Chapter 23

New Paradigm of Creativity:
From Newtonian Mechanics to
Quantum Mechanics and Higher
Education Development

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ABSTRACT

The author aims to provide an alternative perspective on creativity in order to accelerate a paradigm shift in creativity in higher education. The perspective would enable every single person to extract the full potential and to contribute to society. Due to the idea of science: reproducibility, the main goal of research has been finding an ultimate solution that would be applicable to every single person. This idea comes from Newtonian mechanics; or, in other words, cause and result relation, that a specific factor causes a specific outcome. The problem of this idea is that Newtonian mechanics is designed for such objects as an apple and a car. Obviously, human thought, the main source of creativity, is not an object. This fact suggests the necessity of alternative approach. The author proposes a different perspective to change a paradigm of creativity in higher education.

INTRODUCTION

The purpose of this chapter is to propose an alternative perspective on creativity, the origins and enhancement of which have been a great concern, but have remained somewhat mysterious. The major mistake that we have made in thinking about creativity is that we have tried to apply Newtonian mechanics to human thinking and to understand it in terms of observable causes and effects. It is understandable that we still approach creativity in terms of Newtonian mechanics, with its focus on the observable world, in like manner as we approach physics and economics, because we instinctively tend to believe what we can see.

Indeed, interpretation is at times more important than discovery itself, because the way in which we see the world determines how we think that it should be. Great discoveries are often underestimated or even
ignored for fear of altering the way in which people see the world because new perspectives represent a potential challenge to existing beliefs. In this sense, the promotion of creativity might better be advanced, not by discovering new scientific facts or introducing new methods, but by providing opportunities for people to examine critically their current beliefs and encouraging them to consider other perspectives.

Therefore, the author’s main goal in writing this chapter is to offer just such an opportunity to reconsider what creativity is, its origins and how it can be fostered. The key concept for this chapter is that “The whole is greater than the sum of its parts.” For example, suppose that one’s current perspective is “A.” Acquisition of a new perspective, “B,” actually creates a new perspective toward “A” as well. Thus, learning “B” at the same time establishes another new perspective “C.” This chapter represents an attempt to bring about a perspective “C” by suggesting a perspective “B.”

BACKGROUND

For a long time, unlike other subjects, the research in creativity has not shared the common awareness that even the definition of creativity is different from one discipline to another. In the early 20th century, thanks to Werner Karl Heisenberg, science has experienced a paradigm shift from Newtonian mechanics to quantum mechanics. What is implied by the quantum mechanics was completely contradict to what people had believed. However, this great shift has had a huge impact on different fields including psychology and brain science. In the field of psychology, different approaches have been tried to understand what the human mind is and to figure out how it works. Before this paradigm shift, psychology was dominated by the idea of structuralism mainly led by Wilhelm Wundt. In short, structuralism is applicable to the idea of Newtonian mechanics with a premise. That is to say it is possible to deconstruct mind into different parts applying the cause and result relation. However, as the science experienced the paradigm shift, other approaches, like Gestalt psychology, which focuses more on the holistic function of mind, have emerged. From the late 20th century to early 21st century, cognitive science, which is interdisciplinary scientific research on the human mind and its function, has flourished applying the latest scientific facts in different fields. However, when it comes to creativity, due to its unclearness, the paradigm has been trapped in the idea of Newtonian mechanics. Especially, the foundation of current education system was designed in the industrial era with its main object reproducing people that would fit with social values rather than enhancing each individual’s talent.

MAIN FOCUS OF THE CHAPTER

Getting straight to the point, this chapter will argue for a new paradigm of creativity that can be described with the following equation: iT=bT: (Identity)(Thought)=(Belief system)(Thought). If creativity exists outside of the cause-and-effect model, we need to replace Newtonian mechanics with quantum mechanics in order to make any serious progress. Whereas Newtonian mechanics applies to objects, quantum mechanics applies to states. The change from a Newtonian to a quantum approach enables a paradigm shift in the perception of creativity. Creativity as we know it is dead. This is the rebirth of creativity. The objective of this chapter is not to find an absolute formula to make all of humanity significantly more creative, but to propose an alternative approach and to change the assumptions that underlie current ways of thinking about creativity.
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