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Creativity East and West

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Abstract

This thesis is about the creativity in the East and the West, but I will mainly focus on the view of creativity in ancient Greek philosophy and Chinese philosophy.

In the first chapter, I will explore the concept of creativity, the history of creativity, and the research on creativity, including the creativity research in psychology and philosophy, which will set the stage for further disscusion. Then in the second chapter, I will start from Plato's dialogue, *Ion*, and explore the traditional theory of creativity in ancient Greek philosophy, and claim that their creative ability is inspired by divine being. After this, I will show people's view on creativity has undergone a process of demystification. During this process, people gradually began to resist the divine source and explore the world individually and independently. Meanwhile, the meaning of the concept of creativity has become broader, since it is not limited to poem any more, but it can be applied to other fields, such as art, science, and education.

In the third chapter, I will turn to the modern creativity theory, including the lateral thinking and emotional creativity, and explore how to be creative with lateral thinking techniques and how to improve creativity through emotion regulation.

After the examination in the West, I will turn to the theory of creativity in Chinese philosophy, by focusing on classical works in Daoism and Confucianism. In the fourth chapter, I will explore the view of creativity in philosophy of Daoism. I will claim that the creativity in Daoism is natural and cosmological, and there is no external creative source, so I will claim it is self-creativity, which is distinct from the ancient Western creativity pushed by external divine power.

In the fifth chapter, I will argue that the creativity in Confucianism is evolutionary, which is unlike the revolutionary creativity in the West, and I will

propose the way to become creative in Confucianism based on its classics, *Analects*, and then will explore the creativity principle and how the agent cultivate their creative ability in Confucianism.

In the conclusion, I will summarize the difference between the creativity in East and West, from the perspective of the source of creativity, nature of creativity. I will claim that the source of creativity in ancient Greek philosophy is divine being, whereas there is no divine source for creativity in Chinese philosophy, therefore, the creativity in the West traditionally is inspired creativity, while the creativity in the East traditionally is natural and cosmological creativity. In addition, the concept of creativity in the West is revolutionary, whereas the concept of creativity in the East is evolutionary and the moral function of creativity is also addressed in Chinese philosophy.

Lay Summary

Our culture is obsessed with creativity, and we human beings have already experienced the benefits of creativity. Therefore, how to be creative, and how to cultivate creativity have gained a lot of attention and discussion. However, in philosophy, this topic did not gain enough attention especially compared with the large amount of research in psychology.

To improve this current situation, this thesis aims to examine creativity in the East and the West and make a comparison between them. To achieve this goal, the thesis is divided into five chapters. It opens with a brief introduction of Western concepts of creativity, including its root in ancient Greek philosophy, particularly in Plato's dialogue, its development in history, and the research on creativity in domains of psychology and philosophy. This chapter will set the stage for the comparison with Chinese views of creativity. In chapter two, the ancient divinely inspired creativity will be discussed, including creativity and inspiration, creativity and skills, creativity and rationality, and creativity and imagination. After the divinely inspired creativity, the modern individual creativity including lateral emotive creativity and emotional creativity will be examined. The main difference between the concepts of ancient divinely inspired creativity and modern individual creativity is that the former believes that the creator is God or gods whereas the latter attributes creative ability to human beings.

In the East, I will mainly focus on the Chinese philosophy, particularly the Daoism and Confucianism. Through introducing concept of creativity and its philosophical root in Daoism, I would like to claim that the creativity in Daoism is natural creativity and there is not an outside divine entity controlling the creative process. Besides the creativity in Daoism, the creativity in Confucianism will be discussed, and I will claim that the creativity in Confucianism emphasizes moral and social values and the connection between the old and the new. These two kinds of ancient Chinese creativity, natural creativity and moral creativity, will be compared with the two kinds of

Western creativity, divinely inspired and lateral emotive creativity in the last part.

The conceptions of creativity held by people from the East and the West share some similar core characteristics, which include being novel, original and valuable. However, there are some distinguishing differences. We can see the differences from their philosophical roots. The conception of creativity in ancient Greek philosophy is closely associated with divine inspiration, whereas in Chinese philosophy, the conception of creativity is closely associated with nature. Additionally, the Western conception places more emphasis on personal characteristics of a creator and the revolutionary aspect in creative products, whereas the Eastern understanding of creativity stresses more on the social and moral contribution of a creative individual, and value more on the linkage between current and past which shows its evolutionary aspect.

Introduction

As we all know, the development of human civilization has been driving by creativity. There is no doubt that the development of human civilization benefits a lot from creativity, without which it is impossible for us to live in such a modern society. However, there is little research on creativity in domain of philosophy. On the contrary, there is a large amount of work in the domain of psychology on creativity, which has provided rich resources for philosophical research on creativity but has been neglected by philosophers (Gaut 2010).

However, have we ever seriously thought about what creativity is? What are the origins of the concept of creativity? Do people in the West and the East have same understanding of creativity? Does the concept of creativity have the same roots? Is moral goodness necessary in the conception of creativity?

This thesis will cover all these questions through looking into creativity from the perspective of philosophy in the East (such as Asian cultures) and the West (such as European and North American countries) and make a comparison between the concepts of creativity within Eastern and Western contexts. In the West, there are usually two kinds of answers for the question of "where creativity comes from". The first is that creativity has a divine origin, which means all creativity emanates from one God or from the endless inspiration of many gods. The second emphasizes individual creativity which is opposed to divinely inspired creativity, and it is based on the notion that creativity originates in the human mind and in the human's ability to bring something new into being (Wight, 1998).

The notion of divinely inspired creativity emerged earlier than the notion of individual creativity, and the origins of the modern Western conception of creativity can be traced to the notion of divinely inspired creativity. There are two cultural roots for this notion of divine creativity. The first is the Biblical idea of God's creation. Creativity in this tradition means "to bring into being"

or "create something from nothing" (*ex nihilo*). The second is the ancient Greek expression of "the inspiration from the Muses" (Tatarkiewicz, 1977; Weiner, 2000). According to Biblical tradition, humans do not have the ability to create something new, and the resources of various entities, including human beings, are from God's creation. The philosophical speculations on the origins and nature of things were enormous and diverse among ancient Greek philosophers, and there are many gods in ancient Greek culture. Many ancient Greek philosophers, including Plato, claim that human activities are controlled by the will of gods. Even art works from artists are taken as mere imitation of things already existed in nature. For example, in Plato's dialogue, *Ion*, the great works of poets actually are not from poets themselves, rather from divine Muses. This divine tradition show the creativity comes from an entity outside human beings, and it was dominant in the history for a long time, probably until the Renaissance or the Enlightenment. The concept of creativity has undergone a process of demystification. Under the influence of the Enlightenment, people's understanding of creativity changed from an emphasis on divine inspiration to an emphasis on individual creativity. The switch to the concept of individual creativity is the key to contemporary Western notions of creativity.

There are many contemporary Western theories of creativity, among which one of the most popular is the lateral thinking put forward by Edward de Bono. Lateral thinking creativity is different from the traditional and logical thinking way since it indicates a non-linear thinking way, and emotive judgment also plays an important role in it. Therefore, emotional creativity is examined in chapter three, including the role of emotion plays in creativity, the relation of emotion regulation and creativity.

After the research on creativity in the West, let us turn to the creativity in ancient Chinese philosophy, particularly the Daoism and Confucianism. Different from the Western tradition, there is no fully personalized God in the context of ancient Chinese philosophy. The earliest document on the theory of creativity is the *Book of Changes*, namely *Yi Jing*. According to this book,

the change and interaction of *yin* and *yang* created the world. The concept of *yin-yang* was interpreted as *dao* in later commentaries on *Yi Jing*, and the endless change of *yin-yang* represent *dao*. Both *Dao* and *yin-yang* represent the ultimate force of nature and the ultimate origin of everything in Daoism. The nature of *dao* is to produce all goodness, which is clearly manifested in Laozi's *Daodejing*. The way to achieve creativity in Daosim for human is *wuwei (non-action, effortless action, never overdoing)*.

Beside the Daoism, Confucianism has been the mainstream and official philosophy in China for about two thousand years. Many scholars hold the belief that Confucianism is opposed to creativity, since Confucius himself highly valued tradition and encouraged his followers to learn from tradition. However, Confucius actually put emphasis on the connection of the old and the new, rather following the tradition blindly. Confucius himself was creative in teaching in his time, and put forward the principle of creativity, *yi (appropriateness)*. In Confucianism, creativity is always linked with morality, which means a creative person should not only satisfies himself but also should devote himself to the society as a whole. In Confucian philosophy, the process of creativity is the process of self-cultivation with the principle of *yi*.

By examining the creativity in philosophy of Daoism and Confucianism, we can conclude that there are two kinds of creativity: the natural creativity and the moral creativity. The natural creativity in Daosim is self-realized and it is a kind of inner reality since it does not depend on external divine being. The creativity in Confucianism put emphasises on moral and social aspects, with the principle of appropriateness.

Through the research on concepts of creativity in ancient Chinese philosophy and ancient Greek philosophy, we can see the differences between them. In terms of the source of creativity, there is an external personalized God in Western tradition, whereas in Chinese tradition, there is no outside divine entity and nature exists on its own. According to the creation of God, everything was brought into existence from nothing, as a result, this idea

makes revolutionary novelty a necessary feature in the Western conception of creativity. On the contrary, Chinese concept of creativity emphasis more on the moral and social dimensions and the connection between the old and the new, which makes the concept of creativity in the East looks more evolutionary.

Chapter 1 Researching creativity and creativity research

What is creativity? There are many definitions of the term, and they may vary from one to another. A great deal of research on creativity has been conducted in the domain of psychology, but very little in the domain of philosophy. There are countless accounts of what creativity is and how creativity research has developed (see, for example, Mayer 1999; Sawyer 2012). From those accounts, we can see that scholars have tried to make sense of the concept of creativity in order to find ways of fostering creative thinking. However, there are various opinions and disagreements among researchers in relation to some of the core issues surrounding creativity. For example, what should be taken as the conditions for the concept of creativity, and what qualities can make something creative?

In this chapter, I aim to clarify these questions and examine the development of people's knowledge of creativity, and the creativity research on psychology and philosophy. First, I will look into the concept itself. By examining the various definitions, I will clarify the most distinguished features of creativity. This will be followed by a brief history of the concept, and a crucial aspect of its history is how it has evolved over the years. Through the research on the history of the concept, I will claim that people's knowledge of creativity has undergone a process of demystification. In the final section, I will focus on the existing body of research on creativity in the domains of psychology and philosophy.

1.1 The concept of creativity

Creativity is a topic that has been overlooked for many years. By tracing the evolution of the concept of creativity over the past 2,000 years, we can find evidence of its existence in history. At different times, people have had different understandings of what creativity actually is; therefore, this demonstrates that there are different conceptions of creativity.

In the *Handbook of Creativity* (Sternberg, 1998), scholars offer many introductory definitions of creativity. Gruber and Wallace ask, 'what do we mean by creative work? Like most definitions of creativity, ours involves novelty and value: The creativity product must be new and must be given value according to some external criteria'. Martindale states that, 'A creative idea is one that is both original and appropriate for the situation in which it occurs'. Lumsden claims that, 'creativity is a kind of capacity to think up something new that people find significant'. Feist notes that, 'psychologists and philosophers who study the creative process, person, and product are in consensus about what is creative: novel and adaptive solutions to problems'. Lubart sates that 'creativity from a Western perspective can be defined as the ability to produce work that is novel and appropriate'. Boden claims that, 'creativity is the generation of ideas that are both novel and valuable'. Nickerson notes that, 'although not everyone considers it possible to articulate clear objective criteria identifying creative products, novelty is often cited as one of their distinctive characteristics, and some form of utility – usefulness, appropriateness, or social value – as another'. Additionally, other scholars give their definitions of creativity: creativity is the ability to produce work that is both novel and appropriate (Sternbergh and Lubart 1996); Kaufman and Sternberg (2007) think that most definitions of creative ideas have three components: creative ideas have something new within them; they need to be of high quality; and they also need to be appropriate to the task at hand. These definitions of creativity define it as resultant products or ideas that are new, valuable or useful. In these definitions, we can clearly see that there are two common features within the concept: novelty, and usefulness or value.

Novelty is one of the necessary conditions for creativity, but novel things can be bad or worthless. Therefore, in order to exclude such cases, most scholars have emphasised that creative products should have value. For example, Boden (2004, 1) claims that creativity is 'the ability to come up with ideas or artifacts that are new, surprising and valuable'. What kind of value

does creativity have? Creative ability has instrumental value, since it can work as a means of producing good things, such as scientific discoveries, new technologies and wonderful artistic works. As well as instrumental value, creativity also has a 'final value', i.e. the value of something as an end, or something that is valuable for its own sake as opposed to being valuable instrumentally (Gaut 2008, 126). If we consider a blind or extremely poor painter who can no longer create works because of his internal or external circumstances, do we still consider his creativity to be valuable? The answer seems very clear. Although we can acknowledge that it is a pity that the painter is now not able to exercise his creative ability due to his physical problems or impoverishment, we can still think highly of his creative ability, which means that the creative ability has an intrinsic values of its own.

Therefore, creativity has instrumental and intrinsic values. However, these values are conditional, and we should celebrate creativity in a more careful manner, because not all exercises of creativity are good. For example, creative terrorists can make the world much worse through their creativity, by developing more dangerous weapons or torture instruments. In this scenario, it would seem that creativity is no longer valuable; rather, it becomes very bad, and also threatens the definition that creative products should be valuable (Gaut 2008,127). Gaut provides a solution to solve this problem, which is to distinguish between something being good, and something being good of its kind. For example, a creative torture instrument is a good torture instrument in the sense that terrorists can use it to torture people; in this sense, it is a good torture instrument, but it is not good. Whether a product is creative or not, we should see if it is good of its kind. Therefore, creativity is the ability to produce things that are new and valuable examples of their kind. This means that the value of creativity is conditional; it is valuable only when the type of creative product is valuable, such as a medical instrument rather than a torture instrument. We usually value creativity from an instrumental perspective, but we also value it non-instrumentally; why is this the case? One explanation could help us to answer this question: creativity shows a

kind of freedom. Creative people are usually not bound by the conventional thinking routines that constrain us in many ways. We think being creative is one kind of ability to stay away from those conventional routines and look for better solutions. Therefore, creativity has final, conditional, instrumental and non-instrumental value.

Are novelty and value sufficient for the definition of creativity? Many philosophers have argued that it is not sufficient to simply take creative output as the condition for all creative acts. The relationship between originality and creativity may help to answer this question. On the one hand, something that is original is not necessarily a product of creativity, since the result can be produced by accident. On the other hand, even some activities that aim for originality seem insufficient. For example, a mechanical procedure that leads to a new discovery is not particularly creative.

Additionally, many evil but useful and novel weapons deliberately invented by criminals for war can be creative. Therefore, when we define creativity, we should not only consider creative products. Other additional conditions should be required for the concept; for example, the process involved in creating a item should be considered, and the right type of creative process should involve intentional agency. Therefore, an adequate definition of creativity should also involve the creative process (Gaut and Kieran 2018, 3).

Although most definitions of creativity focus on creative products and ignore the creative process, a number of psychologists and philosophers have discussed the creative process. Gaut (2003, 2010, 2018) claims that the right type of creative process involves agency, and also the agent's flair. The agent must undertake the creative process in a rational way, with purpose, and be capable of evaluating the ongoing creative process, making the necessary judgments required to continue or change, or even stop the process. Therefore, this type of creative process involves intentional action, and the creative products are the result of the agent's rationality. Amabile (1996, 35) argues that the right type of creative process must be heuristic

rather than algorithmic. Campbell (1960, 1965) and Simonton (1999, 2009, 2014) argue that the right type of creative process should be blind, rather than sighted, which means that it should involve random possibilities. The reason for this is that creativity does not working in a linear way – it is unpredictable. Kronfeldner (2009) holds a similar position, suggesting that there is no routine or mechanical process for the right type of creative production. In addition, it must involve spontaneity, which means that unexpected events or products can occur during the creative process, and the whole process can sometimes be removed from the control from the creative agents and show some degree of independence. In addition, Boden (2004, 2014, 2018) distinguishes different types of creativity and surprise. She suggests that creative products must be surprising and that there are different processes that can be used to generate surprise. Boden defines creativity in terms of conceptual space, stating that there are three different types of creativity related to this: combinational creativity, exploratory creativity and transformational creativity. Each of these is categorised by one type of surprise and requires a distinctive process.

In addition to the creative process, which we should not ignore, we should also be aware that creativity has different types. The most influential discussion on this distinction is presented by Boden, who differentiates between psychological and historical creativity. She claims that, if someone creates something surprising and valuable, which is new to them, we can take this as psychological creativity. In this case, it makes no difference whether anyone else has previously had the same idea. However, if the new idea is not only new to the person who has suggested it but also new in history, we can take it as historical creativity. In this case, no one else in history has previously suggested the new idea, and this historical creativity is a special case of psychological creativity (Boden 2004, 2).

Using these definitions of creativity and its different types, we can see that there are several common features of the concept, which are shared in both the philosophical and psychological research on creativity. Many definitions

of creativity are result-orientated. Consequently, people generally think that creative products should be new, original and valuable. However, novelty and value are not sufficient to form a comprehensive understanding of creativity, if there are no constraints on the process. Otherwise, any story about the process could be creative; even though some of the products created may be original and valuable, the production process or activity might not be creative, or the original and valuable creative products could have been produced by accident Gaut (2009). Therefore, when we examine what creativity is, we should do so from a more comprehensive perspective rather than focusing only on one type of creativity or product.

1.2 History of the concept of creativity

For a long time there was no appropriate name for creativity; however, understanding of the concept has undergone significant evolution of thousands of years. The pre-Christian understanding of creativity was originally associated with mystical powers, which influenced our knowledge of creativity for centuries. A number of scholars suggest that the earliest Western conception of creativity was probably the story of the Creation (Boorstin 1992; Nahn 1956), in which the artisan was doing God's work on earth. Boorstin (1992, 42) writes that:

> For man's awareness of his capacity to create, the Covenant was a landmark. It declared that a people become a community through their belief in a Creator and His Creation. They confirmed their creative powers through their kinship, their sharing qualities of God, their intimate and voluntary relationship to a Creator – God.

Even in ancient Greece, there was no term for 'creativity'. At that time, artists were not thought of as creative and emphasis was placed on an individual's Daemon (guardian spirit), such as painters and sculptors, as it was thought that artists did not make new things, but rather imitated things. By the time of Plato and Aristotle, creativity was associated with madness and inspiration, as well as social value. In Plato's *Republic* (597D), one question is asked:

'will we say of a painter that makes something?'. The answer is: 'certainly not, he merely imitates'. This is because, in the eyes of the ancients, an artist was different from a creator. The concept of creativity implies freedom of action, whereas the Greek conception of the artist and the arts involved subjection to laws and rules (Tatarkiewicz 1980,244). In ancient Greece, art was applied to skilful productions, and art works are from men instead of divine being, and it is opposed to fortuitousness since it is purposeful and skilled. Therefore, the visual artists were usually taken as craftsmen. Dion Chrysostom claimed that visual artists express their thoughts through their works or symbols indirectly, and the visual artists such as sculptors have to struggle with their materials, which to some extent restrict their freedom, whereas the poets have their freedom to create (Tatarkiewicz 2015, 294).

The ancient Greeks did not make a connection between the poet and other artists, nor did they associate poetry with art. The Greeks thought that the poet made new things, and there were no rules to constrict them, so the poet was free to create poems. Although there was no term corresponding with 'creator', in reality, the poet was viewed as the one who created. In Plato's *Ion*, the poems 'composed' by poets do not come from the poets themselves but from the Muse. The poets are simply inspired by the Muses, which means that they cannot be bound by rules and can only create what the Muses inspire them to create. Since inspiration is drawn from the Muse, so the poems created by the poets are new.

In Rome, the Greek concepts were partly shaken. Horace wrote that painters as well as poets were entitled to the privilege of creating whatever they wished. In the declining period of antiquity, Philostratus wrote that, 'one can discover a similarity between poetry and art and find that they have imagination in common'. Callistratos asserted that, 'Not only is the art of the poets and prosaists inspired, but likewise, the hands of sculptors are gifted with the blessing of divine inspiration'. The classical Greeks did not apply the concepts of imagination and inspiration to the visual arts but restricted them to poetry (Tatarkiewicz 1980, 246). In Rome, the meaning of the concept of

creativity began to broaden since it was no longer limited to poetry, as art was thought to share the benefit of divine inspiration and imagination, like the poetry.

In the Christian period, there was a fundamental change: *creatio* came to designate God's 'creation from nothing' (*creation ex nihilo*). In addition, *creatio* had a different meaning than *facere* ('to make'), and it no longer applied to human functions. Alongside this view, the religious interpretation of the expression, there persisted the ancient view that art was not a domain of creativity. This can be seen in the work of one influential Christian writer, St. Augustine. A number of later medieval scholars also thought in much the same way. In the Middle Ages, the concept went even further than antiquity; they thought that poetry had its own rules, and that it was an art and a craft, and not related to creativity (Tatarkiewicz 1980, 247). In the Christian period and the Middle Ages, the concept of creativity meant God's creation, and art was no longer a domain of creativity – this included poetry. The special talent or unusual ability of an individual was the manifestation of an outside spirit, for which the individual was only a conduit.

The development of the modern concept of creativity began in the Renaissance, when creation began to be taken as one type of ability possessed by individuals, not from a divine being. In the early Renaissance, a significant change took place. People at that time had a sense of independence, freedom and creativity, and they sought to give voice to this sense of independence and creativity, which manifested clearly in the interpretation of art. At this historical moment, the divine attributes of great artists and artisans were recognised and often emphasised as their own ability, not something that came from the Muse. At the same time, many scientists did great work in the natural sciences, disrupting the cultural and religious paradigms of their time.

By the eighteenth century, the concept of creativity appeared more frequently in art theory. One of the most distinguishing features of the Enlightenment

were the intellectual attacks on those unwarranted authorities emanating from a variety of dogmatic non-scientific sources. These were profound changes in Western culture, which were also gauged by the transformed status of the Bible. After having been a divine source of wisdom for hundreds of years, the Bible had become a secular model of literature by the late eighteenth century. There was another type of freedom when the Enlightenment resisted the divine authority and the wisdom of religion, which was the individual's right to explore his or her world without institutional permission and divine guidelines or intervention (Albert and Runco 1998). At this time, the concept of creativity was also linked with the concept of imagination. Hobbes was the first major figure to recognise the importance of imagination in human thought and how constructive it could be. His idea of imagination reappeared and was discussed during the Enlightenment. He called the invocation of the Muses the reasonless imitation of a foolish custom, 'by which a man, enabled to speak wisely from the principles of Nature and his own meditation, loves rather to be thought to speak by inspiration, like a bagpipe' (Smith 1961, 24). Reason, knowledge and training began to be considered necessary for the creation of good art. In the nineteenth century, art was compensated for the resistance of preceding centuries. Now, art was recognised as creativity.

At the turn of the twentieth century, a discussion on creativity in the sciences and in nature emerged, which was generally taken by people as the transference, to the sciences and nature, of concepts proper to art (Tatarkiewicz, 1980, 249). The beginning of the scientific study of creativity is usually taken as J.P. Guilford's 1950 address to the American Psychological Association, which helped to popularise this subject. There were three well-known theories of creativity in the twentieth century: Alex Osborn's 'brainstorming' (from the 1950s to the present), Edward de Bono's 'lateral thinking' (from the 1960s to the present), and Genrikh Altshuller's theory of inventive problem solving (from the 1950s to the present).

The theory of inventive problem solving (TRIZ) was developed by Soviet

inventor and science-fiction author Genrich Altshuller and his colleagues in 1946, and it is an international science of creativity that relies on the study of the patterns of problems and solutions, not on the spontaneous and intuitive creativity of individuals or groups, which is different from brainstorming and lateral thinking. It is a problem-solving method based on logic and data, and more than three million patents have been analysed to discover the patterns that predict breakthrough solutions to problems; these have been codified within TRIZ. This theory presents a systematic approach to understanding and defining challenging problems: difficult problems require an inventive solution, and TRIZ provides a range of strategies and tools to find these solutions. This theory is based on one of the earliest findings of the massive research project, which is that the vast majority of problems that require inventive solutions need to overcome a dilemma between two contradictory elements. The central purpose of TRIZ-based analysis is to systematically apply the strategies and tools to find superior solutions that overcome the need for a compromise or trade-off between the two elements (Chechurin 2016).

TRIZ research began with the hypothesis that there are universal principles of creativity, which are the basis for creative innovations that could advance technology. If these principles could be identified and codified, they could be taught to people to make the process of creativity more predictable (Barry, Domb and Slocum 2010). TRIZ includes a practical methodology, tool sets, a knowledge base and model-based technology to generate innovative solutions and problem solving. It is intended for application in problem formulation, system analysis, failure analysis and patterns of system evolution. There is a general similarity of purposes and methods with the field of pattern language, a cross-discipline practice used to explicitly describe and share holistic patterns of design. This theory has three primary findings. The first is that problems and solutions are repeated across industries and sciences, and the classification of the contradictions in each problem predicts the creative solutions to that problem. The second is that patterns of

technical evolution are repeated across industries and sciences. The third is that the innovations use scientific effects outside the field in which they were developed. Much of the practice of TRIZ consists of learning these problem-solving patterns, patterns of technical evolution and methods of using scientific effects, then applying the general TRIZ patterns to the specific situation that confronts the developer.

Another popular theory of creativity is brainstorming. Brainstorming is a term put forward by Alex Faickney Osborn in the 1950s. It is a group creativity technique, which aims to find a solution to a specific problem by collecting a list of ideas spontaneously contributed by the group members (Rawlinson 1981). Osborn states that two principles, deferring judgment and reaching for quantity, can contribute to 'ideative efficacy'. There are also four general rules of brainstorming, to reduce social inhibitions among group members, stimulate idea generation and increase the overall creativity of the group. The first rule is to aim for quantity, which attempts to collect ideas as many as possible so that there is a greater chance of producing an effective solution to the problem. The second rule is to avoid criticism during brainstorming. Criticism should be reserved for the later stage and participants should first focus on generating ideas. Without criticism or judgment, participants can feel free to contribute new ideas. The third rule is that wild ideas are welcomed. Wild ideas can be generated from new perspectives, and sometimes they can present a new solution to a problem. The last rule is to combine and improve ideas. By a process of association, the building of ideas can be stimulated. Osborn claims that a specific question should be addressed in the brainstorming, and he also thinks that it is inefficient to address multiple questions in one session. Additionally, the question must require the generation of ideas rather than judgment. He envisioned groups with twelve participants, including both experts and novices. All participants are encouraged to provide wild and unexpected ideas that might lead to a solution to the problem, and there is no criticism or analytical judgment on these ideas. The discussion and judgment are reserved for a later stage.

Although the theory of brainstorming has gained significant popularity, it is still challenged by a great deal of research. For example, research has found that individuals working separately can produce more ideas than brainstorming groups(Rawlinson 1981). In group brainstorming, several factors can lead to a loss of effectiveness. Blocking is a challenge in group brainstorming, because, after one participant presents an idea, the other participants may choose not to share their own ideas if they think these are no longer relevant or important. In addition, blocking may inhibit a person's thought in generating their own ideas. In addition, group members exchanging ideas in a group may conform their ideas to those of other members; as a result, the novelty and variety of ideas could be reduced. Similarly, another problem is that participants usually tend to alter their own productivity to match that of others in their group, which can reduce their own contributions if they believe themselves to be more productive than other group members. On the other hand, this can also increase an individual's level of production to meet the group average. In brainstorming, personality characteristics can also be a factor that influences production. It has been shown that extroverts outperform introverts, and also generate more diverse ideas (Rawlinson 1981).

Another popular theory of creative thinking from the twentieth century, the theory of lateral thinking, was put forward by Edward de Bono in 1967. It is a problem-solving approach through an indirect and creative way. It uses reasoning that is not immediately obvious and involves ideas that may not be obtainable using only traditional step-by-step logic. Lateral thinking is very different from the standard perception of creativity as 'vertical' logic. Unlike critical thinking, which is primarily concerned with judging the truth value of statements and seeking errors, lateral thinking is more concerned with the 'movement value' of statements and ideas. People use lateral thinking to move from one known idea to create new ideas. De Bono mentions the example of the Judgment of Solomon, in which King Solomon made his judgment according to the reactions of a child by calling for the child to be cut

in half to resolve a dispute over the child's parentage.

According to de Bono, there are four types of thinking tools. Idea-generating tools aim to break current routine thinking patterns. Focus tools are intended to open the mind to new possibilities in the search for new ideas. Harvest tools help to maximise the value that is received from idea-generating output. Treatment tools help the wild ideas to fit real-world constraints, resources and support. De Bono designed a system named 'Six Thinking Hats', which is a tool for group discussion and individual thinking that involves six different-coloured hats. It provides a means for groups to plan thinking processes in a detailed and cohesive way, and in doing so to think together more effectively and efficiently. The premise of the method is that the human brain thinks in a number of distinct ways, which can be challenged. De Bono identifies six distinct directions in which the brain can be challenged, and each direction is assigned a colour. Managing blue is used to consider what the subject or the goal is. Information white is used to consider what information is available and what the facts are. Emotions red relates to intuitive or instinctive gut reactions or statements of emotional feeling. Discernment black is for the logic applied to identify reasons to be cautious and conservative. Optimistic response yellow is used for the logic applied to identify benefits, seeing the brighter side of situations. Creativity green indicates the statements of investigation, exploring where a thought leads. The six thinking hats indicate problems and solutions about an idea that the thinkers may come up with (de Bono 1970).

1.3. Research on creativity

Interest in creativity research began to grow in the 1950s, as scholars began to undertake systematic research on creativity and a number of research institutes related to creativity were founded. In addition, many psychologists (e.g. Freud, Piaget, Rogers and Skinner) have taken creativity seriously and explored what it means to be creative. Creativity research also has its own scholarly journal (*Creativity Research Journal*). In 1996, three articles on

creativity or creativity research appeared in *American Psychologist* (Eisenberger and Cameron 1996; Schneider 1996; Sternberg and Lubart 1996). In 1999, Sternberg published the *Handbook of Creativity*, which contains essays on creativity from a wide variety of scholars. In Jane A. Piirto's *Understanding Creativity* (2004), she presents the model of seven I's of creativity: inspiration, imagery, imagination, intuition, insight, incubation and improvisation. In 2006, R. Keith Sawyer published *Explaining Creativity*, which argues that creativity can only be understood in the social and cultural contexts in which it occurs. Also in 2006, Mark A. Runco's *Creativity: Theories and Theme* was designed as a textbook for the field. Creativity is now attracting increasing attention in the media and popular press.

Although research on creativity has gained increasing levels of attention than since the twentieth century, its development is still slow. Robert J. Sternberg (2003) introduced a research background on creativity. He suggests that creativity is the ability to produce novel, high-quality, task-appropriate products. Creativity is a wide topic, which is important at both the individual and societal levels for a wide range of task domains. Up until the 1950s, less than two-tenths of one percent of the entries in *Psychological Abstracts* focused on creativity, according to a report from Guilford (1950). There have been a very small number of professional articles and books specifically devoted to creativity (Albert 1969; Feist and Runco 1993; Guilford 1950). According to Feist and Runco (1993, 272):

> One of the most widely cited statements from Guilford's article is that out of the 121,000 titles listed in Psychological Abstracts from the late 1920s to 1950, only 186 dealt with creativity. There are fewer than 2 articles out of 1,000. We recently discovered that the figure for more recent creativity research is roughly five times higher … the percentage of articles dealing with creativity in the Psychological Abstracts has grown from .002% in the 1920s to approximately .01% in the 1980s. From the late 1960s until 1991, almost 9,000 creativity references have been added to the literature.

Robert Sternberg and Todd Lubart (1996) analysed the number of creativity references in *Psychological Abstracts* from 1975 to 1994. Their analysis showed that approximately 0.5 percent of the articles indexed in *Psychological Abstracts* from 1975 to 1994 concerned creativity. If introductory psychology textbooks can be seen as another index, creativity is barely covered. Courses on creativity in the major psychology departments are rarely offered. In terms of academic positions, there are virtually no listings in psychology departments for positions in the study of creativity. With regard to research journals, there are no journals on creativity in the top most-cited journal lists.

It is well known that creativity is important in society, but it has been overlooked for many years. According to Sternberg (1999, 4), the study of creativity has faced at least six major blocks. The first related to the origins of creativity, because study on this reveals the traditions of mysticism and spirituality, which seemed to counter the scientific spirit. The second block was the impression conveyed by pragmatic and commercial approaches to creativity, which resulted in the study lacking a basis in psychological theory. The third was early work on creativity, which was theoretically and methodologically separate from the mainstream of theoretical and empirical psychology. As a result, research on creativity is sometimes seen as peripheral to the central concerns of the field of psychology as a whole. The fourth was that there are also some problems with the definitions and criteria used for creativity. The fifth block was that creativity is sometimes viewed as an extraordinary result from ordinary processes, so that there is not enough study on creativity. The final block was the unidisciplinary approaches to creativity, which tend to view a part of creativity as the whole phenomenon, often resulting in what we believe to be a narrow vision of creativity. To study creativity, there are several main approaches. Sternberg (1999, 4) reviewed six of these, including the mystical approach, the pragmatic approach and the psychodynamic approach, which will also be considered in this thesis.

The mystical approach is perhaps the earliest account of creativity. It is based on divine intervention, and the creative person is seen as an empty vessel inspired by a divine being. For example, Socrates in Plato's dialogue, *Ion*, argued that the beautiful poems did not come from the poets but from the Muses. Poets were believed to be out of their own minds and received inspiration from the Muses when they were composing poems, so they could only create what the Muses dictated. Even today, we sometimes hear references to a person's own Muse as a source of inspiration.

The pragmatic approach includes lateral thinking and brainstorming. Another major approach to the study of creativity in the twentieth century is the psychodynamic approach, which is based on the idea that creativity arises from the tension between conscious reality and unconscious drives. Freud proposed the idea that writers and artists produce creative work as a way of expressing their unconscious wishes in a publicly acceptable fashion. These unconscious wishes may concern power, riches, fame, honour or love (Vernon 1970). Case studies on eminent creators, such as Leonardo da Vinci (Freud 1964), were used to support these ideas (Sternberg 2003).

1.4 Creativity in Psychology and Philosophy

The discussion of creativity in psychology is different from the discussion of creativity in philosophy. Psychology focuses on the personality features of creative individuals, and their internal motivation that leads to creative actions. We usually think that such creative individuals have many psychological characteristics such as willingness to challenge traditional norms, a good sense of imagination and open-mindedness. Psychologists conduct many experiments or tests to explore creativity. All of the psychological research on creativity provides us with valuable resources from creativity research, such as useful reference works (Pritzker and Runco 1999; Sternberg 1999); psychological journals, including the *Creativity Research Journal* and the *Journal of Creative Behavior*; and finally textbooks (Runco 1996; Sawyer 2012; Weisberg 1993). Psychological theories often lead to philosophical

questions on creativity. For example, the relationship between creativity and irrationality has been discussed frequently in the field of psychology, which can also be seen in Plato's *Ion* (534b3–5), which states that a poet 'is never able to compose until he has become inspired, and is beside himself, and reason is no longer in him'. Psychologists also conduct a great deal of research on the connection between creativity and psychological disorders, which poses challenges to the rationality account of creativity. For example, in a study of over 1,000 eminent individuals in 18 professions, Arnold Ludwig (1995) concludes that the connection between artistic creators and bipolar disorder is strong. Additionally, according to a number of psychological theories, many forms of irrationality even promote artistic creativity (Gaut 2010).

One theory of creativity that should be discussed is presented by Margaret Boden, a philosopher in cognitive science. She developed one of the most popular theories of creativity in recent years. She suggests that there are three main forms of creativity: exploratory creativity, transformational creativity and combinational creativity. Combinational creativity can be seen as the combining of old ideas in new ways, while exploratory creativity and transformational creativity require a 'conceptual space', which is the 'generative system that underlies that domain and defines a certain range of possibilities: chess moves, or molecular structures, or jazz melodies' (Boden 1994, 79). Exploratory creativity is manifested in the exploration of possibilities in the conceptual space, while transformational creativity is manifested in the changing of the conceptual space. According to Boden (1994), it seems that combinational creativity is the most common form, but she fails to explain how the combination came about, and her main objection to combinational creativity is that it does not show 'radical originality', which occurs when something totally new is created, such as a new conceptual space. According to Boden, conceptual spaces are computational concepts, which come from artificial intelligence and structured styles of thought. She suggests that we acquire conceptual spaces from our own culture or peer

groups, and sometimes from other cultures. These conceptual spaces do not originate in our own minds, and they influence our ways of thinking, writing, painting, etc. (Bode 2004, XI–4).

Boden asserts that combinational creativity fails to explain the combination. However, perhaps we can see the combinational system from the perspective of lateral thinking, which views problems from new directions and transforms 'new questions' into 'old questions' with which we are familiar, then combines the old and the new to generate creative solutions to the problems. Scaltsas (2016) describes his brain-mining process: 'we search our minds for old solutions that we can apply to new types of problem … all we have to do to think creatively, therefore, is to systematically redefine an intractable problem until it transforms into a problem that some old solution we already have can solve'.

Although psychologists have conducted a great deal of research on creativity, it seems that their research materials have been ignored by philosophers. In the domain of philosophy, it seems that we do not usually use the word 'creative' to describe the work of a philosopher. Does this mean that philosophers are not creative? The answer is no, because, in fact, philosophers can be creative in many ways. For example, philosophers use thought experiments, such as Putnam's supposition of Twin Earth and Descartes' evil demon, which involve scenario-imagination. In order to develop arguments and theories, philosophers are required to think of appropriate examples. Clearly, imagination is needed in such cases, and scenario-imagination exhibits creativity. Beaney (2018) developed an argument for 'conceptual creativity' in philosophy, which suggests that philosophy is creative at its conceptual level. He mainly discusses four types of conceptual creativity in philosophy: creativity in the formation of new concepts; creativity in the modification of existing concepts; creativity in the application of concepts; and creativity in the development of new conceptual frameworks. Although it is sometimes difficult to make a distinction between

the formation of new concepts and the modification of existing concepts, both can be creative actions in philosophy.

A number of great philosophers throughout history have shown particular interest in creativity. For example, in *Ion*, Plato claims that inspiration comes from an outside source, namely the divine being. Whereas, Kant linked creativity to the imagination. However, the philosophy of creativity has gained little interest since the 1950s. until 2000, there has been a revival of this topic (Gaut, 2010). In addition, there are many paradoxes driving philosophy to develop, such as Meno's paradox, Zeno's paradoxes in Western philosophy, Gongsun Long's paradox, and Hui Shi's paradox in Chinese philosophy. In these cases, distinctions between concepts are usually required in order to resolve the paradoxes. For example, in Gongsun Long's famous paradox, 'When a white horse is not a horse', when he tries to pass a customs post on his white horse, the officer there stops him, claiming that only a human can pass the customs post, not a horse. Gongsun Long states the argument that 'a white horse is not a horse' and passes the customs post successfully. There are many discussions on this famous argument, but I will not expand on them here. What I want to emphasise is that, by making proper conceptual distinctions between a 'white horse' and 'horse', conceptual creativity is involved. Additionally, I would suggest that there is not only conceptual creativity, in this case, but also creative lateral thinking. Gongsun Long did not solve the problem he was facing in a conventional way, i.e. leaving the horse and passing the customs post himself, but rather he redefined the problem and transformed it into a conceptual problem by claiming that 'a white horse is not a horse'. He was then successful in convincing the officer to believe that what he was riding was just a white horse, but not a horse.

Another case of conceptual creativity that should be noted is Kant's Copernican Revolution. Before Kant suggested his revolution, his central question was, 'How are synthetic a priori judgments possible?'. He did not believe this question could be answered properly simply by deriving such

judgments from our cognition of objects which are taken as given independently of us. Therefore, he came up with a new way of answering this question, by claiming that, 'we can cognize of things a priori only what we ourselves have put into them' (Bxviii). Clearly, Kant showed extraordinary creativity in his new way of looking at and answering the question, and his Copernican Revolution is often taken as a new conceptual framework, transforming our knowing of concepts: concepts are not only 'abstracted' from experience, since they could be a priori concepts involved in experience. We can also see that creativity is involved in his schematism of those concepts. According to Kant, we also need 'schemata' or 'time-determinations' to apply concepts to objects, and he suggests that schematism 'is a hidden art in the depths of the human soul', but that it is attributed to our powers of imagination (A141/B180-1). Our ability to apply concepts could be creative if we use our imaginations and contribute to the construction of the world.

In philosophy, creativity has been taken as an extraordinary or even exceptional thing for a long time. Within this context, it is thought that creativity can only be owned by exceptional people or cognitive processes. As a result, this thought sometimes accompanies the view that creativity is mysterious and inexplicable. The reason for this type of view of creativity is that it includes the feature of spontaneity, which means that creative people sometimes lose self-control during the creative process; for example, 'inspiration' that seemingly comes from nowhere belongs to this aspect. Works of genius do not come from the expertise or skill of the artist, but rather from the divine inspiration they are lucky to receive. Stokes (1998) holds a similar view, that creativity is a kind of flash phenomenology, which means that creative ideas come to us. Ideas that come to us in a flash are not ideas that we deliberately form and, thus, are not ideas for which we are responsible. But, from where and whom do these ideas come? God, or Muses? In Plato's *Ion*, the poets and rhapsodes are taken as conduits for divine inspiration. The poets were not in their own right minds when they

composed their poems. The poets drew inspiration from the Muses, then the rhapsodes were inspired by the poets and interpreted the poems.

Since creativity is generally thought of as being extraordinary, only a few people are blessed with supernatural powers and inspired by muses to show their creative abilities. In his *Critique of Judgment*, Kant suggests that both scientists and philosophers are great heads, although they are not geniuses or truly creative. For Kant, scientists can explain how they develop new ideas and they have their own methods, which anyone can learn. Although they are excellent and can create something new, they are different in kind, since only geniuses can be creative, while others are just intelligent.

Although spontaneity or inexplicable cognitive processes can be counted as a true phenomenon of creativity, this is not the whole story, and only partly describes what it is like to be creative. Even though spontaneity can be understood as one feature of creativity, goal-directedness is still involved. For example, in cases of creative problem solving, creative people intentionally produce trials and try to find solutions to the problems they are trying to solve. During this process, originality and spontaneity can be involved. Although spontaneity means the absence of control in the creative process, it is not a denial of goal-directedness.

Instead of trying to find an extraordinary process of creativity, a number of scholars working on creativity have turned to ordinary cognitive processes (Kronfeldner 2018). They suggest that creativity can be demystified as an ordinary cognitive process. For example, Knoblich et al. (1999, 2001) have put forward representational-change theory, which focuses on the unconscious process of changing the representation of a problem, while MacGregor (2001) posits progress-monitoring theory and emphasises the conscious heuristics that monitor progress in problem solving. The ordinary processes can be visual imagery, perception, conceptual combination or expansion, analogical reasoning, abstraction, and so on (Kronfeldner 2018). According to ordinary-process theory, a special process of chance-

configuration is not necessarily required to explain creativity. The more radical ordinary-process view even claims that creative people do not have a special cognitive operation that others cannot perform. Creative activities involve multiple cognitive processes that can interact in very efficient and complex ways, and it is this kind of complex interaction that explains why creative agents cannot describe how they come up with their new ideas, and why it is so difficult to predict the occurrence of creativity, which is just like what Sternberg and Sternberg (2016, 434) have said:'What distinguishes the highly creative individual from the only modestly creative one is the confluence of multiple factors, rather than extremely high levels of any particular factor or even the possession of a distinctive trait.' What is extraordinary about creativity is not the inexplicable talent or skill; rather, it is its multiplicity and complexity. Although creativity is only a network of trained abilities, it is still not easy to access. However, this view provides us with a new angle from which to view creativity, since it does not presume that there is an inexplicable cognitive process and it also does not hold that only a few people can be creative. Therefore, it negates the need for the traditional view of creativity, which asserts that there is something extraordinary and inexplicable in creative people or cognitive processes.

1.5 Conclusion

From the history of the concept of creativity, we can see the development in the scope of creativity. For many centuries, the concept of creativity was not used in antiquity since it did not exist at that time. However, one concept of the ancients that was related to the concept of a creator was that of the poet. The ancients believed that the poet had a freedom that artists did not, since the poet was akin to a creator, as was the divine being. It was thought the human creativity was dependent on divine sources, such as the Muse. Medieval scholars believed that creation was an exclusive attribute of God, and that God alone was the creator. Whereas, in the Enlightenment and the eighteenth century, people began to resist divine authority and non-scientific sources. Realising that it was their own right to explore the world without

divine permission, people were inspired to think more independently and were motivated to create. In modern times, the concept of creativity has transformed radically. Creativity in the altered construction has become the making of new things rather than the making of things from nothing. Therefore, the novelty has been taken as a feature of creativity. With this new concept, creativity has been taken as an exclusive attribute of the artist, which is a typical nineteenth-century view. In the twentieth century, new theories have emerged: it is not only artists who are creative but also individuals in other departments of culture.

We can see that people's views of creativity have undergone a process of demystification: the source of creativity has transformed from divine inspiration to human initiative. The meaning of creativity has also broadened, since it is no longer limited to poems or art, but can be applied in many other fields, such as education, science and industry.The scope of the concept of creativity has broadened, since it no longer belongs only to a divine being, the poets or the arts, and it can lead to innovation in all fields.

Although there are various definitions of creativity, each one emphasises two aspects: novelty and value. However, we should take a more comprehensive approach to the definition of this concept, rather than looking at it from a purely result-orientated perspective. For example, the creative process and different types of creativity should also be considered.

Research on creativity has been neglected for a long time. However, since the 1950s, interest in creativity research has begun to grow. Sternberg (1999, 4) points out six major blocks and six approaches to creativity research. In this thesis, only three of these approaches will be discussed: the mystical approach, the pragmatic approach and the psychodynamic approach. Compared with research on creativity in the field of psychology, philosophical research on this concept is relatively rare, despite the fact that many philosophers historically have shown interest in creativity and their ideas have exerted profound influence for centuries, such as Plato and Kant. I have

demonstrated some of the different philosophical angles from which creativity is viewed, such as the mystical approach, in which creativity is seen as something extraordinary and suggests that only a few people are blessed with supernatural powers or inspired by muses to show their creative ability. The cognitive approach can also be used to show that creativity can be demystified as an ordinary cognitive process. Many other philosophical questions can be raised concerning creativity; however, this chapter has set the stage for further research on creativity in this thesis, especially creativity in the West.

Chapter 2 Divinely Inspired Creativity

After the first chapter on creativity, I will now turn to the creativity in Plato by focusing on his dialogue, *Ion*. I will first analyse *Ion* to show that Ion's ability to interpret Homer is not from knowledge or *techne*. I will then go on to investigate what enables Ion to interpret Homer's poem if it is not a *techne*. I will argue that Ion's ability is not from knowledge or skill, otherwise, he would also be able to interpret other poets but his ability is from inspiration, which is a source of creativity. I will then explore inspiration, including what inspiration is, where it is from, and the relationship of inspiration and creativity. Additionally, other concepts closely associated with inspiration, such as *techne* and imagination, will also be discussed to see

2.1 Creativity in Plato's *Ion*

The dialogue, *Ion*, can be divided into three sections, the first and third (530a1-533c8 and 536d4-542b4) claim that Ion's ability to interpret Homer is not from techne. The middle section (533c9-536d3) explains the nature of poetry itself, using the notion of inspiration (Janaway 1998).

In the dialogue, Ion is a rhapsode of Homer, who won the first prize in the contest for rhapsodes in honour of the god. From the dialogue, we know that a rhapsode is a professional interpreter of the works he knows about and he can interpret the works to the public. Ion is an expert on Homer and Socrates expresses his envy at first. For Socrates, Ion, on the one hand, can dress up beautifully. On the other hand, he can work with fine poets and learn the poets' thoughts to understand what the poets mean. Ion himself is also very proud to admit that he can speak more beautifully than others about Homer and that only he is knowledgeable about Homer. Both Socrates and Ion agree that Homer and other poets talk about a lot of same things and Ion would like to explain Homer and other poets' verse in the same way.

However, what is it that Ion knows about Homer but not about Hesiod and other poets? The subjects in Homer are the same as the subjects in Hesiod and the other poetry, like the tales of war, how people deal with each other in society, good and bad people, ordinary folks and craftsmen, gods, heaven and hell, etc. Ion admits that Homer and the other poets write on the same subjects but Homer does better than others. However, according to Socrates, the same person should be able to identify the bad speakers as well as the good ones:

when a number of people speak on the same subject, it's always the same person who will know how to pick out good speakers and bad speakers. If he doesn't know how to pick out a bad speaker, he certainly won't know a good speaker—on the same subject, anyway (*Ion* 532a).

Because of this, Socrates concludes that the same person should be 'wonderfully clever' about Homer and other poets. Ion thinks that Homer is much better than other speakers, which means Ion knows who is speaking better or worse, though they speak on the same subjects. Therefore, Socrates claims it is correct to say that Ion should be equally knowledgeable about Homer and the other poets. Ion himself also agrees that the same person can be an adequate judge of all those poets who speak on the same subjects.

However, Ion previously admits that he is only able to interpret Homer and cannot contribute anything on the other poets. This, therefore, contradicts Socrates' conclusion. What is it that makes Ion only able to speak about Homer but not the other poets? From Socrates' view, if Ion's ability to interpret Homer comes from a mastery of art, he would also be able to speak about all the other poets, but the reality is that Ion cannot do that, so it is easy to tell that Ion's ability is not based on mastery:

Anyone can tell that you are powerless to speak about Homer based on knowledge or mastery. Because if your ability came by mastery, you would be able to speak about all the other poets as well (*Ion* 532c).

Since Ion cannot speak about all the other poets, so Socrates thinks his ability is not from knowledge or mastery. Socrates talks about doctors, flute-players, carpenters and shoemakers many times in Plato's dialogues and all of those men possess a '*techne* - an art (or craft, skill, expertise, profession, or even, as it is sometimes translated, a science) - a thorough, masterful knowledge of a specific field that typically issues in a useful result, can be taught to others, and can be recognised, certified, and rewarded' (Roochnik 1996). Throughout Plato's dialogues, *techne* is frequently cited to illustrate important points in philosophical conversations. Some crafts mentioned are medicine, horsemanship, huntsmanship, ox herding, farming, calculation, geometry, generalship, piloting a ship, chariot-driving, political craft, prophecy, music, lyre-playing, flute-playing, painting, sculpture, housebuilding, shipbuilding, carpentry, weaving, pottery, smithing and cookery. Each of these activities is associated with the word *techne*, and each is also associated with a practitioner, e.g. medicine with a physician (Parry, 2014). In *Ion*, those crafts mentioned are medicine, generalship, chariot-driving, painting, sculpture, architecture, fisherman, navigating.

If a person has the *techne* in a subject, he should have good mastery of his field and thus he should be able to evaluate others working in that field because 'any *techne* will have a determinate subject-matter and a unified

method; the expert technician will be able to employ the method to the entire subject-matter' (Trivigno 2012, 286). The knowledge of a *techne* must be generalisable across all its possible subject-matter (Janaway 1998). For example, if A has a *techne* about B, then A should know B very well. Therefore, if both C and D claim that they know B as well and if A thinks C does much better on B but D does badly on B, then it is reasonable to say that A has the ability to evaluate equally both C and D but not just C or D. However, Ion is an exception. Ion's subject field is poetry, although he can explain Homer excellently, he cannot contribute anything to another poets' work, like Hesiod. When other poets are discussed, Ion 'pay[s] no attention, and I have no power to contribute anything worthwhile: I simply doze off' (*Ion*, 532c). Homer and other poets share many of the same subjects in their poems, such as people in society, warfare, and relationships of humans and gods. Theoretically, if Ion can interpret Homer well, he should be able to interpret other poets as well but the reality is that Ion cannot provide any contribution to other poets and he still claims that Homer does much better than other poets, which means that Ion can make comparative judgments. Comparative judgments require a good understanding of both sides and a single judging skill, therefore, if Ion understands Homer, he should also understand other poets. In the dialogue, *Ion*, the people who have real *techne* cannot only show their knowledge or ability in contexts where something is produced or carried out by themselves, but also they can examine and judge what is produced or carried out by others. However, just as Ion claims, he cannot interpret any other poet, so Socrates points out that the rhapsode has no systematic method of interpretation.

Aguirre (2016) explained this question in *Ion* with the principle of totality and speciality. He claims that each *techne* just has only one function in a specific area. In the dialogue, Socrates establishes that two different kinds of *techne* have a different function and they cannot share the same function. One *techne* should have and only have one object. In Ion's view, Homer can talk about any subject in his poems, but Socrates managed to show that both

Homer and Ion cannot talk knowledgeably about all the subjects. Therefore, under the principle of speciality, Ion and Homer's view are contradicted with each other. In Aguirre's view, Socrates refutes the ability of the poets and rhapsodes in two ways: firstly, he denies that they know a domain of objects specific to them; secondly, he denies that the poems represent a body of knowledge free from the intrusion of non-experts in poetry and rhapsody.

Another hypothesis provided by Nickolas Pappas (1989) also tried to explain why Ion cannot transfer what he knows about Homer to a discussion of Hesiod. He thinks that:

> what Ion knows, when he understands a Homeric passage about charioteering, is not something about charioteering, but about Homer on charioteering…… knowledge of Homer on charioteering is knowledge of an individual—more than that, it is knowledge of that individual's uniqueness…… Someone who has that understanding is the least qualified of all to explain Hesiod on charioteering

In Nickolas' view, it makes sense to think that Ion cannot interpret other poets, like Hesiod. Since Ion's knowledge of Homer is knowledge of an individual, which has its uniqueness, so we cannot blame Ion for not being able to make any contribution to Hesiod. For example, we research one topic or philosopher and, normally, we cannot know all the other similar topics or philosophers working on that topic in depth. From this perspective, it is reasonable that Ion only understands Homer and no other poets. However, I would like to argue that Nickolas seems to ignore one important point - that Ion thinks Homer is much better than other poets that talk about similar topics as Homer. This means that he can make his own comparative judgments. Who can make comparative judgments? Only those who understand both sides well can claim who is better or worse, otherwise, he cannot make this judgment. Since Ion makes this judgment, he must be able to understand other poets. However, he is unable to provide any explanation to others, therefore the question still remains. Why does Ion only understand Homer but not the other poets? How can we explain this question?

For Socrates, that is not hard to fathom. Ion agrees with Socrates that there is an art to poetry and it has the same discipline throughout and any other subject that can be mastered is the same. Poetry, a method of poetic interpretation, would allow one to interpret all poetry and all poets equally well (Carter 1967). Socrates firstly takes painting as an example - painting is a subject that can be mastered since there is some discipline in the painting. No painter is astute at identifying the good or bad work of one painter but is powerless to do that for other painters. The situation is the same in sculpture. No one is skilled at interpreting statues of a single sculptor but is lost when he is among the works of other sculptors. Furthermore, no one is skilled at interpreting other rhapsodes but is not able to interpret Ion. In all these examples, painting, sculpture, and rhapsode, if someone can understand any single painter, sculpture, or poet well, he should have the ability to evaluate others in those fields, since there is an art to poetry and other subjects and the same discipline can be used to master the whole of a subject.

Even though Ion has nothing to say against Socrates on this point, he still does not know why he can only speak beautifully on Homer but no other poets. This does not mean that what Ion says about Homer is wrong but he still cannot interpret any other poets and he cannot give the reason why he does so. For this question, Socrates gives his explanation that: That's not a subject you've mastered—speaking well about Homer; it's a divine power that moves you, as a "Magnetic" stone moves iron rings. (*Ion* 533d)

Magnetic power goes through the iron rings, which the magnetic stone holds together in a chain, the magnetic stone itself implants part of its attractive power to all those iron rings through every single one that touches the stone. In turn, the rings can also do what the magnetic stone does, just like the magnetic stone, the rings have the magnetic power as well, so the chain of iron rings can be very long sometimes since the rings can hang from one another with the magnetic power. For Socrates, the magnetic stone is analogous to the Muse:'In the same way, the Muse makes some people

inspired herself, and then through those who are inspired a chain of other enthusiasts is suspended' (*Ion* 533e).

The Muse inspires the poets and none of the epic poets or lyric poets can compose beautiful poems:

None of the epic poets, if they are good, are masters of their subject; they are inspired, possessed, and that is how they utter all those beautiful poems. The same goes for lyric poets if they're good……lyric poets, too, are not in their right minds when they make those beautiful lyrics (*Ion* 533e-534a).

Thus, the poets do not compose the beautiful poems by themselves, because they are just inspired by a muse, as a result, the poets are just mediums for the Muse and they just 'carry' Muse's thought. 'To turn to the account of poetic creativity in the central section: one thing that is clear is that the source of creativity is external' (Scott 2011, 133). In Plato's view, poetry comes from an external source other than the conscious mind. The inspired poets themselves do not have a conscious part in the process of composition and they cannot explain the source or the meaning of their poetry. In the *Timaeus*, Plato suggests that one who is possessed cannot evaluate the results of such madness, but those who have a sound mind can do the task of evaluation (Carter 1967).

The poets get inspiration from the Muse and then inspire the rhapsodes, and then rhapsodes convey the thought to their audiences. In this way, the power of the Muse can be conveyed to the common people through poets and rhapsodes. During this whole process, the Muse attracts the inspired poets first, like Homer. Then Homer attracts the rhapsode and Ion finally captures the audiences. This works in the way of the magnetic chain. The Muse is analogous to the magnetic stone and poets, rhapsodes and audiences are like the iron rings connected by the magnetic power. The difference is that the Muse, poets, rhapsodes and audiences are connected by divine power from the Muse.

As to the question of why poets are not able to make poetry by themselves? Socrates gives his own reason:

For a poet is an airy thing, winged and holy, and he is not able to make poetry until he becomes inspired and goes out of his mind and his intellect is no longer in him. If a human being has his intellect in his possession, he will always lack the power to make poetry or sing prophecy (*Ion* 534b).

From Socrates' view, it is impossible for a man possessing the intellect to compose poems when the poets are making poems, they do not have their intellect, and they lose their mind. Therefore, Socrates gets his conclusion that what makes poets compose beautiful poems is not mastery but it is the divine power. The poets get inspiration from the Muse so that they can make beautiful poems.

Why it is not by mastery that poets compose poems, but it is by divine power? If their ability to create poems comes from mastery, which is a *techne*, and a person has the *techne* of a certain subject in one type of poetry, he should be able to master other types of poetry. Therefore, the poets should also be able to speak beautifully on other types of poetry but the poets actually cannot speak beautifully on other types of poems, so the poets do not speak by internal mastery, but by some external source, which is the divine power from the Muse, according to Socrates. In this way, the audience should know that it is not the poets who are speaking beautifully but the gods are the those who are speaking and audiences get the words from gods through poets and 'poets are nothing but representatives of the gods, possessed by whoever possesses them' (*Ion* 534e).

The rhapsodes, like Ion, are those who present what the poets say, therefore they are the representatives of representatives. The whole process goes like this: the inspiration from the Muse goes to the poets first, so the poets can compose the poems, then the rhapsodes get inspiration from poets, so they can interpret the poems, then the audiences are inspired by rhapsodes and consequently, the audiences, like the last ring in the chain of rings with

magnetic power, are inspired by the rhapsodes. The relationship between the rhapsode and the poet is the same as the relationship between the poet and the divine Muse. Their connection is like the magnetic power going through all the metal rings in the chain, which causes each ring to attract each other. In the same way, the divine power from the Muse, namely the inspiration, attracts the poets first, then the rhapsodes and the audiences.

In ancient Greek, the poets had a very important role in the transmission of values in society and traditionally poets believed that they, like prophets, were inspired directly by the gods with wisdom about the human and divine condition (Kraut 1992, 339). Plato did not only talk about poetry creativity in *Ion* but some other dialogues also discuss poetic creativity, like the *Apology*, *Phaedrus, Meno,* and *Laws*. In the *Apology*, Socrates found that although some poets said 'many beautiful things' when he went to them to test the Delphic oracle and they could not explain what they said. Socrates concluded that 'they did not compose what they did through skill, but rather by a kind of innate talent and inspiration, the way prophets and soothsayers do' (22b-c). In *Meno*, Socrates suggests that poets are inspired with correct beliefs by a god (Kraut 1992, 342) In *Phaedrus* (243e-245a), Socrates takes inspiration along with love, mantic enthusiasm and a kind of mystical power of healing as a form of madness by the Muses. On poetic creativity, we can see from *Phaedrus* that:

His seizes a tender, virgin soul and stimulates it to rapt passionate expression, especially in lyric poetry, glorifying the countless mighty deeds of ancient times for the instruction of posterity. But if any man come to the gates of poetry without the madness of the Muses, persuaded that skill alone will make him a good poet, then shall he and his works of sanity with him be brought to naught by the poetry of madness, and behold, their place is nowhere to be found (*Phaedrus*, 245a).

In this passage, Plato also points out that the poets are inspired by the Muses so that they can compose the poems, and a poet cannot be a good

poet with skills alone. In the *Laws* (719c), the Athenian asserts that 'when a poet sits on the tripod of the Muses, then he is not in his right mind' and he does not know whether what he is saying is true or not (Konstan 2005). The effect of inspiration is linked to the nature of drama and its multiple perspectives: when the poet sits on the Muse's tripod, he is not in his right mind but ready to flow like a fountain.

We can see that Plato thinks that good poetry comes from a divine source originally, but not from rational minds. The inspired poets have no conscious part in their poem composition and they do not know what they are saying and cannot explain the meaning of their poems. In the *Ion*, the inspiration from the Muse is extended to the performers and audiences but none of them has *techne* or knows what he is doing.

Techne is denied in the poetic creativity in *Ion*, and the poem composition is attributed to divine inspiration. Landry (2015) claims that divination is characterised as a *techne* at the beginning of the *Ion* because what happens to Ion is analogous to 'prophets and godly seers' in the sense that no one thinks it is the seers themselves who divine. But I would like to say that divination is different from *techne* and divination is not a *techne* of those poets, since the divination from the Muse is just a temporary aid to compose the poems. The inspiration that the poets get cannot last long and the poets do not know what the poem means. However, those who have *techne* can always know how to do something and know the principle inside. Additionally, in ancient Greece, those prophets and godly seers were divinely inspired as well. In *Apology*, Socrates concludes that poets work instinctively and while inspired, as do prophets and soothsayers, as opposed to writing based on *Sophia* (22c). The prophets, statesmen, oracular priests, and 'poets of every description' do not know what they are saying, so even if 'Ion is analogous to prophets and godly seers', Ion is still inspired, and we cannot say 'divination is characterised as a *techne*' either. Therefore, not only the poets, the prophets get the inspiration from the Muse as well.

2.2 Inspired creativity

From the above discussion, we can see the divine inspiration plays an important role in creativity. However, what is the inspiration, and what is its role in the creative process? These are what I am going to explore in the following part.

2.2.1 What is inspiration?

Inspiration is an ancient concept, but it has hardly been explored other than by poets within the language of poetry itself. Poetry is an ideal place to investigate the concept of inspiration since it is something which happens during the process of writing poetry, where it is embodied symbolically within the aesthetic form of the poem. In poetry, inspiration is both displayed and analysed (Williams 1997). In ancient time, the poets believed they had received a commission from the Muses in person, and the beginning of *Iliad* (1.1-7)implies the existence of a genuine belief in inspiration from the Muses, 'Sing, O Goddess, of the wrath of Achilles. Tell me now, ye Muses who occupy Olympian homes'. The gifts that are maybe inspired by the Muses are as follows: prophecy, poetry, and eloquence or persuasiveness of speech (Chadwick and Chadwick, 2010). The poets obey the inspiration they get from the divine source and simply write down what the Muse has told them. The inspired knowledge, which inspires the society lies in the words from the Muse.

One essential feature of the inspiration is that poetry comes from some other source but not the conscious mind. Inspiration is the moment when a thought or idea spontaneously present to the poet as a starting point of a poem. Then the poet composes the poems fluently, with an unusual state. This unusual state is temporary and does not depend on the will of the poet. When the inspiration ceases, the poet is amazed at what he has written, and can only describe himself as the instrument of some higher power (Murray 1981).

Poetic inspiration is a subject often treated in the works of Plato, like *Apology* (22a-c), *Meno* (99c-e), *Phaedrus* (245), *The Laws* (682a 179c-d), and *Ion*. Although the treatment of it may differ considerably from one dialogue to another (Aguirre 2016). Since the poets are in the state of inspiration, they are not able to know or carry out his own activity but his activity is the result of a divine gift, the acquisition of which does not depend on his will. The description of the inspired poet is common in all Platonic commentaries about inspiration, from the *Apology*, the *Ion,* to the Laws, and whilst each dialogue indeed approaches the subject from a particular perspective, it is also true that Plato underlines, on every occasion, the irrational origin of divine inspiration. Ion's contribution to what is mentioned in other dialogues involves extending the poet's poetic performances. The Platonic understanding of divine inspiration is identified with the kind of alienation madness which, as we are told in the *Laws*, reflects what has already been described by an ancient traditional tale which asserts that: 'there is an old proverb… which we poets never tire of telling and which all laymen confirm, to the effect that when a poet takes his seat on the tripod of the Muse, he cannot control his thoughts. He's like a fountain where the water is allowed to gush forth unchecked' (719c), a description which brings to mind the tripod of the Pythia in the sanctuary at Delphi (Aguirre 2016).

According to Thrash and Elliot (2003), inspiration has three core characteristics: transcendence, evocation, and motivation. Transcendence means that one gains something better than usual and sees better possibilities. Evocation means that one does not feel directly responsible for becoming inspired. Also, inspiration involves motivation, which makes one express or manifests that which is newly apprehended. Thrash and Elliot (2004) argue that an episode of inspiration may be broken into two conceptually and functionally distinct component processes: being inspired by and being inspired to. Being inspired by refers to being moved by the perceived intrinsic value of an eliciting object (e.g. a role model, a creative idea, or a spiritual revelation). Being inspired to refers to the motivation to

transmit or extend the inspiring qualities exemplified in the evocative object. These processes are posited to give rise to the core characteristics of inspiration, such that being inspired by involves transcendence and evocation, whereas being inspired to involves approach motivation.

How to differentiate the general inspiration construct into specific types has been a problem for many scholars. Based on Thrash and Maruskin (2010), there are three forms of transmission: replication, actualisation and expression. In the case of replication, one can be inspired by one object in the external environment. If a poet is moved by news or someone's story, then the story could be used as the basis of one poem. Actualisation is a response to the qualities of a seminal idea, which often arises from the unconscious and enters awareness during a moment of illumination or insight. In the creativity domain, an individual may get an idea for a new poem and become motivated to bring the new poem to life. Expression, the third transmission, is prompted by a compelling idea that arises through unconscious processes. A poet may record verse that comes to mind spontaneously as if it is delivered by a Muse (Thrash et al. 2014).

As one kind of supernatural influence, inspiration provides a prototype for our conceptualisation: firstly, the individual apprehends something beyond his or her usual capacities (i.e. transcendence), because the influence is from outside, beyond the self (i.e. evocation), and then he or she is moved to communicate or implement that which is newly apprehended (i.e. motivation) (Thrash and Elliot 2004). Thrash and Maruskin (2010) also identified actualisation of a creative idea as the prototypical form of inspiration within the context of creative activity.

2.2.2 Where is inspiration from?

In the Greek poetic tradition, the invocation of the Muse is not uncommon, and getting inspiration from Muse can be seen from Homer and Hesiod's poems. Inspiration from the Muses is a resource of poets in their poems, and

the poets themselves can understand the inspiration from the Muses. In Homer's *Odyssey*:

And summon hither the divine minstrel, Demodocus; for to him above all others has the god granted skill in song, to give delight in whatever way his spirit prompts him to sing.

Then the herald drew near, leading the good minstrel, whom the Muse loved above all other men, and gave him both good and evil; of his sight she deprived him but gave him the gift of sweet song (*Odyssey* VIII, 44-46; 62-64).

In the *Iliad*:

Tell me now, ye Muses that have dwellings on Olympus—for you are goddesses and are present and know all things, but we hear only a rumour and know nothing—who were the leaders and lords of the Danaans. But the multitude I could not tell or name, nay, not even if then tongues were mine and ten mouths and a voice unwearying, and the heart within me were of bronze, unless the Muses of Olympus, daughters of Zeus who bears the aegis, call to my mind all those who came beneath Ilios (*Iliad* II, 480-492).

All these cases show that the poets have inspiration from the Muse. According to Socrates, Ion's ability to speak well about Homer is a result of inspiration from the Muse, and Ion's ability to interpret poems is just limited to Homer, which means his ability of interpreting is selective. Both facts show that poetic activity does not possess a *techne*.

Originally, inspiration means that a supernatural being makes an influence on the individual who is taken as a conduit to deliver some divine truths. In ancient Greece, the Muse was said to inspire the poets to compose beautiful poems (Leavitt, 1997). We can see from Plato's dialogues that the poets were inspired by Muse and then the poets inspire their rhapsodes, then the audiences. In this way, divine messages from the Muse are conveyed to all. Even in modern times, it remains common that some artists and other creative individuals attribute their best and creative ideas to supernatural and unknown forces (Ghiselin, 1952; Harding, 1948). The word 'inspiration' is also applied in numerous ways within the scientific literature on creativity.

Some usages are the following: creativity per se (Chamorro Premuzic, 2006; Schuler, 1994); a motivational state that leads to creative activity (Piirto, 2005); an external stimulus that evokes a creative state (Weisberg, 1993); the process through which an idea emerges into awareness or the associated subjective experience (Martinadale, 1989; Simonton, 1995; Weisberg, 1993).

2.2.3 Inspiration and Creativity

After the discussion of divine inspiration, we have seen inspiration plays an important role in creativity. Why does inspiration matter? Kaufman (2011) claims 'inspiration awakens us to new possibilities by allowing us to transcend our ordinary experiences and limitations. Inspiration propels a person from apathy to possibility and transforms the way we perceive our own capabilities.'

According to Rothenberg (1970), the concept of inspiration means an intrinsically dramatic experience and it indicates more than the simple achievement of a good idea and 'Plato was probably the earliest, or one of the earliest, philosophers to analyse the nature of poetic creation and he described a "divine madness" inspired by the muse'. What is the role of inspiration in the poetic creative process? He summarised the psychological sequence in poetic creation. Generally, a poem begins with a mood, visual image, word or phrase. The poets usually refer to the formulation of a word or phrase as the inception of a poem. Sometimes, a poem began with a moral or intellectual statement in mind. But many poets think that poems should not be constructed primarily but they should be spontaneous emotive outpourings like getting inspiration from someone or somewhere.

A creative idea is expected to inspire because it satisfies the criteria of transcendence (i.e. the idea is novel), evocation (i.e. the idea arises from the unconscious), and approach motivation (i.e., the actualisation of the idea provides a course of action). If creative ideas inspire and if inspiration

motivates actualisation of those ideas, then inspiration should predict the creativity of the resulting product.

Creativity is predicted by inspiration and we expect inspiration to predict indicators of creativity. Inspiration is the springboard for creativity. Being in a state of inspiration also predicts the creativity of writing samples across scientific writing, poetry and fiction and aspects of the product quality. Inspired writers are more efficient and productive and spend less time pausing and more time writing. The link between inspiration and creativity is consistent with the transcendent aspect of inspiration since creativity involves seeing possibility beyond existing constraints (Kaufman, 2011). Then is inspiration a stage of the creative process? Thrash et al. (2014) do not identify inspiration as a stage, since they think that stages tend to be defined in terms of characteristic behaviours (e.g. preparation) or events (e.g. illumination), whereas motivation constructs, such as inspiration are conceptually orthogonal to particular behaviours and events (Thrash and Hurst, 2008).

Inspired people share certain characteristics. Thrash and Elliot (2003) developed the 'Inspiration Scale' to measure the frequency with which a person experiences inspiration in their daily lives. They found that inspired people tend to be more open-minded, and more absorbed into their own work. Also, the inspired people are more intrinsically motivated and less extrinsically motivated and more likely to be creative. The inspirational creativity is one of the widespread views on creativity, which takes creativity as mysterious or divine. However, Boden (2004) has a different idea and argues that this view on creativity is very pessimistic because it makes very difficult to explain creativity scientifically.

2.3 Creativity and *Techne*

When it comes to the concept of inspiration, the concept of *techne* is frequently mentioned and it is also closely associated with creativity. The

concept of *techne* appears many times in Plato's dialogues. '*Techne*' is used, in all its inflexions, 675 times in his dialogues. As to the frequency of the word '*techne*' used in all the dialogues, the *Ion* has the second-highest frequency (Roochnik 1996, 259). Also, there are 187 occurrences of words derived from (or including) it (Roochnik 1996, 253). As a result, a complex account of *techne* has developed in Plato's dialogues. Stern-Gillet (2004) claims that:

We may infer that an activity ranks as a *techne* if: (1) it aims at truth; (2) it embodies general principles on the nature of its subject-matter or defining activity; (3) it derives from such principles standards of excellence; (4) it is concerned with the good of its object or recipient; (5) it can give a rational account of itself; and (6) it can be imparted by teaching.

One obvious and important feature of *techne* is that it is associated with knowing how to do some certain activities, and there are rules and principles in it. In the dialogue of *Ion*, Ion thinks that the rhapsode 'will know that it's fitting for a man or a woman to say—or for a slave or a freeman, or for a follower or a leader' (*Ion* 540b), the rhapsode is much like the rhetorician.

The concept of *techne* is more richly developed in the *Ion* than might have been expected from a dialogue of that size and relative date… A *techne,* Socrates repeatedly tells Ion, is a sphere of cognitive activity based on rules and principles which any competent practitioner should be able to extrapolate. What is more, such principles yield criteria using which the merit of the products or characteristic activities of a *techne* can be appraised' (Stern-Gillet 2004).

The rules and principles of *techne* are general and can be applied to a wide range of objects but not just one object, for example, we do not say a doctor has *techne* if he can treat only one or two patients. Possessing a *techne* means the possession of ability or expertise and the person who possesses it can apply certain knowledge to the specific domain. For example, a doctor knows how to make a diagnosis for their patients, a charioteer knows how to drive a chariot, a navigator knows how to lead a ship. They all do their work

according to some rules and they should be able to apply the rules to other subjects in their fields, for example, a doctor can apply his rules to many patients instead of only one patient, a charioteer can know how to drive many different chariots but not just one chariot and they are aware of the rules they are using. However, as Socrates has shown, Ion does not act like a doctor or fisherman, since he does not have an expertise which can be taken as the systematic knowledge of a definite subject-matter, so Ion's success does not stem from a *techne*. In Platonic understanding, each *techne* has only one specific, exclusive function in a specific area, which makes each *techne* different from others. Therefore, the same function cannot be shared by different *techne*, and it is also impossible to have *techne* with an exclusive function, and one *techne* cannot deal with subjects in different areas either. Possession of a *techne* implies the person has knowledge of all possible cases in one specific domain but not only some of them (Aguirre, 2016). Ion's ability of rhapsodising is not from *techne*, since he cannot interpret other poets, only Homer, even if those poets talk about same subjects, like society, war, and people, etc.

There is a fundamental aspect of the strategy established by Socrates in his dialogue with Ion, as it will serve as initial criteria for the identification of those who have *techne*. The criteria are the universal validity of *techne*, which indicates it applies to any case. The criteria are established by Socrates in response to Ion's affirmation that he is only skilful in Homer but no other poets. The foundation of the identification criteria for technites is the validity of what could be called the totality principle, since affirming that a *techne* is a totality means attributing to the person who possesses it a form of knowledge which cannot be divided (cannot be reduced to Homer), at risk of dissolving like real expertise. Ion himself accepts the universal validity of the principle, however, he is not persuaded by the philosopher, given that personal experience clearly shows him that his interest is reduced to Homer and no other poet. Each type of poet possesses a unique compositional style, depending on the ability with which the Muse has identified him, thus it is

proved that rhapsodic and poetic activities do not depend on the possession of *techne*. However, Ion's exclusive interest in Homer indicates that he does not possess knowledge about the totality of the poets, object of a hypothetical rhapsode *techne*, which allows Socrates to deny him possessing of *techne* (Aguirre, 2016).

In *Ion* and other dialogues, the notion of *techne* is also closely associated with episteme, which is usually translated as knowledge and sometimes overlaps with the notion of *techne*. *Techne* refers to specialised expertise which implies the effective practical application of certain rational knowledge, whereas episteme points more towards general expertise which could be identified with the theoretical component of *techne* related with comprehension (Aguirre, 2016). The episteme also appears as knowledge capable of explaining why the technites carry out their function as they do, in such a way that if someone wishes to know a real doctor who is a technite in possession of the techne, he must speak to him about medicine, as this constitutes the knowledge or episteme which corresponds to him as a doctor.

Plato also differentiates the *techne* of knowledge acquired through mere experience (empeiria), since the possession of a *techne* qualifies one to know the nature of things and account for their cause but the possession of empeiria does not. In the philosopher's view, *techne* and empeiria are not only differentiated by their distinct explanatory capacity, but also by their different commitment to the good of the object to which they belong, since the commitment to truth and good which the technites have does not exist in a man of simple experiences. This intimate connection which Plato establishes between *techne* and good is fundamental when it comes to understanding the political and ethical undercurrent of the critique deployed by Socrates in *Ion* and other dialogues against poetry.

The connection between *techne* and virtue can also be seen in the earliest dialogues. In ancient times, the poets and rhapsodes are figures who are closely linked to the preservation and transmission of values in society. The

Platonic concern with the *techne* of poets and rhapsodes is closely related to the interest in the formation of competent citizens in the honest and effective government of the polis, as the legitimacy of poets and rhapsodes as educators of the Greeks will depend on the identification of such activities as *techne*. In Plato, there is a great interest in diluting any link between poetic activity on the one hand, and productive *techne* and ethical and political excellence on the other. The expression of all this can be found in the passage from *Republic*, Socrates denies that Homer possesses any *techne*, not only in the field of medicine, nor other fields, such as government, legislation, or education. Furthermore, Socrates denies that Homer possesses the true knowledge to qualify him as a guide and educator in moral excellence. In Platonic analysis of poetry and rhapsody, the notion of *techne* operates as a desirable model of knowledge in ethical and political areas, and as an alternative model to that proposed by poets, sophists and orators, whose failure in the government of the polis exposes their ignorance (Aguirre 2016).

In Ion's case, Socrates denied that Ion's ability to talk about Homer is from *techne*, and it is just inspiration from divine being that makes him capable of interpreting Homer. Consequently, the creative process in *Ion* does not involve skills, and it is not teleological.

However, some scholars hold different opinions, Gaut (2009) claims that when people looking for the means to achieve their goals, creativity could be there. The creative process can be goal-directed, and skills could play an important role in it. Therefore, creativity can be teleological, and a detailed specification of one's goal is also involved in the creative process.

Creativity can be teleological, but it is not always how creativity is. Inspiration, such as the inspiration Ion or the poets got, is also an important element in creativity, although it does not fit the teleological account. For when someone is being inspired, he is passive to gain the creative idea, and if someone is

struck by inspiration, then there will be no space for choosing the means and specifying the end, as a result, there is no conceptual space for skill.

Plato's supernatural creativity theory may oppose creativity to skill, for example, in *Ion*, creativity is a supernatural force since the gods or muses speak through the poets and then rhapsodes. When they are interpreting or composing poems, they are not in their own mind. But there is one problem: where is the god's creativity from? In *Ion*, although Plato takes Tynnichus as an example of how the gods choose someone to show his creativity, he never supports him again, as a result, there is not enough evidence to show the god's creativity (*Plato, Ion, 534d-c*). What is more, creative people tend to be able to produce not just one creative thing, rather not like Ion who can only do his creative work on Homer. Another argument from Kant claims that the creative process cannot be explained. Kant claim that: 'Genius is the innate mental predisposition through which nature gives the rule to art'; and by 'nature', he means 'the supersensible substrate of all his powers,' the noumenal realm, which is impossible to make a scientific explanation (Kant, sec.46, Ak.307; sec.57, Ak,344). However, psychological research already provided us with lots of evidence showing that creativity can be explained scientifically, and the creative ability can be enhanced through teaching, or by learning.

Does the passive element to creativity pose threat to the teleological account? The answer can be no, for the whole creative process involves a process of preparation, then incubation, then a sudden moment of inspiration, and ending with clarification (Wallas 1970). According to Wallas, the inspired creative ideas are not from nowhere, rather, there can be a long process of preparation before them. In addition, whether the idea is from inspiration or not depends largely on the person's skill and interests. Since one's interest identifies one's goal, therefore, inspiration is closely related to that of one's goal (Gaut 2009). We can take the creative activity as a comprehensive process, consisting of searching for ideas actively, and at the same time consist of ideas thrown up by a person's unconscious skill or interests. Baehr

(2018) claims that the skill dimension of creativity has two main aspects: cognitive and productive aspects. In a cognitive aspect, a creative person can recognise new possibilities, while in the productive aspect, a creative person can create something new and valuable based on their creative idea.

However, even though we think creativity is intellectual, the intellectually creative activity is not always considered and even an intellectually creative person sometimes cannot articulate how his or her creative creativity works or being rational. That is partly because we often take creativity as working in a kind of muse-like fashion, which, as a result, leads to an irrational view on creativity. For example, Plato, in his dialogue, described the creative process as one kind of irrational activity, since the creative ideas are from outside, like a divine being, but not from the 'creative individual' and those who are creative are out of their mind when they are creating.

Is this muse-like fashion contradictory to the intellectual feature of creativity? Baehr (2018) claims that actually the intellectual creativity is consistent with the muse-like fashion, since the muse-like fashion working in a person's imaginative ability might contribute to that person's creative activity, and intellectual creativity involves a spontaneously generated creative idea generated by using imagination, which illustrates the product of creative imagination is not necessarily distinct from the function of intellectual creativity. In addition, a great amount empirical research also shows although it seems that creativity sometimes works suddenly or unpredictably, those creative ideas do not come from nowhere, instead, they are shaped by the person's practice in creative environments for a long time, which contributes to the creative person's imagination. Therefore, taking creativity as only working in an irrational or muse-like way is not the whole story.

If the inspiration comes from the divine being, does it lead to a low view of creators, since they just accept the inspiration passively and look more like discovers rather than creators and it seems we can become creative without any effort? However, this is not the real case, since effort, skills and

knowledge are required in cases of creativity. Gaut (2010, 1040) claims that 'Being creative is incompatible with doing something purely by luck', and a creative agent can understand his or her own work and has the evaluative capacity to assess his or her work. When we talk about a creative person, we usually mean someone who is largely full of passion, desire, and not afraid of struggling, but not someone just waiting for outside inspiration.

According to Plato's metaphysics, all possible things already exist as abstracta, which has already clearly shown in his theory of Forms. If we consider creative works from this perspective, the creative works of art, music and scientific technologies already existed as abstracta before their obtaining. Taliaferro and Varie (2018) claimed that before Picasso or Mozart made their creative works, their works already existed as a state of affairs and the artists just made those states of affairs obtain. Since the state of affairs has already existed, it could have been another individual to make that creative work. But the fact is, although another creative individual may also make those creative works, the associated individual, like Ion, was the only person to have obtained that state of affairs. If this is the case, from Plato's metaphysical point, does this give us a very passive image of creative individuals? Taliaferro and Varie (2018) offer phenomenological and theological arguments to defend that Plato's metaphysics did not leave a very anaemic understanding of creative individuals. Firstly, they take creative individuals as persons with passion, desire, and ready to struggle and creative individuals are active to make certain states of affairs obtain even though others could achieve their goal. Through examples of music composers, they conclude that even in the highly intuitive creative process, the creator still showed passion, desire and willingness to make effort, creativity is not devalued, so the creativity of the creator is not declined in Plato's model. They developed their theological argument from the religious tradition, which God is taken as the creator. It is known to all that God created everything from nothing, however, according to Plato's metaphysics, theoretically, God should have some prior 'material' for his creativity. Then,

how can we solve the problem that if we think God creates everything from nothing while he should have prior 'material' according to Plato's theory? They argued that the concept of God creates everything out of nothing can be misleading, and it is also misleading to interpret divine creation as an act of nothing other than desire without any prior thought. Those prior abstracta in Plato can be seen as divine ideas in the mind of God, from this aspect, we can think God creates everything based on his divine knowledge or ideas inside his mind. They conclude that instead of devaluing the meaning of creativity, Plato's theory model provides us with a richer understanding on how God as the creator creates everything from 'nothing', which may be abstracta in his divine mind.

2.4 Creativity and Rationality

From Plato's *Ion*, many scholars take the idea of poetic creativity as irrational. Besides *Ion*, we can also find the evidence from his other dialogues, for example, in *Phaedrus*, he says that 'if any man come to the gate of poetry without the madness of the Muses, persuaded that skill alone will make him a good poet, then shall he and his works of sanity with him be brought to naught by the poetry of madness, and behold, their place is nowhere to be found' (Plato, *Phaedrus*). Plato takes the creativity of poetry as an inspiration from the Muses, and it seems he has been the first to interpret inspiration as a kind of madness. His main argument on poetry creativity in *Ion* claims that poetic emotions are irrational: although the poet, the rhapsode and the audience know those things described in the poem did not happen to them, they can still feel fear or sorrow.

Plato's thought on inspiration and madness is very influential, and we can find other philosophers in history hold a similar argument, though they are different from Plato's. For example, Arthur Schopenhauer claims that genius is 'closely akin to madness' in his *The World as Will and Representation*. Also, Friedrich Nietzsche holds an irrational tradition. In *The Birth of Tragedy*, he thinks the power of tragedy is fundamentally dependent on its Dionysian

wisdom, which cannot be grasped by reason but only by instinct. Also, Nietzsche (1967 88) claims that:

Reason undermines creativity since he thinks creative activities depends on instinct. While in all productive men it is instinct that is the creative-affirmative force and consciousness acts critically and dissuasively, in Socrates it is instinct that becomes the critic, and consciousness that becomes the creator—truly a monstrosity *per defectum*!

Psychological research also provides us with a large body of evidence on the link between creativity, artistic creativity and many kinds of mental illness. For example, Kay Jamison did her research on 36 major British and Irish poets born between 1705 and 1805, as a result, she found that thirteen of them were likely bipolar I, while the other six, including Robert Burns, suffered from the similar disease, only a little bit milder than those thirteen. In addition, she studied 47 contemporary British writers and artists, and she found out that 38 percent of them had been under medical treatment for a mood disorder. Based on this evidence, she came up with a mechanism on the relation between bipolarity and creativity, claiming that manic phases can help a lot to produce creative ideas, whereas ideas generated in normal or mildly depressed phases could be easily criticized or refined (Gaut 2012).

Although it is obvious that Plato holds the irrational position in *Ion* for poem creativity, we can also see a rational disposition in him. In some of his dialogues, he claims that painters, sculptors and musicians are following the *techne,* namely the craft, skill, or knowledge. There is not just the irrational position on poetry creativity, some scholars, such as Gaut (2012) thinks Aristotle defends the rationality of poetic creativity. Aristotle has an account of the composition of poetry in his *Poetics*, 'poetry demands a man with a special gift for it, or else one with a touch of madness in him; the former can easily assume the required mood, and the latter may be beside himself with emotion' (*Poetics,* chap 17, 1455a32–34). Gaut with several scholars hold that in the *Poetics*, a mad poet is not consistent with the basic framework made by Aristotle, and also evidence showed that it is actually 'rather than

one with a touch of madness', but not 'or else one with a touch of madness'(Halliwell, 1987; Lucas, 1968). In addition, Aristotle's poetry creativity process is a process of making, starting with a goal, then refining the goal, and developing means to it. In *Poetics*, the goal of tragedy is to bring out fear and pity in the audience and then to purify those emotions with some means, such as one kind of plot including characters worthy of pity, reversals of fortune and recognition. Therefore, tragedy creativity has a teleological process, and poetic creation is a rational activity, involving goals and means. Although we tend to agree with Plato that emotion toward an object that does not exist is irrational, emotions could be rationally felt or imagined, for example, we can imagine events which do not happen to us yet, and feel genuine emotions or make rational decisions with the help of imagination.

2.5 Creativity and imagination

Most scholars agree that the concept of creativity has a very close connection with the concept of imagination, and we usually tend to think when a person is creative, he must exercise his imagination in the creative process.

As to the imagination, Audi (2018) claims that it has many different dimensions, such as the analytical and synthetic insight to distinguish and connect different things, the foresight to see consequences or anticipate sometimes, which can be enhanced by education and experience. However, the imagination also has dimensions of inventiveness, such as instrumental inventiveness, which aims to look for new means, and intrinsic inventiveness, which can yield valuable ends. These two kinds of inventiveness are connected and can be combined. Creative people are usually stronger in one of these dimensions, and those dimensions of imagination are very suitable for creativity and can also promote one's creative ability.

On the relationship between creativity and imagination, Gaut (2003) thinks that we should distinguish two different kinds of creativity, passive creativity and active creativity. Inactive creativity, subjects use their imagination actively during their creative process, so it is more reasonable to say imagination is one aspect of the creative process, but rather the recorder of creative products. During the creative process, the creative person is working through various possibilities and searching for the best to the problem with a powerful and active imagination. The process of working out various possibilities with imagination is the indication of active creativity.

During the process of creativity, the creative person uses imagination to search for the best solution, which shows that imagination is a 'vehicle of active creativity', but not a source of creativity (Gaut 2003). Imagination is particularly an appropriate vehicle of active creativity because of its nature. As an intentional state, imagination is different from beliefs or intentions, since imagination has a kind of freedom and does not need to take any responsibility for the case or action, so the creative person can freely imagine different approaches, play with various assumptions and find out the best one, without any worries on the truth of the claims.

Kant's account of genius to the imagination in his *Critiques of Judgment* (section 46-50) can provide us with some clue on how creative imagination works. He claims, fine art is the art of genius, 'the foremost property of genius must be originality' (175), and the products of genius must also be exemplary. Genius has the ability:

to exhibit aesthetic ideas; and by an aesthetic idea I mean a presentation of the imagination which prompts much thought, but to which no determinate thought whatsoever, i.e., no [determinate] concept, can be adequate, so that no language can express it completely and allow us to grasp it', also, imagination is 'a power to intuit even when the object is not present (313-314).

Kant connects exemplary originality to the imagination, and he thinks when imagination exhibits aesthetic ideas, imagination is creative. Additionally, Kant claims that the power of aesthetic ideas can fully manifest itself in the art of poetry (314), and aesthetic ideas in Kant's mind are metaphors, which are most clearly present in poetry (Gaut 2003). Gaut thinks that Kant's connection of creativity with imagination is in his employment of metaphor-making, since a good metaphor-making exhibits imagination and creativity, with creating a new way to look at or think about some familiar objects and showing originality, flair, and value of aptness. Metaphors are very common in many creative areas, especially in poetry. In *Poetics*, Aristotle claims that for a poet 'the greatest thing by far is to be a master of metaphor. It is the one thing that cannot be learnt from others; and it is also a sign of genius, since a good metaphor implies an intuitive perception of the similarity in dissimilars' (*Poetics*, 1459a5-8).

2.6 Conclusion

Through the examination of Plato's dialogue, *Ion*, I have shown the how the poets and rhapsodes compose or interpret poems. According to the dialogue, the divine inspiration is the source of their creativity, and they are just conveying the messages of divine beings. One essential feature of the inspiration is that it comes from some outside source, such as the divine being, but not the conscious mind.

This divinely inspired tradition exerted long and profound influence. Even now, it remains common that some artists and other creative individuals attribute their best and creative ideas to supernatural and unknown forces. Creativity is predicted by inspiration and we expect inspiration to predict indicators of creativity.

Although in Ion's case, his creative ability is not associated with *techne*, creative process can be goal-directed and skills could play an important role in it. In addition, the muse-like fashion is not necessarily contradictory to the

intellectual feature of creativity, since the muse-like fashion working in a person's imaginative ability might contribute to that person's creative activity.

Chapter 3 Modern Lateral and Emotional Creativity

The study of creativity has always been associated with mystical beliefs, and the earliest account of creativity was perhaps from the divine inspiration, which is shown in Plato's dialogue, and Plato claimed that it is only when the Muse dictates that the poets can create. According to Plato, poetry is the lowest kind of madness out of the four: love, prophesy, Bacchic celebration, and poetry (*Phaedrus* 248d–e). In *Phaedrus,* he says that 'if any man come to the gates of poetry without the madness of the Muses, persuaded that skill alone will make him a good poet, then shall he and his works of sanity with him be brought to nought by the poetry of madness, and behold, their place is nowhere to be found' (*Phaedrus* 245a). In *Ion*, he comments that poetic emotions are irrational, since they can still be felt even when there are no events that would justify them.

This concept of inspired creativity has exerted profound influence, and even today many people still think their own Muses are their source of inspiration. For example, Kipling (1985) thought that there was a 'Daemon' living in the writer's pen: 'My Daemon was with me in the Jungle Books, Kim and both Puck books, and good care I took to walk delicately, lest he should withdraw…when your Daemon is in charge, do not think consciously. Drift, wait, and obey' (162). Plato's inspired creativity represents the ancient romantic approach on creativity research.

Generally speaking, there have been two broad ideas about creativity over the centuries: rationalism and romanticism. Rationalism asserts that creativity is generated by the conscious and rational mind, whereas romanticism holds the belief that creativity comes from an irrational unconscious (Sawyer 2012,

23). The Romantics argued that creativity requires a temporary escape from the conscious ego. Wordsworth (1957, 116) called it 'the spontaneous overflow of powerful feelings'. Shelley (1965, 70–71) wrote that 'poetry is not like reasoning…this power arises from within, like the colour of a flower which fades and changes as it is developed'.

This Romantic view has exerted a profound influence because within it the irrational elements, for example, imagination, emotion, and feelings are valued; and it is also the ground of contemporary notions of creativity in which the poet or artist has a privileged status as the epitome of the human spirit (Engell 1981).

The Romantics believed that a regression to a state of consciousness and freedom from rationality and convention are necessary in creativity, which Plato describes as divine madness. Plato believed the source of poetry is an inspiration from the Muses, and he seems to be the first to construe inspiration as one kind of madness (Murray 1989, 18).

All of the Romantic views on creativity have a common feature, which is that they differ from the conventional and traditional logical ways of thinking. In other words, they are non-linear. Especially in modern theories of creativity, scholars pay more attention to individual creativity, including the theories of lateral thinking creativity and emotional creativity. In this chapter, I will try to show how the way of lateral thinking and emotions stimulate individual creativity.

3.1 Lateral Thinking and Creativity

There are many modern theories about what creativity is and how to be creative, among them the theory of lateral thinking from Edward de Bono, which is more developed than most other theories and has been the dominant theory for many years.

De Bono explicitly claims that 'in any self-organizing system, creativity is absolutely essential' (1993, 63). This is obvious as '[t]here can be no doubt that creativity is the most important human resource of all. Without creativity there would be no progress, and we would be forever repeating the same patterns' (de Bono 1993, 169). But he also has realized the difficulty of the concept of creativity and made a distinction between serious and divine creativity:

The very word "creativity" is a huge concept trap in the English language. It covers everything from just making something happen (like creating a mess) to artistic creativity, to mathematical insights, to finger-painting by children. That is one of the reasons, among many, why we have done so little about the matter. It was precisely to escape this concept trap that I invented the term "lateral thinking" to apply very specifically to the changing of concepts and perceptions in a self-organizing patterning system (1990, 105).

He thinks one of the most serious problems of the whole thinking culture is:

that every valuable creative idea must always be logical in hindsight. If it were not logical in hindsight, we should never be able to appreciate its value. It would just be a crazy idea suspended without any support. We might catch up with it later or not at all. So we are able to appreciate only those creative ideas which are logical in hindsight (de Bono 1990, 89)

His lateral thinking theory indicates an innovative attempt to cut across the habitual processes and demystify the creative process, which some scholars have also recognized as an important development compared with earlier views (Isaksen 1987; Parnes 1992).

3.1.1 Lateral thinking

The concept of lateral thinking was invented by Edward de Bono in 1967, and over the following decades this concept has become almost universally acknowledged. Lateral thinking is one type of creative thinking: The type of creative thinking that can be learned, practiced, and used by everyone. Some

people will be better at it than others, as with any skill. Learning lateral thinking will not make everyone a genius, but it will supplement existing thinking skills with a valuable ability to generate new ideas (de Bono 1993).

Lateral thinking aims to change habitual response that has been shaped by perceptual frameworks through deliberate mental effort. In the process, valuable and unexpected ideas would be unveiled, which are primarily useful to individuals but sometimes influential even in groups, organizations, or cultures. Lateral thinking can be used not just for problem-solving but also in other areas, such as art, science, and education.

As one category of creative thinking, lateral thinking is a special type of information handling. De Bono considers lateral thinking a skill that can be improved by practising. This is because lateral thinking is concerned with applying systematic methods, which is a departure from the view of creativity as a mysterious talent that only some people possess. De Bono offers several techniques to help people generate different options for solving a problem; the techniques include 'six thinking hats', mind mapping, and random stimulation, with the purpose of inverting and altering the situation and allowing the consideration of interesting new directions.

Lateral thinking is usually associated with solving problems in a non-linear or illogical way. We also should note that in the lateral thinking process there is a shift in perception that could show any previous assumptions to be possibly false or debatable. The best way to describe lateral thinking is to say: 'You cannot dig a hole in a different place by digging the same hole deeper' (De Bono 1969). This statement emphasizes the search for different approaches and different ways of looking at things. We can see from de Bono's definition of lateral thinking that its philosophical approach is conveyed by the analogy of digging a hole. In contrast to structural thinking, which is represented by digging down in depth, lateral thinking is analogous to looking for a new spot to start digging.

The basis of lateral thinking is the hypothesis that the human brain is a self-organizing information-processor and its output largely depends on its environments and previous experience. The chances of individuals or groups developing novel and creative perspectives will be increased by using lateral thinking because the technique allows information to be processed in different ways and established cognitive patterns to be changed. Therefore, the concept of lateral thinking argues against the assumption that only certain people are born creative, and it also implies that it is possible for individuals or groups to use simple methods to generate novel ideas quickly.

The mechanism of lateral thinking provides a cognitive explanation of the process of insight, which is thought significant to the act of creativity (Koestler 1964; Sternberg and Davidson 1995). The process of insight is generated within a self-organizing pattern and usually produces a deterministic outcome rather than an unexpected one. But during the use of lateral thinking methods, traditional and sequential delivery of information is disrupted; as a result, disruptions in anticipated cognitive patterns can occur, from which novel perspectives could be generated.

A liberation from old ideas and the stimulation of new ideas are two fundamental aspects of lateral thinking. Sutcliffe (1997) evaluated lateral thinking and states:

The potential is clearly to create many, if not wholly, new ways of thinking about all sorts of things (not only practical or material problems); the limitation is quite simply that not every new idea is a good idea. There always remains, as de Bono often admits, a need to subject creative ideas to critical analysis as part of a continual drive towards real improvement.

Sutcliffe emphasizes the importance of critical analysis and we should not undervalue it, because 'we recognise the need for better designs in the first place, apply appropriate strategies and procedures for coming up with them in the second place, and eventually appreciate the better designs when they are put forward'. It is particularly important to analyse concepts since 'without

clear analysis our thinking, and therefore our designs, cannot move forward'
(Sutcliffe 1997).

In addition, Sutcliffe (1997) challenges de Bono for his claim that:

We need to be able to design ways forward – leaving the cause in place",
which reflects "pessimism" and is a particularly curious remark from one who
earlier placed such great emphasis on "what may be" and "what can be" in a
changing world, rather than on "what is" in a world misconceived as stable".'
There is, therefore, no reason to accept 'the notion that the causes of so
many problems have to be "left in place".

Sutcliffe (1997) agrees with de Bono's idea to 'design ways forward', but 'we
need to concentrate on the very tools of our thinking – especially the words
or concepts that we use, more or less creatively, to resolve our problems'.

3.1.2 Lateral thinking and vertical thinking

Lateral thinking aims to search for different approaches of looking at things,
which makes it different from traditional thinking; that is, the vertical thinking
where 'you take a position and then you seek to build on that basis….The
next step has to be related and logically derived from where you are at this
moment. This suggests building up from a base or digging deeper the same
hole…' (de Bono 1993, 52–53). In vertical thinking, there are sequential steps
and each step should be justified, whereas in lateral thinking one could be
wrong at some step and the information collected at some stage could be
irrelevant.

According to Hauser (1977), vertical thinking usually consists of 'thinking that
proceeds in a stepwise fashion applying specific rules in order to reach a
definite goal', which indicates that it is a linear process where usually only the
most relevant and correct information for the problem is selected. With
vertical thinking, we are capable of making correct decisions through an
analytical and sequential thought process, which is very useful in scientific
research. However, lateral thinking requires a breadth of knowledge and

skills (de Bono 1994). As a form of creative thinking, both reasoning and imagination are involved in lateral thinking. It does not confine itself to the linear direction of vertical thinking, which aims to develop an existing pattern. Instead, lateral thinking is able to construct a new pattern or restructure an existing pattern.

Unlike the sequential steps of vertical thinking, lateral thinking seeks to pursue different directions when solving problems, and it is not restricted by the relevance or irrelevance of information. Lateral thinking involves changing patterns; it tries to restructure a pattern through arranging things in a different way, in order to find a better and more effective pattern. Typically, lateral thinking produces multiple or alternative answers and incorporates unexpected combinations of available information, links among remote associates, and information transformation.

In contrast, vertical thinking aims to derive the single best answer to a given question. It emphasizes logic, accuracy, and information accumulation. Therefore, it is especially effective when there is a pre-existing answer that just needs to be recalled from stored information with a conventional and logical search. One of the most distinctive aspects of vertical thinking is that it seeks a single best answer and there is no room for ambiguity.

However, we should also note that even though there are distinctive differences between lateral and vertical thinking, they are also associated with each other. For example, lateral thinking can improve some routine processes that make up vertical thinking:

I regard creative thinking (lateral thinking) as a special type of information handling. It should take its place alongside our other methods of handling information: mathematics, logical analysis, computer simulation, and so on. There need be no mystique about it. A person sitting down with the deliberate intention of generating an idea in a certain area and then proceeding to use a

lateral thinking technique systematically should represent a normal state of affairs. (de Bono 1993)

In addition, according to de Bono (1990), although lateral thinking and vertical thinking are distinct from each other, one is not a substitute for the other. They both are required and complementary. Vertical thinking is concerned with developing concept patterns, while lateral thinking is concerned with restructuring and provoking new patterns of arrangement of information, in which it shows creativity.

3.1.3 Creativity through lateral thinking techniques

There are certain techniques that are helpful in understanding the mechanisms of lateral thinking; for example, the conceptual lateral thinking techniques. However, I will not just examine conceptual lateral thinking techniques in this section. I will also try to extend these techniques by introducing the idea of emotional abilities and developing two new types of lateral thinking: emotive thinking and diagrammatic thinking. Furthermore, I will explore the fundamental principles behind lateral thinking as part of examining these two new directions.

3.1.3.1 Conceptual lateral thinking

Conceptual lateral thinking is based on the properties of the problems and possible solutions, making use of concepts and linguistic formations. There are four basic techniques of conceptual lateral thinking.

The first technique is called the 'random stimulus', and its main principle is to introduce an external conceptual element to disrupt prejudged notions and habitual thinking patterns. People should use the external element when creating solutions.

In this technique, after learning about the problem to be solved, people are asked to use the random stimulus creatively when reasoning or imagining. An intermediate step including a bridging idea is usually involved in this process. Although the idea is not the solution that we are looking for, there is an analogical link between the stimulus and the problem, which will be used to create an ideal solution.

The external conceptual element should be introduced randomly, which can also stimulate creativity. It is important here to use a random stimulation generator by combining different domains. This technique disrupts, adapts, and exploits the formed ideas, which is the spirit of the technique. Many different things can be candidates for random stimulus: a picture, a word, a rule, some text, an analogy, etc.

The second technique, called re-contextualization, is related to the random stimulus but is also different in many ways. This technique takes the familiar and established ideas and solutions and tries to develop them in a new environment, thereby producing new ideas.

In this process, after the problem is introduced, people have to search for a proper candidate for an established idea, and then try to re-contextualize the familiar solution to the problem in the new environment. The familiar established solution will be applied to the new and unfamiliar environment; in this way, the familiar but new application will promote innovation.

The third technique is escapism; its main principle is that a temporary escape from the established will not only contribute to the creation of new ideas but also make the environment of the problem more localized and focused. In this technique, the people need to imagine some elements of the world, which can range from simple facts to basic natural principles or ethical and social norms. The problem is situated in those elements. Then people can build a temporary solution, which will work as a model or basis of inspiration for the real solution to follow.

The last technique is role-playing, which is based on daily experience or intuition. The change of perspective can lead us to new approaches toward a problem, and also can reveal the limitations in our way of seeing that we have become accustomed to (Carruthers 2006). People using this technique should try to imagine playing different roles and try to solve the problem from a new perspective with new solutions. What is important for them is that they realize the new opportunities or limitations that this new role may have.

3.1.3.2 Diagrammatic lateral thinking

Diagrammatic lateral thinking is lateral thinking by means of visual representations of related topics, with the possibility of creating analogical solutions.

Our society is not of a single mode anymore, but rather, it is becoming more and more multimodal. Text is not the only way to convey information; the image is playing a increasingly dominant role in communication. We are surrounded by images, from all kinds of signs to digital icons, and they have become an essential part of our daily life. The first step in finding a solution using diagrammatic lateral thought is to be familiar with the grammar in the image; we also need to interact with the image and extract its structure.

When interacting with the image, three levels are involved in this whole interaction process. In the first level, we take the image as a simple operator; for example, converting a symbol to another. Selecting the right image-operator is the critical task for this level; however, we cannot describe this level as lateral thought yet, though it lays the foundation for deeper connection with the image's structure. In the second level, the analogy between situations based on the image structure should be made. The third and most comprehensive level is to find a solution by using the structure of the image as an analogical guide.

These three levels are very different from simple inspiration because there is a close and detailed connection with the image's inherent structure, which is achieved by a questioning process that helps the people have a deeper understanding of the picture's grammar.

3.1.3.3 Emotive lateral thinking

Emotive lateral thinking tries to increase the possibilities of solution by identifying and assessing the emotional influence of changes in ethical or social norms, a strategy that will produce the possible solution in the relevant audience.

The recent discoveries in neuroscience provide us with the groundwork for this approach, which states that the influence of the world on our emotions is the basis of our understanding of the world (Damasio 1999).

Compared to concepts, emotions are more primitive; it is believed that our actions are always affected by emotions pre-conceptually, and emotions can also affect potential similarities, comparisons and analogies. In turn, concepts can classify and manage our emotional responses (Damasio 1996). We take the community and its social practice and norms as the foundation of the meaningful solution space, according to Wittgenstein's approach to meaning (Wittgenstein 2009). In addition, the study of artificial intelligence shows that emotion plays an important role in a language's semantics (Stenning 2002). Therefore, emotions and norms are what we will work with for our research on creativity.

Understanding how these findings can help shape creativity-enhancing techniques requires introducing the distinction between first order and second order emotive thinking. First order emotive thinking refers to the agent's own recognition of emotional stimulation or the agent's own emotional states; this means that objects and situations in the world have emotive value, and it is essential for agents to establish emotional

equivalence and analogies between different objects and situations. Second order emotive thinking is where the agent recognizes others' emotional stimulation or emotional states. Second order emotive judgment can be implemented by the creative agent to see whether the target audience can accept the change in norms. The agent can also assess the potential of a given solution more accurately and move through analogical solutions by the practice of identifying emotional equivalences.

By radically changing the definition of a solution through a better understanding of the original semantic directors, this form of transformative creativity tries to create a new solution. A very well-known example of such emotive lateral thinking is the 'Judgment of Solomon'. King Solomon resolves a dispute over the parentage of a child successfully by calling for the child to be cut in half, correctly making a second order emotive judgment by recognizing and predicting the emotional reactions from both sides of the dispute.

Emotive judgements evaluate the possibilities of changing emotions in the problematic context, which can stimulate creative resolutions. Emotions can define what is acceptable or not in social and personal contexts; however, changes in emotions can influence the standard of what is acceptable or unacceptable, which can further expand the number of possible solutions when solving problems. For example, the story of the Trojan Horse is a paradigm of lateral creative thinking; Odysseus transformed the attack problem into a deception problem by thinking laterally and creatively, using his emotive judgement that the Trojans would be deceived by the Greeks' token of respect.

Damasio (1994) found in his experiments that people's feelings can effectively influence their decisions, and emotions can guide actions. He also argued that we people are emotionally conditioned within the context of our culture and previous experience, and construct certain internal representations which can help us make decesions in the information-

handling process. These representations are marked by emotional responses and can also build connections between emotion and information, and then they can influence the way we select and process that information. As a result, the emotional feelings can influence our intelligent actions. The interaction of different internal representations could lead to creative acts. Stenning (2011) claimed that emotions implement rational choice theory and reasoning; one key point in his theory is that emotions ground abstract thinking. Generally speaking, how the world impacts on us emotionally determines how we comprehend the world. Our feelings and emotions help us classify things and interact with our environment, which in turn influences our behaviour. Emotion can exert this kind of significant influence because our emotions play a part in the process of reasoning (Scaltsas 2016).

3.2 Emotion and Creativity

According to many psychologists, emotions are constructions organized by biological, social, and psychological factors (Averill 1992; Ekman and Davidson 1994; Fiske and Taylor 1991; Malatesta 1988). Emotion is also defined as responses to events that help adapt the way we think and act in support of our own and others' well-being (Scherer 2009). Some emotions are primarily organized by biological factors, while other emotions are organized by a combination of biological and social factors. These combined emotions can have an influence on behaviour and interpersonal communication (Johnson-Laird and Oatley 1992).

The creative process involves a range of information-processing steps, including problem definition, information gathering, idea generation, and evaluation (Mumford, Medeiros, and Partlow 2012). Emotion can contribute to creativity in several ways (Russ 1993, 1995). For instance, emotions can increase or diminish creativity since emotion can influence people's thoughts and behaviours as well as elements of the creative process, such as idea generation (de Rooij and Jones 2013).

3.2.1 The Influence of Emotion on Creativity

Both positive and negative emotional states are associated with creative work, but they play different roles in creativity. The affective pleasure may be related to problem-finding ability; openness to emotional states may be linked to transformation ability (Feist 1994; Higgins, Qualls, and Couger 1992; Isen 1987; Russ 1993; Shaw and Runco 1994). Certain emotions can enhance creative thinking (Baas, DeDreu, and Nijstad 2008); for example, when people experience positive emotions, it is easier to generate diverse and original ideas (Akhbari, Chermahini, and Hommel 2012). Positive emotions can improve creativity by promoting idea generation; such emotions can improve the flexibility of information combination and consequently increase the chance of original idea generation. On the other hand, negative emotions are associated with diminished creativity because they can reduce the flexibility of information combination and, as a result, lower the chance of original and new idea generation (Baas, DeDreu, and Nijstad 2008).

Thomas Wolfe (1985) asserts in his paper that emotions have a potential influence on creativity because emotion can work as a motivating force. Freud (1959) claimed that through the creative works of artists and writers, certain emotional needs are expressed. For some people, emotions might be impossible to show openly but can be expressed through public art. Emotion may also put the creator of art in a heightened state of awareness. For example, Wolfe (1985) described that his homesickness made him be 'at work night and day', resulting in a 'stream of blazing pageantry' across his mind. According to Isen (1987), when people are in an emotional state, they may notice previously overlooked stimuli, or they may make novel interpretations of the stimuli. Csikszentmihalyi (1990) declared that people could experience flow states of creative work that are induced by their emotions. Some other scholars have proposed that loose and free preconscious thoughts can enter conscious awareness during special states such as daydreams, fantasies, and emotional experiences, encouraging the production of creative ideas (Kris 1952; Kubie 1958). De Bono (1987) claims

that emotions can change the brain's chemistry; in effect, a different brain is doing the thinking, which could lead to diverse ideas or solutions to problems.

In summary, a lot of research has convincingly showed that emotions can influence creative performance. A long-standing view on emotion and creativity is that positive emotions contribute to creativity, whereas negative emotions can be harmful to creativity. But recent research indicates that this view is too simplistic. Some researchers have demonstrated that there is a link between positive emotions and creativity (Isen, Daubman, and Nowicki 1987), while others have showed that negative emotions increase creativity (George and Zhou 2002; Kaufman and Vosburg 1997). George and Zhou (2002) claimed that negative emotions can increase creativity in certain situations because negative emotions could be taken as signals indicating that the current situation is problematic and needs more effort. Conversely, Fredrickson (2001) put forward the 'broaden and build' theory of positive emotions and argued that people take positive emotions as signals that their environment is safe, and therefore their minds are free to become more creative.

Kaufman (2015) in his research found that 'affective engagement', which represents how deeply and broadly people are open to their own emotions, can more effectively predict creativity than other factors such as IQ or intellectual engagement. According to the research done by Roger Beaty, when it comes to creative people, the area of the brain related to focus and attentional control and the area of the brain related to imagination and spontaneity have more connections in the brain network. The whole process of creativity is a mixed state that includes a state of inspiration and a state of rational focus. Therefore, it is easy to conclude that any one of these states alone cannot describe creative people well, since they typically operate in a mixed state (Kaufman 2015).

Research also showed that experiencing mixed emotions can make people more sensitive to unusual or new ideas, and a higher sensitivity to unusual

ideas is another significant factor that contributes to creativity. His research also implies that mixed emotions could be related to unusual surroundings where people work or live (Kaufman 2015). In some highly innovative companies, where employers believe an unusual environment can boost creativity, the working environment offers novelties such as pool tables, free food, free gym memberships, and even bowling alleys. The workplace is full of creative activities and incentives to motivate employees; in return, the employer sees increased employee creativity and productivity.

Some empirical psychological research has shown that artistic creativity and negative affective experience are related (Jamison 1996; Andreasen 1987; Richards et al. 1988; Post 1996; Kaufman and Baer 2002; Kyaga et al. 2011). It is generally known that artists such as poets, musicians, and writers are more likely to suffer from some degree of unipolar depression or bipolar disorder. Jamison (1996) has discovered that artists and writers are far more likely (about eight to ten times more likely) to have depression than other people. However, even though the empirical data shows that there may be a connection between negative emotional states and creativity, it does not mean that there is necessarily a connection for all creative people or creative activities. Since many creative people have never showed any symptoms of emotional disorder or mental illness, we cannot say that negative affective experiences are necessary for creativity in general. The connection applies only in some cases: experiencing negative emotional states can help certain individuals to realize their potential for creativity.

It should be noted that periods of negative affect are not necessarily periods of creative activities; some people have to pass through the negative states in order to create, which shows that a negative emotional state does not always directly contribute to creativity.

However, some hold the opposite position that negative experiences actually contribute to creativity directly and negative emotional states are necessary for creative activities. It is a fact that many artists have suffered from bipolar

disorders; therefore, people tend to conclude that having a manic illness can contribute to creativity (Jamison 1996, 118). How can artists benefit from their negative emotional states? One suggestion is that many artistic works involve artists' emotions, so those who have deep negative emotional states benefit from their emotional experience, gaining special kinds of emotional insight or inspiration that can improve their work.

The interaction between emotion and art is also discussed by philosophers; for example, the power of music upon emotion has been mentioned by Pythagoras, who may have been the first philosopher to comment on the influence of music, with its ability to stimulate and soothe emotion (Budd 1985; Ridley 1995). Long before Aristotle, Gorgias also commented on the power of poetry over the audience: the power of poetry can move its audience to 'a fearful shuddering and a tearful pity and a mournful yearning' (Barnes 1979,161). The feelings that the poetry contains are successfully conveyed to the audience, and the audience can be touched by the emotion in the poetry. Unlike Plato, who criticized the representational art in the Republic, Aristotle defended the role of poetry and emphasized that poetry can help people maintain emotional balance and health. The most explicit theory on the connection between art and emotion is the Expression Theory. There have been several different versions of this theory, and the common point they share is that the value of art is largely in the value of tis expression of emotion (Neill 2005).

3.2.2 Emotion Regulation and creativity

As I have shown, the role that emotion plays in creativity cannot be ignored. Understanding the way emotion can assist thinking can help people decide which task they should choose when they are experiencing emotions. For example, people in negative emotional states tend to do more critical thinking, while people in positive emotional states tend to do more original and innovative thinking (Baas et al. 2008; Palfai and Salovey 1993).

People can apply this knowledge toward choosing or prioritizing their tasks based on their emotion states, in order to work more effectively and efficiently. Additionally, people with this ability can consciously generate the emotions that will benefit their tasks; for example, some people try to make their mood more positive to increase original and creative thinking, and actors or actresses will intentionally generate personal emotions so as to portray their characters' emotions more realistically. There are two kinds of emotional abilities that can help creative thinking: using emotions to help thinking and emotion regulation.

These abilities can be used not only by individuals but also in interpersonal communication. For example, when managing teams, leaders can intentionally choose to share positive emotions to promote a passion for working or to stimulate creativity. In general, by using emotion to support thinking, people are able to recognize their emotional states more easily and decide which tasks should be done during a particular state.

Creative achievement in many areas, from literature, painting, and music to technology, is filled with emotions, both positive and negative. Being able to reach a goal by changing or controlling emotions and emotional reactions is what we call emotion regulation (Gross 1998, 2008). In order for people to maintain a constructive state in their work, emotions should be managed and regulated very well. Regulating emotions can make a difference in the creative process. Emotion regulation can influence emotions outside the creative process, and also allow people to manage the fundamental emotions needed for creativity. The emotions people experience can influence their thinking and behaviour; this kind of influence can be seen in personal, family, and work contexts (Van Dyne, Jehn, and Cummings 2002).

The first person to talk about the way that regulating overwhelming emotions can lead to creativity was Freud (1958, 1925). He believed that the process of sublimation was the basis of artistic and other creation, where inappropriate impulses or emotions are expressed by art or other acceptable

behaviours. Regulating emotions can be helpful in becoming more creative, especially the regulation of certain negative emotions: boredom, for example, because it is not possible for people to be in a creative state when they are bored (Nakamura and Csikszentmihalyi 2002). However, according to some research, not all people are able to deal with their boredom; dealing with boredom successfully is usually achieved by pursuing something new and novel (Hamilton, Haier, and Buchssbaum 1984). Furthermore, people who do not have emotional awareness are more likely to be affected by boredom.

The ability to regulate emotion is crucial for handling emotions during the process of creation; for example, the potential feelings one is faced with concerning difficulties or successes. According to research on creative mortification, if someone cannot effectively manage his or her emotions, it may have terrible consequences. For example, if an individual gets some negative feedback during the creative process, it is likely that the associated strong self-conscious emotions will lead to a loss of motivation to take part in other creative activities (Beghetto 2014). Moreover, being able to regulate emotion is fundamental in handling the social aspects of creativity well; for example, when making a presentation to a large audience, an individual can use emotion regulation to help deal with the fear of presenting on stage.

Interestingly, research evidence from Bledow, Rosing, and Frese (2013) showed that a change in emotions – for example, from a declining or negative mood to a rising or positive mood – predicts creativity, and this kind of emotional shift is more fundamental to creativity than the mere presence of a positive or negative mood. How can this kind of shift have an influence on creativity? As we have seen before, both negative and positive moods are connected with particular thinking abilities. The negative mood is associated with critical and evaluative thinking, which contributes to finding problems (Foo, Uy, and Baron 2009; Gasper 2003; Martin et al. 1993). A positive mood, on the other hand, can improve originality and flexibility in cognition, which helps to produce creative ideas (Bass 2008). Apparently, the shift from a negative to a positive mood makes it possible to use abilities from the two

different mood states. Therefore, if an individual with good emotional regulation ability changes his or her mood status from negative to positive, he or she can combine knowledge about the problems in a project with novel and original ideas, leading to new and creative solutions.

On the relationship between emotion and creativity, two possible directions may be considered for the future exploration. One is the emerging technologies that can let us know more details about the creative process; the other is to establish the interaction between emotion abilities and emotional states and traits (Ivcevic and Hoffmann 2017). The traditional experimental study on emotion in the creative process can control the emotions people experience when performing tasks during the experiment, but the problem is we cannot know what is happening in their creative process. However, emerging technologies may provide us with one way to solve this problem. For example, the wristband sensors used in physiological studies can successfully provide us with a continuous assessment of electrodermal activity (Poh, Swenson, and Picard 2009), which can be used in the study of creativity. In addition, capturing facial expressions could be another way to learn more about emotions during the creative process. Several software packages can be used for this purpose; the software uses cameras to capture the person's facial expressions when he or she is doing the creative tasks. This technology has already been successfully used in experiments, so it could also be used in emotion-creativity research to explore the relation of emotion and creativity in greater detail.

Another future direction for exploring the relationship between emotion and creativity could be to examine emotional abilities such as those I have mentioned in this chapter (emotional regulation and using emotion to help with thinking). But here the emotional abilities we are talking about relate to what people do with their emotions and their individual differences in using emotional states. This approach is based on an assumption that people can change their emotions and use their emotions as motivation to achieve a goal. Emotions can work as inspiration in this process; Kinney and Richards (2014)

claim that complex emotions and unusual ideas can be used as inspiration or serve as triggers for greater introspection. However, the ability to regulate emotions is necessary for unusual emotions to yield creative achievement.

3.2.3 Emotional Creativity in different contexts

Emotional creativity is regarded differently in the areas of psychology and sociology. In psychology, the concept of emotional creativity encourages us to think that our emotions keep developing throughout our whole life, rather than being something completed at a very early stage of life (Averill 1984). In sociology, however, emotional creativity provides one explanation for cultural differences in emotions: the social norms cannot help to regulate all of the emotional syndromes, and certain emotional moments, like improvisational emotions, are totally dependent on individuals and specific situations. Improvisational emotions gradually accumulate and then spread out to the whole society; the result of the process is to make one culture different from another. In return, different cultures can exert different influences on the emotional life of individuals with different social systems of behaviour and implicit theories that can regulate emotions (Averill, Chon and Hahn, 2001). Sundararajan and Averill (2007) claim that effectiveness, novelty, and authenticity could be criteria for emotional creativity, and they think authenticity is more emphasized in Eastern culture, whereas Western culture puts more emphasis on novelty.

The dimensions of differentiation and involvement can be used to show the difference in emotional creativity in different cultures. Eastern societies are usually seen as a representation of collectivism, whereas the culture of Western societies is usually defined as individualistic (Triandis 1995). Therefore, Eastern cultures often show high involvement and low differentiation, but Western cultures tend to show high differentiation and low involvement. People in different cultures generally have different emotional lives, since social systems can influence emotional traits, and the implicit

beliefs or rules in society can influence people's emotional syndromes and emotional expression.

Li (1997) has talked about the cultural differences in artistic creativity, and he made the distinction between two traditions: the horizontal, which typifies the Western culture, and the vertical, which typifies the Eastern culture. In the horizontal tradition, artistic works aim to make modifications or even radical changes, whereas in the vertical tradition – Chinese painting is a good example – the artists try to capture the 'spirit' of the object but not make radical changes. The concept of creativity in Western culture emphasizes novelty. This point was argued very strongly by Kaufmann (1993); he claims that a truly creative response should involve a 'modification or rejection of previously accepted ideas' (146), but not blindly pursing differences from the old.

Examining Eastern culture, Averill, Chon, and Hann (2001) claim that the Confucian concept of creativity does not emphasize novelty as much as the Western concept does. They present one passage from the *Analects* of Confucius as an example: 'The Master said, Warming up the old so as to understand the new: such a one can be a teacher' (Brooks and Brooks 1998, 111). According to this quotation, it seems that Confucius did not modify the old, but just tried to renew the old. Is it true that the Confucian concept of creativity de-emphasizes novelty? We can perhaps look at this question from another perspective; for example, the definitions and different kinds of creativity. One of the most influential discussions on creativity is from Boden (2004), who distinguished two different kinds of creativity: psychological and historical creativity. She claims that psychological creativity can be new only to the agents; so, according to Boden, even if there is no fundamental modification to old ideas, as long as there is something new for the agent, then it can be described as creativity. In addition, as discussed earlier, Scaltsas (2016) in his brain-mining theory claims that we search our mind for old solutions to new problems and think creatively to redefine the new

problem and transform it. In effect, the 'old' can be a kind of resource for the 'new' and inspire the desired creativity.

3.3 Conclusion

Scholars have been paying more attention to individual creativity in modern times, since people's knowledge on creativity has already undergone a process of demystification, and people's creative initiative has been acknowledged for a long time. Lateral thinking creativity and emotional creativity are two representatives among modern creativity theories.

In this chapter, I have looked into lateral thinking and creativity, including what is lateral thinking and the difference of it between the conventional thinking way, and how can lateral thinking techniques can stimulate creativity. Among the lateral thinking techniques that can promote creativity, emotion also plays an important role. Then I explored the relation of emotion and creativity, including the influence of emotion on creativity, emotion abilities that can help creative thinking, and emotional creativity in different cultural contexts, which illustrates individual creativity could have different features in different cultural contexts.

Chapter 4 Natural Creativity—— Creativity in Daoism

After the examination of the divinely inspired creativity and individual creativity in the West, now I am going to turn to the creativity in the East, starting from the creativity in Daoism. I will argue that the creativity in Daoism is natural creativity, and my exploration will be based on the classical books of Daoism, *Yijing* and *Daodejing*. I will argue the creativity in Daoism is self-creativity, which does not have an outside divine creative entity, but has a dynamic creative process with everlasting changes and transformation inside.

4.1 Creativity in *Yijing*

The earliest work on the thought of creativity is in the *Yijing* which is also called *Book of Changes*; it suggests that everything originates from the interaction of *yin* and *yang*, which was interpreted as *dao* in later commentaries of *Yijing*. The relationship between *yin* and *yang* and *dao* and how *dao* initiates everything can be seen from *Ten Commentaries* on the *Book of Changes* (Chan 1967):

The successive movement of yin and yang constitute of *dao*.

What issues from *dao* is good, and that which realizes it is the individual nature . . . .

Its (yin-yang's) virtue is abundant because it renovates things every day.

Changes mean production and reproduction.

We can see clearly from those passages that the endless movement of *yin* and *yang* which represents *dao* brings everything into being.

4.1.1 The Book of Changes-Yijing

The *Yijing* is one of the classics in Chinese philosophy, and it dates back to the Zhou dynasty, 1200BC. We conventionally think that there are two parts in *Yijing*, the text which consists of hexagrams and statements for hexagrams, and the commentaries. One of the most famous and general acknowledged commentaries is thought from Confucius.

Although we do not have complete information regarding how *Yijing* was formed, it seems certain that this book is based on the prolonged observations of continuous changes in nature and aims to provide human guidance for proper judgment and conduct. From *Xici,* we know that Fu Xi observed the heavens and earth and 'began to invent the eight *Gua* (trigrams), so that we may reach and understand the powers of the divinity, and classify-record the facts of the ten thousand things'(Cheng, 2003).

Therefore, the whole system of trigrams was invented on purpose and based on the observations of nature in order to help people understand the cosmic nature and the myriad things. The eight trigrams system was then made into the sixty-four hexagrams system by King Wen. This expansion is made to represent all basic human situations, and then explain the situations of change with different judgments, which are statements based on the nature of situations represented by hexagrams. Through the hexagrams and judgments, people can predict the future, of which the basis is history and understanding of the cosmos. Thus, the comprehensive observations of a holistic nature, including heaven, earth and man, could be referred to when people are trying to resolve practical problems. Therefore, we can say that the *Yijing* is not just a text of judgments concerning natural cosmic view but also one containing a system of human understanding of nature, which makes the *Yijing* both theoretically and practically oriented.

The fundamental understanding of nature and human beings represents the beginning of Chinese philosophy; thus, the *Yijing* can be taken as the primary source for later Chinese philosophy, for example, the Daoist and Confucian philosophy.

4.1.2 Yin and Yang

Yijing is characterised by a variety of contrasting images; one of the most fundamental of these is *yin* and *yang*. Originally, the basic meaning of *yin* and *yang* indicates the light and dark sides of a mountain. In terms of their etymology, *yin* and *yang* mean shadows and lights respectively, and they are elemental experience of human beings in nature. 'But this elemental experience contains the patterns of change and transformation from opposition to supplementation to mutual transformation. They are not separable but rather form a unity of opposing forces and moments as we watch how sunlight gives rise to the darkness of night that in turn eventually gives rise to broad daylight' (Cheng 2009). Elements which are unfathomable in the operation of *yin* and *yang* is called spirit (Chan 1967, 20). From this

passage, we can see that the movement of *yin* and *yang* is endless, and the movement produces everything. The creative movement of *yin-yang* is an organic and dynamic system, and *yin-yang*, two opposites of *dao*, mutually change from one to the other. *Yin* and *yang* are always in mutual interactive movement, and when one of them exhausts, it will fade into the other. Everything was created in the process of mutual interaction.

Cheng (2008) claims that there are five basic epistemological principles underlying the creative and dynamic *yin-yang* system:

(i)   Principle of Comprehensive Observation, which ensures openness and continuity of observation from both a minute and holistic perspective;

(ii)   Principle of Systematic (or Organic) Consistency and Simplicity, which requires that the whole system of observations be organised in coherent experiences and concepts of mutual support;

(iii)   Principle of Polar Opposition and Complementation, which shows how creativity of production and individuation of things occur;

(iv)   Principle of Creative Enfolding and Development, which allows and invites new experiences of nature and reality in a growing and expanding process of life realization;

(v)   Principle of Understanding in Human Consciousness and Its Creative Self-Regulation, which points to the emergence of human consciousness and its inherent power of creative decision and action based on understanding of nature."

From these five principles, we can see how *yin* and *yang* interact and the process of creativity occurs, and human's creative self-regulation is based on the understanding of nature, which provides us with a methodological understanding of *yin* and *yang*.

4.1.3 Natural creativity in *Yijing*

In contrast to ancient Greek tradition, in East Asian tradition, there is no external divine agency or final substance to control the changes. Everything is in a process of self-creativity, and this kind of creativity is not from actions of divine agent or ultimate principle, but is a continuous self-realisation of the particularities.

In the *Commentaries*, creativity is taken as begetter of begetting and change, 'As begetter of all begetting, it is called change' (*Yijing*, Great Treatise 2/5). In Chinese tradition, the nature of things is ever-changing, which can be seen from'*Dao* of the change is forever changing-alteration, movement without rest, flowing through the six empty places; rising and sinking without fixed law, firm and yielding transform each other. They cannot be confined within a rule; it is only change that is at work here' (*Yijing*, Great Treatise 2/8).

How do things change and transform in the *Yijing*? We can find the answer from the following passage:'Events with certain tendencies gather according to class, and things divided up according to group. In this way, good fortune and bad fortune come about. In heavens, this process creates images, whilst on earth it creates physical form; this is how change and transformation manifest themselves' (*Yijing,*, Great Treatise 1/1). The process of classifying and grouping on earth creates physical forms of myriad things; however, what we should note is that the process in *Yijing* is not an ascending ladder with linear direction; rather it moves in a horizontal way with contrasting forces:

The Change is a book from which one may not held aloof. Its *Dao* is forever changing-alternation, movement without rest, flowing through the six empty places, rising and sinking without fixed law, the firm and the soft transform each other. They cannot be confined as a rule; it is only change that is at work here (*Yijing*, Great Treatise 2/13).

There is not any fixed law or rule in the changing movement, so the process of self-realization is unpredictable. In addition, there is no external source to drive the mutual transformation of *yin* and *yang* and the change between them is intrinsic. Due to the creative process of *yin* and *yang*, there are increasingly more particular entities emerging, and we can refer to *Yijing* for this process 'The reciprocal process of *yin* and *yang* is called *Dao*… It possesses everything in complete abundance: It is a great field of action. It renews everything daily: this is its glorious power.' (*Yijing*, Great Treatise 1/5)

In the *Yijing*, all things are self-creative, and the main concern of the *Yijing* is to establish harmonies among individual things. The myriad things change and transform without any teleological aim since they proliferate in an open way. Novel activities emerge in an unpredicted way, 'It possess everything in complete abundance: This is its great field of action. It renews everything daily: This is its glorious power. As begetter of all begetting, it is called change' (*Yijing*, Great Treatise 1/5). However, the movement of particularities can lead to opposition. For example, in the hexagram Opposition, "Fire moves upward, the lake moves downward. The two daughters live together, but their minds are not directed to common concerns."(*Yijing*, Hexagram Opposition, Commentary on the Decision). Although the movement in this hexagram is opposite, the judgement of this hexagram is good fortune. This is because in the *Yijing*, the pre-condition for the creative process is difference. "Heaven and earth are opposite, man and woman are opposite, all beings stand in opposition, they are concerted, strive for union, seek an order."(*Yijing,* Hexagram Opposition). What we can see from this hexagram is, on the one hand there is opposition between particularities, one the other hand they are looking for harmony and unity, so there is a creative transformation from opposition to fellowship inside. We can also see this point from the hexagram The Creative:

Being accord with heaven and earth, there is caused a mutuality of similar resemblance with no opposition. This knowledge encompasses all things under the heaven. Purposively without trespass circumspect action does not drift. Joy in heaven is understanding its commands; thus, there is no anxiety. Peace on earth, generous in benevolence, gives the ability to love. The sphere of the heaven and earth transforms but does not transgress. A lyrical completion of all things with no exceptions. To penetrate the *dao* of the day and night is to know. Thus, the numinous is not bound to any place and creativity is not bound by form."(*Yijing*, Great Treatise 1/4)

For myriad things, there is no hierarchical order, and through creative activities, ten thousand things form multi-level networks and try to achieve great harmony, which we can see from the hexagram of "The Creative":

Great The Creative! The originator! All things obtain their initiations from it. It unites and commands all things under heaven. The way of Creative is to change and transform so that everything will obtain its correct nature and conditions and the great harmony will be self-proficient. The result will be the advantage and firmness towers above the myriad things and all states enjoy peace (*Yijing*, Hexagram The Creative).

This creative transformation indicates emergence of the novelty, unpredictable events and becoming of things.

The *yin* and *yang* principles do not only indicate the movement of nature, but also cover principles of virtues. For example, in the *Yizhuan* (Shuogua, second section 2 from Chung-ying Cheng 2009), we read:

In antiquity the sage created the book of symbols of change for the purpose of conforming to the principles and reasons of nature and necessity. Therefore he established the principle of yin and yang for heaven, established the principle of soft and hard for earth, established the principle of benevolence and righteousness for man.

From this passage, we clearly see that there are principles of *yin* and *yang* for heaven, and there are corresponding principles of benevolence and righteousness for human beings. This means principles of *yin* and *yang* also have the function of norms or standards. The natural principles of change can be used as norms of change in moral activities of human domain.

Cheng (2008) claims that *Yijing* has initiated an onto-cosmology model, and there is an ultimate origin for all changes. In the whole onto-cosmological system of *yin-yang*, *yang* works as the principle of power and creativity, while *yin* works as the principle of receptivity and preservation. Under this system, the principle of benevolence has the quality of *yang* and correspondingly acts as the principle of creativity; meanwhile, the principle of righteousness becomes a principle of preservation. This origin is called *"taiji",* which is the

great ultimate source and manifests itself in *yin* and *yang*. Although *yin* and *yang* refer to different sources of power, they also belong to each other and form a unity. Therefore, the root source of being is a matter of unity, duality and eventually diversity. The universe forms the source-reality by itself and there is no external limitation or inexhaustible inner force for the ultimate source which is the creative power. Thus, there is no boundary for the ultimate source: 'Changes has no body and creativity has no direction' (*Yijing*, hexagram 40). Human being's creativity is rooted in cosmic creativity, and the most significant feature of the ultimate source is that the human being is creative. Therefore, individuals can cultivate themselves into moral persons with the paradigm of onto-cosmological creativity.

The creativity of the human being is one essential element in the constant changes of *Yijing*, and by discovering what change is and participating in the creative movements of heaven and earth, human beings can become creative. It suggests to us to explore in things in order to form purposive activities, so that we may integrate with the great way of the world. Thus the sage uses his knowledge of the change to comprehend the feelings and desires of the people under heaven and to achieve the great deeds under heaven and to dissolve the great doubts under heaven: By using the knowledge of change and comprehending the creativity of heaven and earth, a person can become creative and we call this person the sage (*Xici Shang*, chapter 11.62).

The *dao* of heaven and earth preserves forever and never come to stop. It would be fitting should one set out to do something here, for when something sends, there is always another beginning. The sun and moon have found their place in heaven and shines forever. The four seasons change one into other and so can occur forever. The sage is forever with the course of *dao* and so brings about the consummation of the entire world (*Yijing*, Hexagram Duration).

In the process of creating, each entity has its own uniqueness and they are not under control of universal rules. The daoist sage is always following the *dao* to become one part of creativity of heaven and earth, which is shown in *Yijing*:

As (a sage) resembles heaven and earth, he is not go against them. As his knowledge is complete in respect to myriad things and his dao brings help to all under heaven, he commits no transgression. Such a one extends himself in all directions but yet does not allow himself to be swept away. He rejoices in heaven and understands its decrees, he will be free of anxiety. As he is content with the circumstances and is genuine about his kindness, therefore he can be loving. He perfectly emulates the transformation of heaven and earth, so does not transgress them. He follows them without omission. He has thorough grasp of dao of the day and night and so is knowing. Thus the divine is not restricted to place, and change is without substance (*Yijing*, Great Treatise 1/4)

Is there any practical way to make us innovative and creative? Through comprehensive observation, a state of reflective tranquillity between the world and the mind could be achieved, which could make people innovative and creative. 'It is looking over all things in nature and the world in an extensive and comprehensive way that allows us to see things as a whole and belonging to a whole'(Cheng 2009). Through comprehensive observation, we see things in a whole and also change in a changing environment in the way of interaction between *yin* and *yang*. The *yin* and *yang* are two opposite sides, but there is also unity in their interaction, which shows unlimited possibilities. The comprehensive observation manifests an approach of taking natural cosmology as a unity of being and becoming, and human beings as a unity of the inner and outer. Human beings are able to invent tools, institutional practices and even a whole civilisation by comprehensively observing the nature, which manifests that human's creative activities are based on understanding of nature through comprehensive observation. This is an interactive process between human beings and the world, since when

we are observing the changes of the world, we are also inventing and doing creative activities.

The comprehensive observation reveals the principle of *yin-yang* alternation, which can be taken as a principle of creative co-creativity since the *yin-yang* model does not only govern both heaven and earth, but also the creation of all things. *Yin* and *yang* are both distinct from each other and also related with each other in terms of bright-dark and moving-rest. The principle of *yin-yang* polarity can be found in the first two hexagrams of *Yijing*. However, *yin* and *yang* are not the ultimate source of all changes, since *yin* and *yang* are generated by *Taiji*, and the concept of *Taiji* is based on the changes observed by the sages. *Taiji* is the ultimate principle of creativity since it underlies the creative principle of the *yin-yang*. Additionally, the sage becomes creative and perceptive because of the principle of *Taiji*, since it is foundational for sages to understand the wishes of people and make plans for the development of human civilization. From this perspective, *Taiji* is also the *dao*, and it is penetrated into everything.

Taiji is a creative force which is continuous and also sustains the creative process of all things. We can see this character of continuing creativity from these following statements:

The creativity of creativity is called change (*Xici Shang* 5)

Qian and Kun, are they the nexus of the change? When the qian and kun are ordered, there is the ultimate and whole creativity. If qian-kun are destroyed, there is nothing to present the ultimate and whole creativity. If the ultimate and the whole creativity cannot be seen, the qian and kun would be extinguished (*Xici Shang* 12)

The *taiji*, as the ultimate and whole creativity, is taken as the ultimate foundation of the changes of things in the world.

In Daoist literatures, the Daoist hermits are often taken as those who are away from the crowd and not interested in changes in human society; thus,

some scholars have even concluded that ancient Chinese society is static. However, the *Yijing* consists of emphasis on alternation, and we can see this point from the following passage:'When one change had run its course, they altered. Through their alternation, they achieved continuity. Through continuity, they achieve duration' (*Yijing*, Great Treatise 2/2). In this passage, alternation indicates that the fundamental transformation occurs in the process of change, and it cannot be predicted by *yin* and *yang*. This alternation includes images of abundance, creative creativity, and emergency of novelty.

4.2 Creativity in *Daodejing*

The thought in Daoism and Confucianism is closely related to the *Yijing*. In Daoism, the *dao* also has a creative function and represents the way of change and transformation of things. In Daoism, the classic book is *Daodejing*, from which we can also see there is similar dialectics of development of *Yijing*. As to the relation between *yin-yang* and *dao*, we can see it from the *Yizhuan*:'Conjunction and alteration of *yin* and *yang* is called the *dao*'. The *dao* indicates how things are formed and transformed, which means the movement of *dao* contributes to the changes of things. The movement of *dao* in terms of the interactions of *yin* and *yang* is the essence of change. However, there are also distinguished differences between them, since there are no hexagrams or images in *Daodejing*, and Daoism put more emphasis on how things arise by the action of the *dao.*

4.2.1 The text of *Daodejing*

When doing research on *Daodejing* or Lao-Zi, there are some arguments on the authorship and dating, and we have no conclusive answers to these questions yet, although there are some speculation and hypotheses. Since this is not the most important issue in this chapter, I will not put too much attention on this point here. The following discussion on creativity will be based on the text of *Daodejing*.

4.2.2 The Concept of *Dao*

Dao is the key concept in the *Daodejing*, and it is usually described as invisible, mysterious, and infinite, etc. Many scholars, such as Chen Guying, T'ang Chun-I and Chen Chung-hwan, have had discussion on the meaning of Dao, although different understandings and interpretations will never come to an end, we can still learn a lot from their work.The concept of *dao* in Laozi refers to something independent from all of the objects in our phenomenal world, and it also indicates that this concept is presupposed, but it cannot be defined clearly by language or knowledge since there is always regressive use of language in presupposition to refer to its own presupposition. Laozi claims that the *dao* which can be spoken is not constant. What we must know about *dao* is that the word *dao* is a metaphor, which indicates the way of how this world is to be constituted. In Laozi's philosophy, the *dao* is known as the ultimate reality.

In Laozi's philosophy, the *dao* is an independent entity, and also is inherent in the nature of things. In Chapter 25 of *Daodejing*, we can see:

There is something formed chaotically; it is created before heaven and earth. It is all alone by itself, and standing by itself and without change, but it circulates in motion and without ceaselessness. It can be considered as the mother of all things." The *dao* is not only an origin of all things, it also has a function-use in producing the inexhaustible world. This function-use can be found in the artefact we make, such as the carts, house vessels and wheels (*Daodejing* chapter 11).

All things are produced from the *dao*, and they will eventually return to the *dao* which is their roots. In Chapter 40, 51 and 52 of *Daodejing*, we can see this constant feature of the *dao*.

As an ultimate reality, the *dao* is not only an origin and root, but also it is a creative process, in which the *dao* can still maintain its independence and the generation, transformation and return of things are all parts of this process. What we should note here is, as the source of reality, the *dao* cannot be exhausted by the things produced by it, so it is not limited by its creative

performance. Therefore, we should take the *dao* as both transcendent and immanent, as both originating and supporting, in this sense, the *dao* is the genuine creativity.

As I have shown above, the *dao* has many different dimensions, thus a single dimensional interpretation of the *dao* is not enough to cover the creative meaning of the *dao* in *Daodejing*. We should not ignore the fact that the *dao* is also closely related to human beings, even though the *dao*, as the creative source of heaven and earth, and it seems more distant than heaven and earth in relation to the human beings. However, the *dao* in fact has its way in the transformation of things; thus, the *dao* seems to be closer than the heaven to the human beings.

Chen Chung-hwan claims that there are three static and three dynamic senses in the *dao*. On the static side, the *dao* is the ultimate source which produces the myriad things, the store-house and the ultimate model of ten thousand things; in the dynamic sense, the *dao* is the agent of phenomena and the fundamental principle under which ten thousand things are produced and sustained, and it is also something active. All in all, Chen claims that the *dao* is a unique and universal binding principle (Chen 1964). The *dao* also has a normative character, since it is the principle of human actions ought to conform. Chen concludes that *dao* is both axiomatic principle and ontic principle (Chen 1964). Chen thinks the *dao*'s function has both spheres of *ought to be* and *is*, which seems to be a functional dual interpretation. Another representative scholar, Mou Tsung-san, gave us a unique explanation. He thinks that Dao is not the objective origin of the universe, but is a subjective vision which is a kind of empty mind of practical subjectivity (Mou1985) Mou takes Dao as a concept of "metaphysics in the line of vision", but not "metaphysics in the line of being", and he looks into the ontic world from the perspective of "practical mind-vision".

Besides the interpretation based on the text of *Daodejing*, Charles Fu provides a more complicated explanation since he combines linguistic and

philosophical theories, and compares Laozi with some western philosophers, such as Spinoza, Heidegger. He claims that Laozi 'creates a naturalist metaphysics of *dao* sub specie aeternitatis' (Fu 1973). From his argument, we can clearly see the comparison he made:

As in the case of Spinoza, Laozi's metaphysical attention is essentially focused on Nature as such or (the totality of) things-as-they-are, without positing or speculating upon what possibly exists behind or beyond Nature. Unlike Spinoza, however, Laozi's metaphysics of *dao* is not merely non-dualistic, it is also non-conceptual: It is not structured in any kind of conceptual or propositional framework such as has characterized the Western philosophical tradition since Parmenides and Plato. For *dao* is not an entity, substance, God, abstract notion, Hegelian Weltgeist, or anything hypostatized or conceptualized. Dao is, if you like, no more than a metaphysical symbol Laozi uses to denote, without any distortion, Nature itself in terms of the spontaneous self-so-ness (zi-ran) of the world and man' (Fu 1973)

Fu made insightful and creative comparison between Laozi and Western philosophers, which as a result makes his interpretation more modern than historical and textual. Additionally, there are some other interpretations regarding *dao*; for example, Graham (1987, 219) claims that *dao* is "the source of all things", Hansen (1992, 13) thinks that *dao* is "a metaphysical monistic absolute—the Chinese equivalent of Parmeniedean being", and Ivanhoe (2002, xxii) also made a good summary of *dao*:"The *dao* is the source, sustenance, and ideal pattern for all things in the world. It is hidden and difficult to grasp but not metaphysically transcendent. In the apt metaphor of the text, it is the "root" of all things".

In summary, *dao* is the unification of infinite possibility and multiplicities. *Dao* has penetrated into manifold diversities of existence. Chuang Tzu says:"If we see things from the point of view of their differences, then even our inner organs are as far apart as the states of Ch'u and Yueh. But if we see things from the point of view of their identity, then all things are one" (Ch.II).

4.2.3 Creativity in *Daodejing*

We can find ample support for the original text of *Daodejing* for the argument of *dao* as the source of all things. One of the most well-known chapters in *Daodejing* is Chapter 42:'*Dao* produced the One, the One produced the two, the two produced the three, and the three produced the ten thousand things.' Laozi tried to describe the process of creativity with numbers, but what we should notice is that the numbers he used are not in the conventional meaning.

Dao, as the mother of all things, cannot be seen or explained, but all the other things are produced through its manifestations. Although there are many different kinds of interpretations or readings for the meaning of "produce" in this passage, we all agree that this shows a process of creation and evolution, since this chapter clearly made a hypothesis about how the *dao* brings about ten thousand things. As to the concept of the One, Two and Three, there are many arguments and discussions about them, but here, it is beyond the focus of this chapter. We do not need to identify the specific meaning of the One, Two and Three, and we can just take them as tokens of ten thousand things, so that it will be easier to accommodate different theories. The creativity in *Daodejing* is a dynamic process of transforming one to myriad things, and unity to multiplicity.

4.2.3.1 One and many, unity and multiplicity

One way to understand the creativity in Daoism is to see the unity in multiplicity. However, we have to note that the unity does not stay static; rather, it is both static and dynamic, since on the one hand it is changeless, on the other hand there are changes in it. Like the unity being within the multiplicity, we need to know the changeless is within the ever-changing as well. In order to understand the process of creativity, we have to know the dialectic relationship between the concepts of the changeless and the ever-changing.

In chapter 42 of *Daodejing*, we can see those numbers of one, two and three, which manifest changes, but within them we can also see the changeless, which is the *dao*. As Chuang Tzu says:

The existence of things is like a galloping horse. With every motion it changes. Every second it is transformed (Ch.17)

Ten thousand things are inherent in the germ, but they undergo changes from one form to another. Their beginning and end are like a circle, no part of which is the same as any other part (Ch.27).

Ten thousand things indicate changes, and the germ is the changeless, and there would be no manifestation if there is no changeless. We can see creativity from the changeless to the ever-lasting change, and from unity to multiplicity.

Dao is the great mother, and it is free from limitations of time and space, for example, in the *Daodejing*, Laozi says:'Obtaining the One, Heaven was made clear. Obtaining the One, Earth was made stable. Obtaining the One, the Gods were made spiritual. Obtaining the One, the valley was made full. Obtaining the One, all things lived and grew'(Ch.41). It is clear to see that in Laozi, the One created all things in the world and it is the source of creativity. What is the One? It is the *dao*, which penetrates into infinite diversities; therefore, in each particularity we can see the potentiality of Dao, the unity. (Chang 1963)

For understanding the ever-changing changeless and the relation of multiplicity and unity, Laozi inspired us in Chapter XVI: All things are together in action, but I look into their non-action, for all things are continuously moving, restless, yet each is proceeding back to its origin. Proceeding back to the origin means quiescence. Quiescence means being-for-itself. Being-for-itself means the ever-changing changeless. The way to understand the ever-changing changeless is to be enlightened. Changes represent a process of accumulating things, whereas the changeless is a symbol of complete oneness and there is no differentiation of parts and

whole within it. From changeless to change is a process of self-generation and creativity. In Chuang Tzu, the sage can not only contemplate diversities, but also interfuses himself with the complete oneness, therefore he owns a synthesized view on particularities and oneness. Just as Chuang Tzu said:"The Sages contemplate ten thousand years and conceive them as a pure complete oneness" (Ch.2).

The creative movement from the dao is functioning in a returning pattern, which means all movement will return to their original state. Due to the continuous movement of creating and returning, the constant determinacy and indeterminacy forms there (*Daodejing*, chapter 1), and Laozi claims that the indeterminacy is the origin of determinacy (*Daodejing*, chapter 40). The creativity of *yin* and *yang* in *Daodejing* is consistent with the *yin-yang* creation in *Yijing* since they both claim that experience and the world are mutually creative and this creative process is unceasing.

As the source of myriad creatures, *dao* also sustains everything by associating with virtue (*de*). Virtue indicates the function and principle of *dao* in individual things, and we can see how this works in Chapter 51:

Dao produces [10,000 things], and de rears them. Things take shape, and vessels are formed. This is why the ten-thousand things all revere *Dao* and honour *de*(virtue). *Dao* is revered and honoured not because they are bestowed with nobility but because this is an ongoing and natural thing to do. *Dao* produces and rears them, brings them up and accomplishes them, brings them to fruition and maturity, feeds and shelters them. It produces them without claiming to possess them; it benefits them yet exacts no gratitude for this; it is the steward yet exercises no authority over them. Such is called *xuan-de* (profound and secret virtue).

The profound virtue is a characteristic of *dao*, and it also makes the *dao* related with the human world, since the sage in the human world embodies this kind of profound virtue and practices the principles of *dao*.

4.2.3.2 The creative approach---*wu-wei*

In *Daodejing*, the ultimate human goal is to actualise the *dao*, which is a cosmic force to drive everything in the universe to exist and develop. This process of creation and transformation is everlasting and constant.

In Laozi's view, the way of human creativity functioning is the way of the *dao* making. The *dao* is self-creating, and the world is in the making, but the way of the world functioning is indetermined, which means no one can determine how it works.

The agent of creativity is sage, but how does the sage achieve the principle of *dao*? Laozi gave a principled approach, *wu-wei*, which is often translated as "non-action" and is the ideal practice the sage uses to take care of the people and the world. However, this translation is not precise enough to express the true meaning of *wu-wei*, so there are some other translations, for example, Slingerland (2003) described it as "effortless action", Zhu (2002,53) mentioned that the interpretations for *wu-wei* include "never overdoing", "no conscious effort", "no set purpose", and "utilitarian principle that serves the social purpose of winning the world".

In Laozi's thought, *wu-wei* has a specific agent, and most frequently the sage is taken as its agent, for example, in Chapter 2, we can see:'Thus, the sage abides in the business of non-action and practices the teaching that is without words", and in Chapter 57:'The sage says, I conduct non-action and the people transform themselves". In some other chapters, although there is no direct discussion on the sage's non-action, we can still infer that the sage is the agent of non-action. For example, "That is why I know the benefit to taking non-action, the teaching that is without words…" (*Daodejing* Chapter 43), "teaching without words" in this chapter is obviously the same with Chapter 2, so the one who knows the benefit of non-action is also the sage.

Wu-we, on the one hand, indicates how to behave for sages, on the other hand it refers to the state of mind, as Pu(1994) has claimed that *wu-wei* denotes 'not a basic form of action but the mental state of the actor—— the

spiritual state that obtains at the very moment of action'. Therefore, *wu-wei* involves two different components, the cognitive component which represents the rejection of conventional knowledge and values, and the behavioural component which consists of refraining from the conventional action (Slingerland 2000).

With the principle of *wu-wei* in mind, the creative agent, sages, usually go away from the crowd to foster creativity, but we should note that going away from the crowd does not mean going against the crowd. Feist (1999, 162) said:'to be creative requires solitude—the capacity to be alone'. The choice of keeping away from the crowd could be made voluntarily or involuntarily, since for some it is individual decisions, but for some others, it could be compelled to do so under the pressure of circumstances. One of the most wildly acknowledged reason for the choice is to be true for oneself. As Hall (1978, 273) has said:'Creativity, as the spontaneous realization of novelty, requires that there be freedom to produce the novel…the locus of freedom is the self'. This kind of freedom in Daoism is from within, and the hermit philosophers disconnect themselves from social communications and bonding, which displays unconventional emotions from the Confucian philosophers who try to integrate into society.

Since nature is self-generating, so there is not a causal account for natural creativity, and self-reflexivity is taken as a key to creativity (Sundararajan 2015). According to David Hall (1978):'A self-creative event is the efficient cause of itself', the principle of self-reflexivity is in nature. The self-reflexivity principle claims that the creative individuals are the product of creativity, which has broken down the dichotomy between the creator and the created product (Sundararajan & Averill, 2007). In Chinese conception of creativity, the measure of creativity is the self-transformation of the creative individuals (Hsu, 1966).

The creativity in Daoism is self-realized, and it is a kind of inner reality, which means it is an inside process and does not need outside stimulation. It does

not depend on external divine being, or substance, or abstract principle. Chuang Tzu claimed on this:

those who rely upon the arc, the line, compasses, and the square to make correct forms injure the natural construction of things. Those who use cords to bind and glue to piece together interfere with the natural character of things… there is an ultimate reality in things. Things in their ultimate reality are curved without the help of arcs, straight without lines, round without compasses, and rectangular without right angles… in this manner all things create themselves from their own inward reflection and none can tell how they come to do so (Ch.8).

We cannot see *dao* itself, and what we see or grasp are just the manifestation of *dao* through reflection. Just as Laozi said:" *Dao* never acts, yet through it nothing is undone. … All things create themselves" (Ch.47). The creativity of *dao* is self-creativity, which is manifested in its spontaneous reflection. Whitehead once provided an explanation regarding this kind of self-creativity in Western terms: 'Creativity is without a character of its own… It is the ultimate notion of the highest generality at the base of actuality. It cannot be characterized because all characters are more special than itself. But creativity is always found under conditions and described as conditioned.' We cannot see the creativity of *Dao* directly, but we can see it in its manifestations, which are conditioned. 'Changes take place by themselves, without movement; things reveal themselves, without display.' Thus, self-creativity of *dao* is very different from the ancient Western creativity inspired by the divine power of muse.

Although the *dao* is creative, it is not possessive. The *dao* is an independent origin-source for the world, but not separable. In Chapter 34 of *Daodejing*, we can see:"

The great *dao* flows pervasively and it reaches from left to right. All things depend on it for life and it will not decline any support for them. When it succeeds in doing its work, it does not claim possession. It clothes and nourishes all things without being their master; being free of desire, it rests being named small. But in light of fact that all things return to it, it can be

named great. But finally it does not regard itself as great, therefore it achieves its greatness. "

In addition, in Chapter 51,we read:'the *dao* procreates, the *de* nourishes, makes grow and cherishes, completes and sustains, covers and protects. It creates without possessing, supports without claiming, makes growing without mastering, this is called profound virtue (*xuande*)'. The *dao* is creative and produces a world of diversity, and also makes them function in a comprehensive harmony. The *dao* has virtues, and actions from those virtues are natural to the *dao.* Thus, the creativity of the *dao* is ceaseless, immanent and also non-possessive.

4.3 Conclusion

Compared with western tradition of creativity inspired by divine being, I would like to call the creativity in Chinese philosophy natural creativity. Although these two traditions seem very different from each other, they have one common feature. They both have an external source outside human beings in creativity. According to the traditional Western view on creativity, humans do not have the ability to create, and they just convey or imitate divine beings' thought; therefore, human beings are just representative of divine being. Similarly, in Chinese philosophy, the movement of outside dynamic source, *yin* and *yang*, created everything, and later in Confucianism, they believe self-cultivation can lead people to connect with this high level of creativity.

However, the differences between ancient Western and Chinese concepts of creativity are also distinctive. Although both Western and Chinese views on creativity have an external source, for Westerners, there was personalised Muse or God and they made everything into existence, whereas in the view of the ancient Chinese, there is no personalised Muse or God and the continuous movement of *dao* created everything, and the movement power seems to be from within. Second, in Western tradition, people tend to believe that everything was created from nothing, since everything was created by

God from nothing and this also exerts profound influence on modern Western concept of creativity, for example, radical changes, and novelty. On the contrary, there is no clear clue for the beginning of the universe or *dao* in Chinese tradition, and it is the everlasting changes of *dao* that bring everything into existences. The western tradition has more emphasis on the transcendent side of the ultimate reality, namely the God, whereas, the Daoist and Confucian tradition emphasize more on the immanent side of the ultimate reality, for example the *dao*, which is also manifested in transformation of things and the self-cultivation of human beings.

Different from the Western divinely inspired root in ancient Greek philosophy, the Chinese concept of creativity originates from the everlasting changes of nature—the *Dao* or *yin-yang* (Berthrong, 1998; Hang, 1986; Niu, 2001) According to psychology research, one of the most important features of revolutionary creativity is to go against the crowd (Sternberg, 2006). However, in the harmony model of Chinese philosophy, for example, the creative individuals go away from the crowd but not going against them. The Chinese model of creativity is not divine so much as natural.

Chapter 5 Moral Creativity in Confucianism

The thought of Confucianism has a close relationship with the *Yijing,* since Confucius studies the *Yijing* from an early age; thus, he had a deep understanding of the system of *Yi*, and many of his remarks manifest the connection with the philosophy of the *Yijing.* Much thought from Confucius could be traced back to the *Yi* tradition. For example, Confucius took the generation and transformation of things as a creative process from the heaven, and he also thinks self-control is necessary for the development of virtues which should be taken as a life-long pursuit for harmonious relations. However, Confucianism has its own distinctive characteristics, and its conception of creativity put more accent on the social and moral aspects,

which opens new dimensions for the research on creativity.

In this chapter, I will firstly explore the current views on Asian creativity based on Confucian culture, and then based on the classis of Confucianism----*Analects*, which records Confucius' words and conduct of and his followers, I will explore the conception of creativity in Confucianism, including the creative activities from Confucius himself, the agent of creativity, and the principle of being creative, and argue that Confucius himself does not oppose creativity, but rather actually he advocated evolutionary creativity based on the wisdom of tradition from the moral and social perspective. Finally, I will make a summary of the characteristics of Confucian creativity, and I will conclude that unlike the revolutionary creativity in the West, the creativity in Confucianism is evolutionary, and it emphasizes more on moral and social aspects of creativity, which shows new and different perspectives of creativity research compared with the West.

5.1 Current views on Eastern creativity

Although there is an increasing emphasis on creativity in Asian societies, many scholars believe that Asian cultures are not suitable for developing creativity or amenable to develop creativity (Elliot, 1971; Kim, 2009; Koh, 2000; Leung and Morris, 2010; Lubart, 1999; Morris and Leung, 2010; Ng, 2001, 2003, 2004; Raina, 1999; Simonton & Ting, 2010; Westwood & Low, 2003). For example, Niu (2013) claims that individuals in Confucian societies are more likely close-minded and introverted, and resultantly these traits are 'negatively associated with creative personalities' and 'prohibitive to the development of individual creativity'. Kharkhurin (2014) concludes that a 'Western, culture-specific definition of creativity' is privileged after reviewing literature and research on creativity. Consequently, there is limited research on non-western understandings of creativity, especially from a Chinese philosophical perspective.

Based on the research of creativity in western context, there are different kinds of creativity, for example, Boden (2001) claims that there are personal creativity, and historical creativity. Personal creativity points to what is new to the person concerned, and it is the product of a mindful choice (Kaufman and Beghetto, 2009). Kaufmann (2004) claims that personal creativity is 'an idea (that) deserves to be described as original if it is novel for the individual who produces it, without necessarily being novel for something as a whole'. Niu and Sternberg (2002) argued that compared with the concept of creativity in Western culture which places more emphasis on individual characteristics, the novelty in Eastern culture is often connected with the old and the moral and social values. Besides, research has shown that the concept of creativity in Western society is concerned with radical changes and more revolutionary, whereas in Eastern society the concept is concerned with incremental changes and more evolutionary (Niu and Sternberg, 2006; Tan 2016). Runco and Nemiro (2003) addressed a difficulty in the definition of creativity: Moral conventions define what appropriate behaviour, for example, is and most definitions of creativity mention some sort of appropriateness (e.g., fit, social value, adequacy) in addition to originality or novelty (Runco and Charles, 1993). The difficulty arises because creative solutions to moral problems may be viewed as inappropriate by some standards or criteria.

Besides different types of creativity, another category that we should not ignore is context. Beghetto and Kaufman (2014) claimed that creativity can also be influenced by specific social and cultural contexts. The understanding of creativity can be different in different cultures, as well as similarities. Generally speaking, both the concepts of creativity in East and West emphasise aspects such as novelty, originality and usefulness. However, when we make a deeper examination, there is difference between Eastern and Western creativity. Niu and Sternberg (2002, 281) claim that 'Asians hold a somewhat different view of creativity than do Westerners', as a result, 'using the same set of tests to compare Eastern and Western creativity may not be appropriate'. Based on the current views and research difficulty, I will

examine the creativity in Confucianism, which is one of the most influential school in China even East Asia. Firstly, I will explore the creative activities of Confucius himself.

5.2 The creative activities of Confucius

Confucius did not directly discuss novelty, but it is implied in his philosophy. It is generally known that Confucius emphasised a lot on tradition, and proposed that we should learn from tradition. Resultantly, there is no sharp break between the "new" and the "old" in Confucianism, and we can take the "new" as the extension of tradition. In *Analects*, on knowledge, Confucius said: 'if one is able to acquire new knowledge by reviewing old knowledge, he is qualified to be a teacher (Cai 2006,19). Obviously, one way to gain newness provided by Confucius here is to review the old.

In addition, Confucius advocated the preservation of the tradition, which can be seen from his claim that 'transmits but does not make; trusts in and loves antiquity' (*Analects* 7.1). Confucius claims that the virtues and ritual rules in Zhou dynasty are those that we should still learn from and follow, and he takes Zhou dynasty as "the highest excellence of all" (8.20 see also 17.5). Confucius claims that we should preserve and follow the tradition of the Zhou dynasty, it does not mean Confucius was just transmitting the tradition, on the contrary, Confucius believed that appropriate changes should be made when it is necessary. Although radical changes are not advocated, it is still reasonable to think that novelty is a feature in Confucianism, even though it is connected with the past and tradition. I will show the Confucian creativity from creative activities of Confucius, the agent of creativity, and the principle of creativity.

5.2.1 Creative education approach of Confucius

Confucius himself is not only a great philosopher, but also a good teacher with creative teaching approaches in his time, and his thought on teaching

has profound influence for centuries. Confucius customised his teaching for different disciples, which nowadays we call a student-centred approach. He never delivers long lectures on one subject; instead, he asks questions and encourages students to find the right answers themselves. 'Only for one deeply frustrated over what he does not know will I provide a start; only for one struggling to form his thoughts into words will I provide a beginning. But if I hold up one corner and he cannot respond with the other three I will not repeat myself' (*Analects* 7.8). Confucius intentionally cultivates students' contemplation and critical thinking by posing questions for them and expecting students to achieve their own judgments and answers. In this process, reflection and learning are closely connected, just as he says 'Learning without reflection leads to bewilderment; reflection without learning leads to perilousness' (*Analects* 2.15). Confucius emphasizes a lot on questioning and also expects his disciples to question him, for example, he notes how 'I can talk all day long with Yan Hui without him once disagreeing with me. In this way, he seems a bit stupid' (*Analects* 2.9; Slingerland, 2003). Besides, Confucius is open to fresh ideas, which is demonstrated in how he learns from people around and chooses what to follow. Confucian creativity is situational, since there is flexible responses to changing situations.

In addition to the creative teaching approaches, he also broke the restricted education rules in his time by rejecting the traditional practice of restricting education to aristocrats. He thinks everyone can accept education regardless of one's social status, which in that time was bold action for mass education in ancient China. With the belief that human beings are similar in their nature from the very beginning, but gradually differ because of their practice, therefore, Confucius claims that everyone could become an exemplary person, *junzi*, as long as he can make effort on moral self-cultivation. From his perspective, moral self-cultivation is a creative process with self-directed learning, authentic moral motivation, and self-actualization, during which individuals can examine, reflect and shape the meaning of one's life experiences (Tan 2012). The entire process of self-cultivation is a life-long

work, for which individuals need to observe *li*, love learning, learn extensively, and integrate the old and the new creatively (*Analects* 1.1). As to the relation between concepts of creativity and self-cultivation, Hall and Ames (1998) claimed that creativity is a notion that can only be characterized in terms of self-cultivation and articulation.… Creativity requires that each participant in a relationship be continually in the process of creating the other. Community thus defined through the creativity of its members is programmatic—a goal that is constantly pursued rather than an immediate reality or fixed ideal.

5.2.2 Moral creativity in Confucianism

The philosophy of Confucianism is human-focused, which means its concept of creativity is also human-focused. Confucius thinks that human beings are able to establish and develop the world, and human creativity is involved within the creation of the world. For example, Confucius claims: 'It is the human being who is able to extend the *dao*, not the *dao* that is able to extend the human being' (*Analects* 2006,190). Human beings can create and develop *dao* and many other new things; however, we should note that it does not mean human beings are the masters of the world. In fact, human creativity is based on the interaction between human and the outside environment, and the interaction contributes to create new things. During the process of creativity, human is the agent, and has the ability to create with the principle of creativity: *dao*. For example, Mou (2003) said:'What is *dao*? The principle of creativity is *dao*. You need to let the principle of creativity unfold in your life. That is to keep your life strongly advancing and keep creativity all the time'. In this human-focused philosophy, the exemplary person, *junzi,* is the agent of creativity.

5.2.2.1 The agent of creativity ----*Junzi*

In his time, Confucius tried to reinterpret traditional customs and practices through his teachings, thus Confucius himself also demonstrates creativity by actively reflecting on sociocultural situations of his time. Confucius

envisioned a society of *junzi* who acts with the principle of Yi and aims to "broaden the Way (*dao*)" (15.29). The ideal image of *junzi* in Confucius is creative, and *junzi* is an intellectual who criticizes the main problems of his society (Ahn 2008). Confucian creativity emphasizes the intention of creative agent in the creative process. An ideal creative agent for Confucius should be an exemplary individual, and have good impact to his or her surroundings.

Junzi, originally refers to the son of a lord and it was the ideal image of a man in ancient China. *Junzi* was living according to the principle of military skills and virtues, and was taken as someone usually pursing power and strength (Brooks and Brooks, 1998). *Junzi* is an important term in Confucius and mentioned over 100 times in the *Analects*. In Confucius, *junzi* is a moral example and everyone can become a *junzi* through moral self-cultivation and everyone should aim to become a *junzi* (Tan 2013). *Junzi* should study and establish his own character in the creative process through self-cultivation and self-creation by self-reflection and comparison with the moral, social and aesthetic canons of tradition in the past, especially in Zhou dynasty.

However, Confucius creatively transformed the image of *junzi* from a power-oriented man into a morality-oriented man. For example, in the *Analects*: Zilu said, 'Does the gentleman consider courage to be supreme? The Master said, 'For the gentleman it is morality that is considered supreme. Possessed of courage but devoid of morality, a gentleman will make trouble while a small man will be a brigand.' (Book 17:23). What we can see from the above is that Confucius put accent on the moral component of *junzi*, and *junzi* should be recognized by his morality rather than his strength (Sungmoon 2009). *Junzi* was reinvented as a benevolent person by Confucius creatively when Confucius was advocating *ren* (benevolence) and *li* (rituals) of Zhou dynasty.

In Confucius' philosophy, *junzi*, as a moral example, embodies creativity in several ways. Firstly, a *junzi* can act creatively within his sociocultural context with the principle of *Yi (appropriateness)*, with which the *junzi* can think and do what is appropriate. Confucius confirmed this distinguishing feature of

junzi: 'The *junzi*, in one's dealings in the world, is not for or against anything; such a person goes with what is *yi*' (*Analects* 4.10). Singerland (2001) regards *junzi* as "situation-centered", and claims that "[t]his sort of situation-centered reasoning resembles Aristotelian phronesis, and ultimately "what is right" in the ethical realm corresponds to what the gentleman (that is, the good person) [*junzi*] would do'. Acting with *yi* shows the combination of a subjective self-knowledge of the Way and an objective assessment of a situation in order to make an appropriate judgment (Cheng,1972). Therefore, a *junzi* demonstrates creativity by being "proper but not inflexible" (*Analects* 15.37), and *yi* also shows the agent's significance through his flexibility interacting with changing situation (Hall & Ames, 1987). In Confucius' philosophy, the *junzi* is talented and imaginative enough to finish works and achieve goals by responding creatively to a range of situations. Another Confucian virtue is involved in this process, that is *shu* (empathy and reciprocity). *Shu* is the creative search for the most appropriate response in one's conduct and moral judgments (Ames 2011).

Junzi is a person who has a moral duty to broaden the way, achieve benevolence and social harmony. A *junzi* is one who is 'anxious about the Way' (15.32) and 'learns in order to reach that Way' (19.7). Ames and Rosemont (1998) claim that to "broaden the way" is 'to experience, to interpret, and to influence the world in such a way as to reinforce and extend the way of life inherited from one's cultural predecessors'. The way is not predetermined or fixed; rather, it needs human beings to move the world forward through their collective actions (Li, 2006). *Junzi* does not do creative acts in a random way; rather, they have a moral duty and tries to achieve benevolence and harmony in his society. The practice is to 'love others' (*Analects* 12.22) and to 'cultivate oneself in order to bring peace to the multitude' (*Analects* 14.42). The moral goodness of a *junzi* is related to others, which places emphasis on social and collective harmony as a whole and demonstrates the social component of creativity. However, it does not

mean personal qualities; for example, individual independence and assertiveness are not valued in Confucianism.

Junzi demonstrates his creativity in an intermediate way with the principle of *yi*, which means the creative process in *junzi* is progressive and incremental. In this sense, compared with the radical changes, there are more alternations or reinterpretation of existing conventions or practices in Confucian creativity. What we should also notice is that Confucius himself did not just totally copy and follow Zhou's tradition, rather, he advocated a flexible selection of exemplary practices from past dynasties in order to govern the state in an effective way: Follow the calendar of the Xia, ride on the carriage of the Yin, wear the ceremonial cap of the Zhou, and as for music, play the shao and wu. Abandon the tunes of Zheng and keep glib people at a distance. The tunes of Zheng are lewd and glib people are dangerous (*Analects* 15.11). Although Confucius made a "selective traditionalism" and it is conservative, which elements should be chosen to conserve or reinterpret is always a novel project (Hagen 2010, 9). The agent of creativity, *junzi*, can appropriate relevant wisdom of past and extend them to his own time (Hall and Ames,1987). Hall and Ames (1987) described Confucian creativity as evolutionary rather than revolutionary:

The dominance of tradition as the source of practical and affective norms leads to a restriction of the novel contributions of persons as individuals who would break the continuities of the past and establish new directions in thought or institutional practice. . . . In Chinese philosophy, the mark of excellence is found in the manner in which the wisdom of the originating thinkers of the past is appropriated and made relevant by extension to one's own place and time.

In Confucian philosophy, the concept of *li*, which is often translated as "ritual", "propriety" or "ritual propriety" is a central concept. The range of *li* is very broad, since it does not only include mundane forms of social rules and interpersonal etiquette, but also include guidance for ceremonies, such as

funerals, marriage and mourning rites. Consequently, *junzi* does not perform creative activities randomly, rather they act under the guidance of *li*. Confucius did not copy the traditional customs, but rather he re-interpreted *li* for his own time. Ames and Rosemont (1998) took this as a creative personalization, which means individuals need to appropriate, adapt and apply traditional customs and practices to their own times and situations.

Confucius is a master who reveres the past as a model for his own time, aiming to solve those problems they were facing with past traditions. As he say, 'Both keeping past teachings alive and understanding the present— someone able to do this is worthy of being a teacher' (*Analects* 2.11; Slingerland 11). In the past teachings, *li* is also a significant part and is essential for self-cultivation, for example, he claims "restraining yourself and returning to the rites (*li*) constitutes Goodness". However, it does not mean we should simply follow the past *li* without any changes, on the contrary, Confucius notes many times that in order to suit their contemporary situation, it is necessary to alter *li*. For example, he says:

A ceremonial cap made of linen is prescribed by the rites, but these days people use silk. This is frugal, and I follow the majority. To bow before ascending the stairs is what is prescribed by the rites, but these days people bow after ascending. This is arrogant, and – though it goes against the majority – I continue to bow before ascending (*Analects* 9.3 87).

Designing or adapting past customs and existing practices for contemporary circumstances is crucial for the concept of creativity from the sense of change or newness. As Lai (1995) claimed that *li* 'can be modified and, indeed, are varied and variable and manifest differently as they pertain to each different situation and to each particular relationship, although they may provide general guidelines for each kind of relationship'. *Li* is not a rigid set of rules which must be complied; rather, it encompasses creative personalization. As Ames and Rosemont (1998) claim, *li* are 'those meaning-invested roles, relationships, and institutions which facilitate communication,

and which foster a sense of community" and "requires the personalization of prevailing customs, institutions, and values'.

5.2.2.2 The principle of creativity—yi

Apart from the emphasis on the novelty in the definition of creativity, many scholars suggest appropriateness (*yi*) is also another feature of creativity (Bierly, Kolodinsky and Charette, 2009; Gino and Ariely, 2012). *Yi* in Confucian creativity means appropriateness, and it provides guidance to individuals to act creatively in specific situations and changes. In Confucianism, *yi* also means "intentional creativity" since Confucian philosophers assume that people and environments interact with each other. In Confucian philosophy, a person interacts with situational changes, and responds to them. Therefore, creativity is based on the understanding of situations.

According to the principle of *yi*, individuals should perform in a proper way which is most suitable for a particular situation. The Confucian notion of creativity places emphasis on the "dynamic, interpretive process of constructing personal knowledge and understanding within a particular sociocultural context" (Kaufman and Beghetto, 2009, 3). The standard for appropriate conduct is not determined by the authority or social traditional custom, rather it is based on *li* with the goal of extending *Dao*.

The Confucian concept of *yi* (appropriateness) indicates "an acquired sense of what is most fitting in the situation", which is one of the features of Confucian creativity (Ames, 2011, 201). *Yi*, is also a distinctive mark of *junzi*. As Confucius said, "Exemplary persons, in making their way in the world, are neither bent on nor against anything; rather, they go with what is appropriate (*yi*)" (Analects 4.10) Hall and Ames (1984.) claim that *yi* acts are "creative actions" as they "realize novel patterns uniquely suited to each concrete circumstance". Niu (2013) thinks that the significance of *yi* "comes from proper creative responses to situational changes, which means that

intentions are properly timed and responsive to emerging circumstances".
Runco (1996) claims that creative individuals know the kind of information
that can be used and "will transform information and thus exercise control
over their experiences". *Yi* is circumstantial since the focus is on specific and
particular rather than universal problems and solutions. Put it in another way,
yi gives concrete forms to the universal principles of Confucianism through
specific events and actions (Tu, 1989). *Yi* demonstrates the specific
responses from noble persons who do not stick to traditional customs blindly
and alternatively have their own judgments based on their internal moral
principles (Slingerland, 2003).

For Confucius, *yi* is 'To fail to speak with someone who can be engaged is to
let that person go to waste; to speak with someone who cannot be engaged
is to waste your words. The wise do not let people go to waste, but they do
not waste their words either' (*Analects* 15.8). From his words, we can see
that a creative person guided by *yi* actively and effectively interact with others
according to the specific situation, and there is no specific formula on how
one should interact with another person, which means *yi* actions surpass
standard answers or technical knowledge based on purposeful deliberations.
Slingerland (2003) claims 'The words one are to speak cannot be determined
ahead of time; one must speak in accordance with the situation'. The skilful
ambassador who exercises one's initiative when communicating with
different abroad is a good example (*Analects* 13.5). The principle of *yi*
reminds us that we should not blindly comply with traditional customs and
practices, and should re-think about any strict "presuppositions as to what
may and may not be done" (*Analects*18.8).

The *yi* actions indicate the flexibility in creative actions and also the virtue of
discretion which shows "a kind of cognitive flexibility that allows one to
amend or bend the rules in response to changing or unique circumstances"
(Slingerland 2003). For Confucius, it is necessary to comply with discretion
but not to hold to extremes. As what he says in *Analects* (19.11) "In matters
which demand surpassing excellence, one never oversteps the mark; in

minor affairs one has some latitude", which means individuals should be open-minded and act with surpassing excellence.

The agent's ability to display appropriateness is another aspect of Confucian creativity. Ames (2011) claims that the creative agent can display *yi* both synchronically and diachronically; additionally, it also illustrates the differences between synchronic and diachronic actions: *yi* as an "optimising appropriateness" locates present action both synchronically and diachronically. Synchronically *yi* action attempts to extend the context as broadly as possible, attending to the full range of possibilities involved, and taking under consideration the sometimes competing yet legitimate interests of all concerned. Diachronically *yi* action in the present moment locates the immediate circumstances within the continuities it has with both past and future activity, making a comprehensive consideration of the continuing present the best way to make full use of those resources inherited out of past experience and the most productive way of anticipating what is yet to come.

We can also understand synchronically *yi* actions in terms of "outer" and "inner" appropriateness. Yu (2006) argues that outer appropriateness emphasizes what is fitting and is an attribute of ethical action, whereas inner appropriateness is showed in the intellectual quality of an agent through doing what is necessary. Yu (2006) emphasises that out and inner appropriateness are inseparable because one's intellectual quality of appropriateness can help tell person to reach what is appropriate in action. In terms of the diachronically *yi* action, it exemplifies the Confucian notion of *dao* (way). In Analects, Dao has multiple meanings, such as principles and truth. Generally speaking, *dao* indicates "the way of life inherited from one's cultural predecessors" (Ames and Rosemont 1998, 45) and the guidance for all (Hansen, 1989). Confucius claims that exemplary persons "make their plan around the way (*dao*)" and "are anxious about the way" (*Analects* 15.32). Human is the agency to broaden *dao*, as Confucius claims "It is the person who is able to broaden the way, not the way that broadens the person" (*Analects* 15.29).

Confucius claims that humane people are those who "establish others in seeking to establish themselves and promote others in seeking to get there themselves" (*Analects* 6.30). Ames (2011) holds that *yi* is about "following one's sense of what is right in being responsive to the concerns of others"(p.202) Confucius's treatment of a blind musician shows the instance of synchronically and diachronically *yi*: The blind Master of Music, Mian, had an interview with Confucius, and, on reading the steps, the Master said, "Here are the steps," and on reaching the mat, the Master said, "Here is the mat." When they had all sat down together, the Master informed him of who was present: 'So-and-so is here, and so-and-so is there.' When Master of Music Mian had departed, Zizhang asked Confucius:'Is this the way (*dao*) that one should speak with a blind music master?'. Confucius replied, "Indeed, this has been the traditional way of assisting a music master" (*Analects*, 15.42). Slingerland (2003) comments that Confucius "puts aside the normal ritual behaviour of a host in order to deftly and respectfully serve as a guide for the blind Music Master, without being overly fussy or condescending". Confucius's conduct and intention are synchronic because he conscientiously provides what the blind musician needs and meanwhile, when Confucius continues the tradition *dao* of receiving a blind music master, the diachronic action is manifested. What is more, Confucius also set a good example for Zizhang how to response appropriately in such a situation. (Tan, 2019)

To summarise, in the context of creativity, Confucian appropriateness, the *yi*, realises and performs what is most fitting in a particular situation. *Yi* offers the socio-cultural framework for individuals to act creatively in specific situations, and the Confucian creativity emphasizes the 'dynamic, interpretive process of constructing personal knowledge and understanding within a particular sociocultural context' (Kaufman and Beghetto, 2009, 3). How can individuals know whether their responses are appropriate? According to Confucian worldview, the standard for appropriate conduct is *li* with the purpose of extending *dao*, rather than complying with the communal rituals

and value blindly. The Confucian approach to creativity has its uniqueness, which is its combination of creativity and appropriateness. From the Confucian perspective, creativity without appropriateness is dangerous and useless, because the creative thought may not be suitable for the specific situation.

5.3 The uniqueness of Confucian creativity

From the analysis above, we can see that in Confucian philosophy, the concept of creativity has its own unique characteristics. Firstly, it emphasises human beings as the creative agents who have creative ability to create the society. Second, the society is a network, and human beings are closely connected. Individuals need to learn from others and interact with others or environment properly to build up good characters, also they should allow themselves to be changes by the environment so that to fully understand other things and the world, in this way they can achieve creativity. We can call this kind of creativity as co-creativity or contextual creativity. Third, novelty, as one of the most important feature for creativity, is closely related to the past and tradition in Confucianism and can be seen through re-interpreting traditional customs and practices; this therefore means that we can take the Confucian creativity as evolutionary, rather the Western revolutionary concept. The last but not the least, Confucius put much accent on the principle of appropriateness, which means human beings should work in an appropriate way with the context, under the guidance of ritual propriety. Therefore, we can see, in Confucian philosophy, that there is a principle for how to be creative or behave in a creative process. Although human beings are creative agents, it does not mean make use of their creative ability in a random and go astray as a result, so proper principles for creative agents and appropriateness through flexible interaction with individuals and specific circumstances are necessary.

In the East Asian context, there is a necessary link between creativity and ethics (Kaufman and Beghetto, 2009). Since the moral significance of

creativity is highly emphasised, so the Confucian concept of creativity and morality are closely related and all of the creative actions are aimed at broadening *dao* with *li,* the rituals, which are "life forms transmitted from generation to generation as repositories of meaning" and also make human beings internalize shared values (Ames and Rosemont 1998, 51).

The accent on morality in Confucian concept of creativity requires us to place more attention on the moral basis of creativity. With the context of 21st century focusing on technology and science and the international trend on the utility function of creativity, the moral aspect of creativity is neglected which is equally significant for the progress of all human beings. When we are enjoying the utility of creativity, we should never forget the morality in it; for example, Kharkhurin (2014) contends that goodness should always be included in creative activities. Especially when research has shown there is potential unethical consequences of creative activities (Gino and Ariely, 2012) Therefore, some scholars put accent on the moral significance in creativity, for example, Haste (1993) concludes that creative individuals should be aware of the moral seriousness besides their responsibility and efficacy, and Gruber (1993) also asserts that "a betterment of all" should be the goal of human's creative acts.

The concept of creativity demonstrated in Confucian philosophy is a moral and social one, with emphasis on evolutionary changes rather than revolutionary changes. The examination of the process of self-cultivation and his teaching showed that the incremental changes are based on traditional wisdom; therefore, a clean break from tradition was not favoured by Confucius. Since *li* are central concepts in Confucian philosophy, so individuals should think, feel and act with principles of *li*, and moral self-cultivation can only be successful in a social connected network with active interaction between people and environment, so the concept of creativity is necessarily moral and social in this sense. Therefore, some scholars describe Confucius as a "conservative innovator" (Tan, 2014).

Confucianism emphasises social relations, not only relations of individual, but also the relationship between individuals and society; therefore, human beings live in a world of social relations. Fingarette (1983) said:'For Confucius, unless there are at least two human beings, there can be no human beings.' This clearly shows that the Confucian world is a closely related society, and based on this close relation principle, being responsive and interactive to the environment or others is important for being creative. Ames and Hall (2001) claim this kind of creativity as co-creativity: "Creativity is always reflexive and is exercised over and with respect to 'self.' Additionally, as self in a progressive world is always communal, creativity is contextual, transactional, and multidimensional. Thus, creativity is both self-creativity and co-creativity. Similarly, Wen (2009) argues that this kind of creativity is contextual creativity:

The meaning of contextual creativity thus starts from the reflexivity of purpose as a correlative relationship between people and their environments. From this co-creative worldview, the world comes to us as an actualisation of contextual purposes and intentions, and we foster the growth of meaning from an under-determinate state to a determinate one. Therefore, the contextual creativity of people in the world is a process of commanding meaning and facilitating the emergence of significance.

From a Confucian standpoint, the whole of society is a closely related network, so besides the moral significance of creativity, the Confucian creativity also contains interpersonal aspect of creativity, which means the cultivation and even establishment of self are related to others. For example, in *Analects* (6.30) "the man of perfect virtue, wishing to be established himself, seeks also to establish others; wishing to be enlarged himself, he seeks also to enlarge others", a noble man should help others when establishing or enlarging himself or herself. Similarly, a person needs to work with others to in creative activities, and under this context, personal creativity are more meaningful when working with social creativity. The moral aspect of Confucian concept of creativity remind us that some further research on

ethical basis and interpersonal component of creativity in different cultural contexts could be done to broaden the research range of creativity, for example, besides the individual creativity, moral obligations and influences of human relations on creativity can be discussed more. Additionally, for researchers, it requires that they should not merely use the positivist paradigms to measure individual creative outcomes, rather they should take more inclusive ways to observe and interpret creativity in mutual interactions (Glaveanu, 2015).

The Confucian concept of creativity demonstrates the situatedness of creativity. Kaufman and Beghetto (2009.) pointed out the important role of culture in influencing creative activities and products. Moran and John-Steiner (2003) stress the "internalisation or appropriateness of cultural tools and social interaction . . . not just copying but rather a transformation or reorganisation of incoming information and mental structures based on the individual's characteristics and existing knowledge" (Kaufman and Beghetto, 2009). McLaren (1993) claims that creativity cannot be fully understood "apart from its socio-moral context and intent". Fox (1997) maintains that creative thought would be "an impossibility" without the linguistic and societal structures and norms in a cultural context.

However, I should note here that Confucian morality is not limited to ethical good or right, but rather it has a broader meaning and is also concerned with psychology, spiritual and metaphysical significance (Ames and Rosemont 1998). Creative persons have mixed characteristics, and could be both rebellions and conservative, with a willingness to break traditions while preserving past wisdoms from their culture (Csikszentmihalyi, 1996). Therefore, we can conclude that Confucian creativity in an Eastern context values evolutionary changes with moral and social dimensions and we should be cautious when examining and interpreting creativity in relation to Western standards in non-Western contexts.

5.4 Conclusion

The Confucian concept of creativity has its own distinctive characteristics in two ways. The first is the concept of creativity in Confucianism puts more stress on moral and interpersonal dimensions, which is an extension of current research on individual creativity. The second is Confucian creativity holds the principle of appropriateness and its personal creativity is "manifested in the intentions and motivation to transform the objective world into original interpretations, coupled with the ability to decide when this is useful and when it is not" (Runco, 2004). This transcends a narrow focus on novelty. Compared with the concept of creativity only focusing on creative products or acts, Confucian creativity has a broader consideration since the cultivation of creativity agents, social relationships and moral issues are also included.

Since moral and social dimensions are added to the understanding of creativity in the Confucian concept of creativity, rather than only focusing on individual dimension, so the Confucian interpretation of creativity goes beyond the traditional conception of creativity which highlights individual achievements, and is featured by moral and social consideration. This kind of approach to creativity is not only about subjective and individual novelty, and creative acts also indicate individuals' ethical cultivation, and contribution to social harmony. Glaveanu (2014) thinks that this approach shifts the individual and genius paradigm to We-paradigm which stresses social and interpersonal cooperation. Similarly, Tan (2019) claims that Confucian creativity is both "self-regarding" and "other-regarding", which makes Confucian creativity very different from the international trend on technical rationality and utilitarian function of creativity. Glaveanu (2015) contends that: Against "centric" models that reduce creativity to intra-psychological variables (e.g., divergent thinking, openness to experience, neurological correlates), the notion of distribution makes it a fundamentally relational and developmental phenomenon. The creative process cannot be represented by the almost instantaneous, mental, and individual moment of "getting the creative idea," but necessarily engages self—other, symbolic—material, and

past—present—future relations that turn it into a social, embodied, and temporal act. However, the Confucian conception of creativity is also consistent with personal creativity which is "manifested in the intentions and motivation to transform the objective world into original interpretations, coupled with the ability to decide when this is useful and when it is not" (Runco, 1996, 2004). In the context of East Asia, there is a necessary link between creativity and ethics (Kaufman and Beghetto, 2009; Rudowicz and Yue, 2000; Tan, 2016). Niu and Sternberg (2002) claim that compared with creative endeavours disturbing harmony of the society, making contributions to the society is much more acceptable and valuable.

In summary, Confucian conception of creativity combines novelty and appropriateness, and its approach to creativity broaden our views on creativity by stressing the moral and interpersonal factors of creativity, which also inspire us to explore the ethical and social dimensions of creativity in different contexts.

Conclusion: Comparison between Eastern and Western creativity

Ames (1989) claims that there are traditionally two different orders in philosophy; these are the logical order and the aesthetic order. The aesthetic order can be seen from *Yijing*, which has a dynamic and open process. The logical order is manifested in the Western philosophy tradition with the aim of

finding the universal principles or nature of things, which can be seen from Plato and Aristotle. The aesthetic order is represented by Chinese philosophy where particular things and the environment interact and have mutual impact on each. Specifically, the logical order stresses the priority of unity to plurality, whereas the aesthetic order emphasises the plurality prior to unity. On particularities, particular is taken as a substitution in logical order and particularity can be reduced to universality; by contrast, the particular uniqueness is thought to be more important than the universal principles. Another difference can be seen from the view of rightness, rightness has its moral and social meaning in aesthetic order, however, in logical order, rightness is more related with conformity to the predesigned pattern. As I showed in the previous chapters, the creation source in Plato is in fact from the work of divine being and the raphasode is merely conveying the muses' words, and it is the same with craftsmen who is pursuing to achieve the pre-existed ideal form in their works, which is a manifestation of the logical order in Western tradition.

Although there are different definitions on creativity, one feature of creativity in those definitions is generally agreed by scholars: novelty or newness. However, the concept of creativity in Eastern culture indicates different aspects from the Western and cultural differences can also be seen from the distinction between Eastern and Western concepts of creativity.

The first and foremost difference is concerned with the nature of creativity, whether creativity is revolutionary or evolutionary. Some scholars believe that western culture generally emphasises revolutionary creativity, whereas eastern culture values the evolutionary creativity (Carlile and Jordan, 2012; Kozbelt, 2010). Carlile and Jordan (2012) note that 'traditionally western cultures value groundbreaking or 'Big C' creativity, which alters existing paradigms and is attached to eminent individuals' (p. 68). Western culture usually relates creativity with 'radical novelty,' and 'disruptive innovation' (Kaufman and Beghetto, 2009; Lubart, 2010), and the agent of creative activities are usually those who do not conform with conventions and are

willing to challenge traditions.

Compared with Western creativity, Eastern creativity is more likely in the form of evolutionary creativity, since it places more emphasis on incremental originality, progressive adaptation, alternation of existing schemes or practices over time, and a reinterpretation of tradition (Gardner, 1989; Niu and Sternberg, 2002). There is no complete break from tradition or radical novelty in Eastern creativity, Gardner (1989,282) summarised the difference between Western and Chinese creativity:

We may contrast the Western, more "revolutionary" view, with a more "evolutionary" view espoused by the Chinese. There is a virtual reversal of priorities: the young Westerner making her boldest departures first and then gradually reintegrating herself into the tradition; and the young Chinese being almost inseparable from the tradition, but, over time, possibly evolving to a point as deviant as the one initially staked out by the innovative Westerner.

The place of moral and social values in creativity shows another difference in Western and Chinese creativity. Research has shown that in Chinese society, the moral and social dimension of creativity are stressed and it is necessary to promote moral goodness and contribution to the society (Kaufman & Beghetto, 2009; Niu and Sternberg, 2002).The advocacy of maintaining social harmony shows the Eastern society prefers an evolutionary concept of creativity, rather than a revolutionary and radical concept of creativity. As Allinson (1991) has claimed: If man is envisioned as being already in harmony with the cosmos and the world, it is much more likely for a philosophy or philosophies to evolve which point the way to maintaining, enhancing or, if it is lost, recovering that initial harmony with the world. There is absolutely no need, as in the case of Heidegger, for discovering man's nature to be in the world (or remembering this), and announcing this as if it were a great insight.

One of the consequences of addressing social harmony is that some

behaviours that may potentially threaten group harmony could be rejected, 'in a collectivist society; defying the crowd may be seen as less valuable than making contributions to the society and sometimes defying the crowd may even be seen as strange rather than as creative in the East' (Niu and Sternberg 2002, 33)

On the contrary, in western societies, the individual creativity rather than the moral component of creativity is usually highly valued in products or processes of creativity (Carlile and Jordan, 2012) Radical change is more valued in Western societies, whereas intermediate change is more prevalent in an East Asian context (Lubart, 2010), and Confucian creativity is consistent with "mini-creativity"(Kaufman and Beghetto, 2009). However, it does not mean that *yi* is not compatible with other types of creativity, such as radical changes, instead, Confucian creativity expands our view to a broader definition of creativity by drawing our attention to some other factors that could influence creativity, such as the creativity agents, interpersonal relationships, and socio-cultural contexts.

I would like to claim that the Western concept of creativity is more revolutionary, whereas the concept of creativity in Chinese philosophy is more evolutionary. For example, Gardner (1996) claimed: Our Western European culture is based on revolutionary ideas. Certainly, in other cultures, for example, China, revolutionary creativity is not even known. It is only in the political realm, and not until very recently, that individual Chinese are singled out as highly creative individuals. Their breakthroughs are evolutionary rather than revolutionary (p. 143). Within Eastern society, creative changes are more likely to be those which are based on and extended from past traditions, which shows the evolutionary sense of creativity, Averill, Chon and Hahn (2001, 173) claimed that:'the goal is not to modify fundamentally—and certainly not to reject—previous ideas, but to breathe new life into them, in order to make them better fit the circumstances'. On the contrary, the Western creativity places more emphasis on radical and innovative changes, and there is not a strong connection between the new and the old like in the

Eastern. Kharkhurin and Motalleebi (2008) attributed this distinction to cultural difference, they think the relative collectivist culture in East Asian society makes people would like to preserve traditional sociocultural norms, whereas the ideology in Western society is more individualistic and values critical thinking and radical changes more.

Stress on moral self-cultivation in the creative process is one of the characteristics in the Eastern evolutionary creativity. Niu and Sternberg (2003) claim that self-cultivation towards enlightenment indicates the process of individual creativity and this can also explain why moral goodness is taken as an essential element in judging creativity in an Eastern context. Through learning and practicing virtues with lifelong effort, individuals are encouraged to engage in the creative process of self-cultivation and self-transformation (Tu, 1985) These two following passages from the *Analects* indicate the path to self-cultivation:

From the age of fifteen on, I have been intent upon learning; from thirty on, I have established myself; from forty on, I have not been confused; from fifty on, I have known the mandate of Heaven; from sixty on, my ear has been attuned; from seventy on, I have followed my heart's desire without transgressing what is right. (2.4)

The Master's Way is nothing but other-regard and self-reflection. (4.15)

The first passage manifests the long-term scale of process of self-cultivation, which begins in one's teenage, and lasts into old age. This whole process proceeds gradually from learning intention establish oneself, from know the mandate of Heaven to doing what is desired without transgressing.

The meaning of Confucian creativity is broader, since it transcends personal creativity and accents the moral and interpersonal dimensions of creativity. Creative acts are not merely new or original experiences or products to individuals or societies, but also they are closely related to individuals' self-cultivation, and contribution to the harmony of society. It is reasonable to conclude that Confucian creativity is not only self-concerned, but also others-

concerned. The Confucian concept of creativity surpasses the traditional notion of creativity which puts too much stress on creative individuals. Resultantly, this approach shifts the focus from individual-paradigm and genius-paradigm to we-paradigm which emphasises interpersonal cooperation and social changes in creative activities (Glaveanu, 2014) Just as Glaveanu has said: "Against "centric" models that reduce creativity to intra-psychological variables (e.g., divergent thinking, openness to experience, neurological correlates), the notion of distribution makes it a fundamentally relational and developmental phenomenon. The creative process cannot be represented by the almost instantaneous, mental, and individual moment of "getting the creative idea," but necessarily engages self—other, symbolic—material, and past—present—future relations that turn it into a social, embodied, and temporal act (p. 167)."

Confucian interpretation of creativity opens a new dimension regarding the definition of creativity across diverse cultures, and extends research on creativity. Given the accent on moral and social dimensions of Confucian concept of creativity, further research on ethical basis and interpersonal component of creativity in different socio-cultural backgrounds could be taken, and it requires more inclusive ways of observing and interpreting creativity in communal interaction. Confucian interpretation of creativity provides us with an integrative understanding of creativity by synthesizing novelty and appropriateness, and *yi* harmonizes novelty and appropriateness. Actions based on *yi* are both novel and fitting as the agent needs to make proper judgement to each concrete circumstance. According to the Confucian perspective, novelty should go with appropriateness; it is otherwise useless since the new idea may not fit the situation very well. On the other hand, appropriateness without novelty cannot solve new problems.

Different cultural values contribute to the differences between divine and natural origins of creativity in Western and Chinese philosophy. Since the Western and Chinese societies are typical examples of individualist and collectivist societies, and the level of emphasis on the independence of individuals is different. Consequently, the connection between the old and the new in Chinese concept of creativity is closer than it in Western society.

The philosophical origin of creativity in the West and East has exerted profound influence on people's understanding of creativity in each society, and we can see the continuity between ancient and modern concepts of creativity. For example, in the Chinese concept of creativity, it significantly emphasised the moral goodness and contribution to the society as a whole, which made the concept of creativity is closely related to the ethical benefits (Shao Zhang Zhou Gu and Yuan 2019). While in the West, although there is a process of demysterification in people's understanding on creativity, which can be seen from the shift from divinely inspired creativity to individual creativity, the continuity between ancient and modern is the stress on novelty. Although there are huge differences between the ancient views of creativity of the East and West, the contemporary views are mutually affected now; for example, the Chinese concept of creativity now shares the features of novelty and individualism, and the Western research on creativity includes the ethical consideration now (Niu and Sternberg 2002, 2006).

Although different cultures have different views on creativity, they still share some common features; for example, both ancient Greek and Chinese take creativity as everlasting producing and renewing. However, there are some differences as well, for example, compared with the view of creativity in ancient Greek emphasizing the feature of novelty, social values of creativity in Chinese philosophy were stressed more (Niu and Sternberg 2001).

To some extent, people in different cultures and societies share some universal features of creativity, such as novelty, intelligence and independence. However, there are obvious differences in different cultures.

People in Western societies seem to emphasize more on individual characteristics, while people in the East tend to put more stress on the moral and social value of creativity, which could be demonstrated in different worldviews of people in different cultures.

In Chinese culture, group interest seems to gain more accent than it does in the Western. Rudowicz and Yue (2000) claimed that the social role of a person is emphasized more in Chinese collective culture, therefore the social and moral value of creativity to the society is more stressed, whereas the Western individualistic culture seems to value more of personal success as a creator.

In summary, the view on creativity in Chinese philosophy has more emphasizes on social and moral values, and so as the connection between the old and the new. In contrast, special individual characteristics of creative individuals gained more attention in Western concept of creativity.

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