), black hat thinking (weak aspects of an idea), red hat thinking (emotional or feeling), and green hat thinking (new ideas and creativity) (Carter, 2007, p. 20).

Description of the Model

De Bono's model of creativity can be described as disrupting linear pathways and creating asymmetric ones. All around us is vast amount of information, data, ideas, and images that we process through our five senses. Our brains are highly developed pattern-recognition machines, and thus process this information into a handful of recognizable patterns (De Bono, 1992, p. 151). Over time, these patterns form into dominant neural pathways that we tend to resort to automatically. If left unchecked, the brain's pattern forming tendency discourages creativity because thinking is instead channeled down dominant pathways.

The way to develop creative thought, according to De Bono, is to disrupt these linear pathways, and thereby discover asymmetric ones (ones that are not readily apparent in foresight, but are logical in hindsight). Rather than moving along the pattern in traditional logical, "vertical" thinking, the key is to use lateral thinking to move across the pattern and thus, to break out of the dominant pathway rut. Once outside of the dominant pathway, a person is free to experience different thoughts and hopeful reach some new, useful ones.

De Bono's approach to creativity is identify, develop, and use a number of techniques that help overcome the brain's pre-existing mental patterns and thus facilitate lateral thinking. In *Serious Creativity*, De Bono states that he will "be covering the three broad approaches to lateral

thinking: (1) Challenge; (2) Alternatives; and (3) Provocation" (De Bono, 1992, p. xii). But then he does little, if any, to explain the differences between the approaches or to develop a taxonomy of lateral thinking techniques, leaving the reader to figure out the connections (if any) between the approaches. Even though De Bono spends little time developing a satisfactory unifying theoretical framework (other than you need lateral thinking to "think outside of the "box" of confining mental patterns) in regards to his techniques, the techniques themselves can be powerful and effective.

The technique that most distinctly captures the essence of De Bono's model of creativity is his "provocation" technique. A provocation (abbreviated as "PO") is a temporary idea that is used to encourage new perceptions and patterns and is "used for its movement value" (De Bono, 1986, p. 58). Thus. the goal is to "move on from the provocation to end up with useful ideas" and the provocation itself is only a "temporary phase" (p. 58). The provocation serves to take us out of the comfort of an existing pattern (De Bono, 1995, p. 18).

For instance, if my focus (objective) is to improve a new car model, and my PO is "dolphin", I would think of ideas brought to mind by the word dolphin (sleek, fast, intelligent, dorsal fin, communicates with others), and then apply those ideas to the focus: intelligent cars, cars with aerodynamic fins, cars that communicate with other cars or traffic lights and so forth.

Many of De Bono's numerous techniques for applying lateral thinking are briefly described in the chart below:

Focus	"[F]ocus is a deliberate effort to pick out a new focal point." (De Bono, 1992, p. 92).
Creative Pause	"The creative pause is the willingness to pause during some thinking or discussion to pay creative attention" to what is going on. (p. 92)
Challenge	"The creative challenge simply refuses to accept that the current way is necessarily the best way." (p. 105).
Alternatives	"Is there another way?" "What are the alternatives?" (p. 119).
The Concept Fan	"We go from an idea … to a concept which becomes the fixed point for other ideas. But we also go from the concept to a 'broader concept,' which then becomes the fixed point for alternative concepts." (p. 129).
Concepts	"In general, it is difficult to work at the concept level. So it makes sense to work at the idea level and then keep 'pulling back' to find the concept. What is the concept here? What concept is being carried out by the idea?" (p. 139).
Movement	"The general 'sense' of movement means the willingness to move forward in a

	positive exploring way rather than stopping to judge whether something is right or wrong." (p. 153).
Random Input	"[O]btain a word which has no connection whatsoever with the situation and hold the two together. … From this juxtaposition we seek to develop new ideas." (p. 177).
Sensitizing Techniques	"The purpose of sensitizing techniques is to feed ideas into the mind in order to allow our thinking to take new and creative lines. … A 'stratal' is a number of unconnected statements put together solely to form a stratal. The purpose of a stratal is to sensitive the mind so that new ideas can come forward." (p. 184).

While most of De Bono's work is focused on generating ideas as part of the divergent stage of the creative cycle, some of his work deals with the convergent stage of creativity.

Harvesting	"In any creative thinking session, there are at least three purposes: 1. To find the magic idea; 2. To produce new ideas that can be shaped into usable ideas; 3. To stock the mind with a repertoire of concepts and ideas that may not be useful at the moment but that will enrich any future thinking on the same or related matters (and even on other matters). With poor harvesting, the second and third of these purposes is ignored." (p. 211).
Treatment of Ideas	De Bono reviews multiple ways of evaluating ideas including: quick rejection of ideas, shaping ideas, tailoring ideas, strengthening ideas, reinforcing ideas, take-up of ideas, comparison, faults and defects, consequences, testability, and evaluation. (pp. 216-223).
Formal Output	De Bono suggests the disciplined use of time, focus, and technique enhances creativity sessions. In addition, the output of the session should be formalized into writing that includes the focus, concept, and idea for all the output in the sessions. (pp. 224-228).

Analysis of the Model

A strength of De Bono's model is that it provides a logical, common sense approach to creativity. In addition, there is minimal amounts of jargon to learn other than a few words which De Bono invents (vertical, lateral, and parallel thinking; provocations, etc.) In essence, his model states that the brain organizes information into patterns, which needs to be disrupted in order to encourage novel ideas. Vertical thinking tends to perpetuate the existing patterns. In contrast, lateral thinking provides numerous opportunities for disrupting existing thinking patterns and moving towards new ones. De Bono's lateral thinking becomes an effective complementary pairing to "vertical" thinking.

A second strength of De Bono's work is its accessibility to lay persons. Once De Bono teaches the difference between vertical and lateral (and parallel thinking), a lay person can quickly master some or all of his techniques and implement lateral thinking as a way to disrupt

vertical thinking. Once his techniques are applied, some new ideas quickly follow and thus, De Bono's work continues to gain support and widespread commercial appeal and significant though anecdotal support.

A third strength of De Bono's work is its explanation of the need for creativity. While the trite phrase "think outside of the box" is in some circles synonymous with creativity, De Bono's theory does explain that there is actually a box (the confines of the mental patterns organized by the brain) and then proceeds to give effective tools for "thinking outside", or rather across, those patterns. De Bono's model (mental patterns) also explains why people new to a domain (not limited by mental patterns of perception) often create more break-through ideas than experience practitioners within the domain (limited by experience).

A limitation of De Bono's model is its inherent squishiness. In contrast to other creativity models, De Bono's model places little emphasis on the different aspects or phases in solving a problem (in contrast to the Four Sight model) or meta-cognition (where am I in this process?). Thus, his model, while effective at generating new ideas, is difficult to apply in a coherent, systematic fashion. In addition, while his techniques could be used during any phase of CPS, they are most effective as ideational techniques.

Another limitation of De Bono's work is its disconnected nature. While De Bono creates overarching framework regarding why creativity is needed, he spends little time developing theoretical connection s between the different techniques and the model. Thus, one is given a number of tools to "think laterally" but De Bono spends little time trying to explain or categorize lateral thinking to explain the different types of lateral thinking. De Bono likely considers this to be unimportant because, within lateral thinking, "[c]lassifications and categories are not fixed pigeonholes to aid identification but signposts to help movement." (De Bono, 1970, p. 43).

The significant limitation of De Bono's work is the dearth of research in support of his work in spite of the fact that his work has reached a wide commercial audience. While there is some literature that either applies or supports lateral thinking, not a single study was found conducting experiments whether lateral (or parallel) thinking was effective as a creativity enhancement tool (in contrast to CPS which does has this support in the research). A possible explanation for the lack of research supporting De Bono's models may be his personal tendency to portray himself as a distinct creativity brand and creator of the lateral and parallel thinking models, which makes it difficult to discern where the man ends and his models begin. In

addition, De Bono's commercial showmanship may have discouraged researchers from studying whether his training methods can produce lasting, measureable increases in creativity.

Supporting the Model

A significant strength of De Bono's work is the sheer volume of books on the subject and the availability of training on his programs and techniques. De Bono has authored at least 75 books, several training programs, and trained hundreds of certified trainers worldwide, though the exact nature of the training programs are difficult to determine as there are conflicting claims among magazine articles and internet websites (De Bono's and others). Some of De Bono's training programs including Six Thinking Hats, Lateral Thinking, CoRT Tools, DATT – Power of Perception, Simplicity, and Six Value Medals (www.edwarddebono.com, 2012).

While there was not much (if any) research explicitly assessing the validity or reliability of De Bono's models, there a handful of articles that recognized the value of his ideas and used them in other areas. For instance, Tanner applied De Bono techniques in the consumer marketing and product development contexts including two provocation techniques (random word and escape) to find new applications for existing products (spandex) and to shorten the time-to-market for a new product (1993, p. 22).

Other favorable references to lateral thinking include where Kuesten states that lateral thinking can be its own leadership style and that a "lateral leadership style … includes soliciting suggestions, delegating, treat staff as colleagues, looking for ideas from everywhere, using lateral thinking, and sharing exposure with the team" (2008, p. 35). Finally, Braunstein puts lateral thinking in a historical context and posits that the information overload in past forty years has increased the value of lateral thinking (ability to form connections among remote associates) and its prevalence as the natural result of exposure to huge amounts of information (1999, pp. 15-17).

In summary, Edward De Bono's lateral thinking model has good explanatory value regarding why creativity is required and then provides valuable tools for generating ideas on demand. However, the lateral thinking model unfortunately lacks research in support of its validity and reliability. In addition, the lateral thinking model is relatively formless and does not provide a clear framework for solving challenges (in contrast to CPS or other models).

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