

## Barriers to Personal Creativity and Their Causes

Yun Yao Gu<sup>1, a</sup>, Siyi He<sup>2, b</sup>, Xinye Lin<sup>3, c</sup>

<sup>1</sup>Department of Industrial Design, Rhode Island School of Design, 2 College St, Providence, US, 02906

<sup>2</sup>Department of Landscape Architecture, Rhode Island School of Design, 2 College St, Providence, US, 02906

<sup>3</sup>Department of Architecture, Rhode Island School of Design, 2 College St, Providence, US, 02906

<sup>a</sup>ygu@risd.edu, <sup>b</sup>she@alumni.risd.edu, <sup>c</sup>linxinye0@gmail.com

### Abstract

The growth of creativity is closely related with the identification with and separation from complexity perception during involvement in dynamical systems. This paper discusses the three main limitations hindering the formation of personal creativity: individual factor from self; inter-personal factors from social interaction; organizational factors from industries, during which analysis along with explanations are concluded. This analysis elaborates why those limitations exist and become boundaries for individuals regarding to the development of meaningful and fulfilling careers. Then, cases and proofs from various cognition researches are utilized to construct the definition and clarify the problem domain. Finally, implications based on research results are outlined to bring forth practical solutions that are both new and applicable, and to call for developed proposals to address this issue.

### Keywords

**Creativity limitation, self-cognition, social activities, organizational impact.**

### 1. Introduction

Creativity, as a form of enhancement to eliminate complexities, has been more and more emphasized. Thus, with the intention of educating students and boosting their creative thinking ability, the current education system turns out to tackle problems which may arise during their lives. However, the growth of creativity is closely related with the identification and separation from various dynamical systems full of complexity. For during personal creative thinking growth, individuals are unavoidable to confront with multiple limitations coming from both internal and external systems.

To accelerate creative thinking, the understanding of limitations - boundaries in creativity formation - has become an integral part of education, helping individuals narrowing down complexities during work and life, and generating novel solutions as well as perspectives. This paper is going to focus on the dissuasion of the creativity limitation, including the definition of creativity limitation itself, inner factors and outer factors.

### 2. Background

It is well acknowledged that limitations have been regarded as parts of human experience. In this sense, if properly acknowledged and understood, they will turn out to be beneficial to both personal growth and organization improvements, thus forming a more thorough understanding of reality and more effectively accelerating the success of negotiation.

#### 2.1 Limitation acknowledgment from chaos theory

Supposing that people can be regarded as systems full of complexity and dynamics, and then, personal growth, especially in terms of career development, depending mainly on their limitations. Thus, the understanding of the nature of their interior system as well as the boundaries comes to the vital issue.

Two researchers named Bright and Pryor proposed that inside of complicated systems similar to individuals' strange attractors, there exists a difficult and sometimes arduous process to precisely distinguish the limitations. Generally speaking, it might turned out to be a very time consuming process to search identity in work and other purposeful activities. [1].

Chaos Theory, published by Bright & Pryor [2] in 2005, has been rapidly applied by researchers as new approaches of study and interpretations of complexity. Chaos theory has been taking an active part act as a conceptual instruction for various approaches and explorations of complex systems for quite a long time, such as dynamical system theory, self-organization, fractal geometry, catastrophe theory, theory of dissipative structures, and complexity theory [2]. Chaos theory also studies on a wide range of open, nonlinear, and dynamic systems continually adjusting to their environment. There is an extremely sensitive manner inside to their initial conditions, which is also known as the popular term "Butterfly Effect" [3]. To be specific, while the slight differences is that in its starting point, there will be a very large difference in their outcomes, which therefore means the system is highly sensitive and being nonlinear. The nonlinear system shows its instability of changing radically throughout the loops of changing and feedbacks. In certain senses, nonlinear systems behave in a regular and cyclical manner until something sets them off; a critical point is passed and suddenly they go chaotic. This critical point where a system changes character of the motion is a bifurcation point, and the states of chaotic motion are attractors.

Being interpreted as "self-organizing dissipative structures," creativity, in fact originate spontaneously in far-from-equilibrium conditions. Although these conditions constantly exchanging energy and information with their environment, they still continuously create certain bifurcation points of instabilities and fluctuations, thus transforming themselves into increased order and complexity.

It is said that there exists a wide application in physical, chemical and mathematical problem solving of nonlinear dynamics, fractals, and self-organization. Currently, it is also taking an active part in integrating almost everything, from psychology to neuroscience, from economics to social dynamics. Whereas, some studies show that there exists distinguishes between divergent thinking from convergent, analytical thought based on the dimensional complexity of ongoing activity, which reveals that chaos, in other words, irregularities, will lead to complexity, turning life and intelligence possible [4].

To conclude, discovering and setting limitations, is not merely regarded as an approach to find ourselves and our place in the world, but also an unique process of both identifications with and separation from other complex dynamical systems in our world.

## **2.2 The classification of limitation**

Perceiving information either individual or mutually and interacting with organizations are the key factors in limitation formation. Increased as we make efforts to acquire knowledge, there still turns out restrictions in getting completely informed in the face of this fact is warranted. Besides, in reality, individuals are constantly involved within complex dynamical systems featuring interactively informative, and meanwhile, sensitive to change, which in turn causes unpredictability and phase shift transformation.

In this manner, it is essential to conclude that limitations, as experienced by individuals, could either come into being as from within the system or outside the system.

## **3. Analysis of causes to limitations**

### **3.1 Individual factor from self-limitation**

Individually, people might find it arduous to precisely distinguishing due to the fact that the nature of complex dynamical systems are known for constant changes and unpredictably becoming non-linear. However, self-limitation usually relates a lot with linear way of simplifying complexity. And, in real life, it is never too easy to avoid focusing on limited number of factors. Taking dieting as an example,

it has been regarded as an unhealthy process with calories limitations, which more often causes negative results in the long term regardless of being temporarily effective. Similarly, self-limitation in careers can have unpredictable longer-term effects.

Besides, limitations are also commonly imposed to find order in complexity, which means some forms of self-limiting beliefs, may turn out as motivations of with drawling behavior, therefore increasing possibility of self-limiting behavior. For instance, it might lead to demotivation and pessimistic thinking about their career development if employees are passed for being promoted, which in turn might cause withdrawing and underperforming at work. Without any doubt, this self-limitation can result in another reaction to limitation, namely denial [1].

In particular, with the denial of failure, self-limiting behavior can lead to strong attachments to the belief of conservatism, which limits the courage of being creative and the spirits of exploration for reasons of avoiding taking risks.

Moreover, since the limitations of human knowledge and control are always far from being steady and certain, individuals are far from being completely informed or insightful, and humility in the face of this fact is warranted [5].

### 3.2 Inter-personal factors from social interaction

Supposing that people can be seen as complex and dynamical 'systems' and the identity of those 'systems' is reliant upon their limitations, it is imperative to be connected to the right 'systems', which usually in other words mean resourceful 'systems'.

When trapped by complexities within a limited individual system, it is vital for individuals to be open-minded and be more sociable to embrace complexity as well as accepting new perspectives from outer systems, which helps with imposing limitations to make personal complexity more manageable.

It is all known that exchanging information or ideas has been vital factors to inter personal creative growth. What's also worth noticing is, during mutual interaction, the exchange of information may form both positive and negative impacts on induvial or towards the entire interaction group. Positively, this might react as cognitively stimulating group members to develop more ideas, especially if varied viewpoints are discussed. However, negatively, conflicts may arise when such various information come into existence, undermining group performance if not managed properly.

In purpose of examining the positive effects of exchanging of ideas in brainstorming, this research proves the effectiveness of cognitive association in perspective of the brainstorming process, in other words, searching one's memory for relevant ideas [6].

For example, brainstorming incorporates how to search knowledge out of various categories of problems. One person could come up with an idea firstly which lies into a category. Then the others may stay with this category until someone feels another has exhausted its potential. At that point, there will be a search for a new category to tap. Therefore, it is clearly that group brainstorming is beneficial to creativity growth for stimulating people to think in a more thorough way. Besides, stimulations can come into existence when other related ideas combined with the original ones.

In terms of the negative impacts to individual creativity growth, researching groups led by scientist named Stroebe pointed out that the inability of idea expression has become critically related with relationships or interactions inside group members [8]. For instance, the necessity of expressing ideas in turn will undeniably limit people's flexibility in idea expression. Meanwhile, it is also worth noticing that participants are easily lost in waiting and decision making process since it tends to brainstormers from converging the more and more ranges of ideas. Negative reactions from others might also hinder the sharing and communicating of ideas. In this sense, it is reasonable to believe that groups in low social apprehension may tend to be more creative. The tendency may be increased along with the augments of the group sizes, where individuals may feel free to change their minds since they feel less accountable for their thoughts [9].

Last but not least, other factors such as psychological safety, trust, and support etc, could still be positive to individuals in an organization as well as those working in the team [10]. This suggest an

interesting fact that the group creativity has a lot to do with the understanding the collaborative creativity process.

### 3.3 Organizational factors from industries

Organizational limitations can be varied, such as cultural, financial, social, educational, political, medical and environmental limitations, all of which forms various influences on either individuals or organizations. Since creativity has become vital to organizational success, as well as capabilities of managing accelerated changes, which in results requires a more elevated form of creativity and innovation.

For example, forming motivational environment can promote employees' creativity for a more promising and sustainable business, to survive in the competitive environment against others. Motivation is acknowledged as the essential component in creative activities for both individuals and organizations. However, motivation sometimes is neglected by supervisors, human resource recruiters, and organization leaders. For example, the opening of Disneyland in Hong Kong in 2005 set up an opportunity for creative evolution in the hospitality industry. It brought some impetus for both human capital as well as employees for inspiring themselves. This new program fostered the employees to gain insights that they could develop creative culture while touring and the guests would gain the creative experience in turn [11].

At the same time, creativity is the most important part since organizational limitations interact or influence with each in complicated way and never force linear results. For example, in terms of political and economic factors, factory workers still lose their jobs though they perform high level motivations at work, due to the macro-economic fluctuation. Conversely miners may suddenly feel as though they are benefiting from global financial and energy systems, for temporarily raised wages, but these kinds of phenomenon are well beyond their own capacity to control [12].

## 4. Conclusion

It is universally acknowledged that limitation is a common existence any comprehensive account of personal or organizational development, which provides clearer practices to improve acknowledgement and work creatively.

Statistics shows, during personal growth and development, the desire for "success" is more valued than to understand personal limitation and failure. The searching result of "Career Success" in Google search has 1, 370,000 records, while "Career limitations" has 24,300 records and "Career failure" has fewer at 21, 600 records [13]. As it points out, it appears no individuals are willing to know about their failures. From this point of view, the understanding of ones' limitations is apparently important for personal development, which might also be eliminating limitations for social interactions between groups, and accelerating organizational growth or industrial growth.

With the terms in Chaos Theory, limitations do not block creativity, instead, they focus it more intensely. It is the limitations that challenge us to live better lives and to deal with issues with courages and creativities.

To conclude, identifying those limitations hindering complexity perception should be taken as a prerequisite to improve creative growth, as well as elevating the existing situation in industries. It also relates with approaches for business administrators to elevate organization managements, to create motivations and eliminate limitations, to boost employee creativity, which has becoming more and more vital to the longevity of the whole organization or business community.

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