Creativity of Chinese and American Cultures: A Synthetic Analysis

The article integrates the seven papers of the two special issues with a special focus on discussing the differences in people's beliefs about creativity between the Chinese and American cultures: How it is conceived, evaluated, and nurtured. It uses three metaphors to capture major differences in these aspects, and highlights areas with profound cultural variations in conceptions and creative education for future research.

**Keywords:** creativity, Chinese, American, cross-cultural differences, creative education.

Most theories regarding the nature of creativity come from studies in the West, especially from the United States. This special issue focuses on numerous topics that emphasize both comparisons of how Chinese and Americans are alike and different and advances in Chinese creativity research.

Past literature has indicated that there are many communal and universal standards judging creative ideals. Cultural variation may be relatively small and only expressed in certain areas (such as arts) or historical times (Niu & Sternberg, 2002, 2006; Rudowicz, 2003, 2004). We agree with this statement; the core defining features of creativity, novelty, and appropriateness are shared by people across cultures. Such alignment is clearly true of the two cultures that this special issue covers: American and Chinese. The focus of this final paper, however, is the cultural variation that people believe about creativity: How it is conceived, evaluated, and nurtured. We believe that by examining these cultural variations, we can better understand the nature of creativity and translate this added knowledge into more effective approaches for creative education. We will start by using three metaphors to capture some differences between Americans and Chinese as we integrate the seven outstanding contributions to this issue. We will conclude with by highlighting three areas for future work that show important cultural differences in conceptions and creative education, which may direct future research in this area.

**FOOD GRAIN VS. PORK PARFAITS**

First, to the Chinese, creativity is like food grains: vital for survival, attainable by everyone, and able to be expended in different styles in different areas. This
attainable feature of creativity is a common theme shared by almost all papers of this issue. For example, according to Niu (2012), deeply influenced by the Confucian ideology, the Chinese have historically viewed creativity as something that a person can acquire throughout life. In the Chinese common wisdom, an individual does not need to be a genius or possess special abilities to be creative, and creativity can be exhibited in any domain or area, sometimes in a domain that appears to be less prestigious, such as the culinary art. Hu et al. (2013) also elaborated this idea by examining how creativity is nurtured in school. The idea about “learning to think” captures the essence that creativity is something that everyone can acquire through learning. In Peng and Plucker (2012)’s article, this attainable feature is examined at the government policy levels. They asserted that Chinese policymakers and scholars tend to see creativity not as an innate capacity, but rather as a matter of inadequate training and poor motivation; therefore they tend to take a more progressive attitude than many of their Western counterparts to address these problems. Yi, Hu, Plucker, and McWilliams (2013) clearly stated that the school’s organizational climate can significantly influence the development of children’s creativity. They suggested more programs should be targeted at changing the organization program to enhance students’ creativity effectively. Zhang and Niu (2013) also discuss the importance of daily activities and attitude that can influence the development of creativity in later lives, suggesting that individuals can continue to grow their creativity even in their later lives.

This attainable feature of creativity also implies China may place a greater emphasis on at least one type of creativity, the type of creativity that can be evolved. Ordinary people can be part of this evolution if they want to. Like food grain, there is an incremental change on how people can use it differently, but any new change is based on the understanding and connection to the tradition, which is viewed by Chinese as important.

In contrast, Americans seem to focus more on radical and revolutionary creativity. Such creativity is rare and distinctive; not everyone may be able to engage (Simonton, 1984, 1991, 1996). For example, in examining past literature in implicit theories of creativity, Lan and Kaufman (2012) suggested that Americans tend to value novelty and more groundbreaking types of creativity, whereas Chinese tend to appreciate creativity within constraints, such as reworking a traditional concept. The most common creativity assessment specifically rewards people for the rarest responses (Torrance, 2008). Plucker, Beghetto, and Dow (2004) further discuss how a common myth about creativity is that it is reserved for the geniuses; most people think that only a select few can be creative. More recent theories of creativity include both types of creativity (Beghetto & Kaufman, 2007; Kaufman & Beghetto, 2009).

Perhaps a comparable American analogy is the Pork Parfait. The brainchild of an Indiana company and offered at county fairs, the dish consists of pulled pork, mashed potatoes, and barbecue sauce shaped to look like an ice cream sundae (Katel, 2010). It is a meal that is both unusual and not designed for everyday consumption.
Related to the previous point, American and Chinese may also differ in their views on how to promote creativity. To the Chinese, because creativity is something attainable, there is a greater emphasis on hard work and practice in achieving high level of creativity. Creativity is like the old oil peddler to the Chinese people, whose famous phrase “practice makes perfection (Shu Neng Sheng Qiao 熟能生巧)” has inspired generations of Chinese to pursue excellence in their own chosen fields through consistently hard work. The story of the old oil peddler was recorded in the “Essay Collection of Ouyang Xiu (1007–1072)” (Ouyang, 1746/1925), in which an ordinary old oil peddler challenged the infamous Duke Chen who was a master of archery by showing his special skill in pouring a thread of oil through the hole of the coin into an oil bottle. The phrase “practice makes perfection” is often used to describe someone who achieves excellence including high-level creativity by consistent hard work and practice. The story is very popular in contemporary China due to the fact that it has been included in the middle school textbook for over three decades. The story and the idiom “Shu Neng Sheng Qiao” is often used by people in the pursuit of excellence in different fields, including different art areas. It may explain why many Chinese parents encourage, and often time push, their children to practice various forms of the arts, such as playing a musical instrument, painting, Chinese calligraphy, and Chinese chess, as a means to achieve artistic creativity. Even nowadays, the Chinese believe that people would not achieve high level of excellence and creativity unless they have reached a certain level of skill. Therefore, the training of basic skills is important for the cultivation of creativity.

Here, the Chinese notion of creativity in many ways equals perfection and excellence, resulting in the kind of achievement with a significant contribution to the field they have chosen to pursue. So it may be very much similar to the Big-C, the most renowned form of creativity or originality. But to the Chinese, the Big-C is something evolved from continuing improvement, which may or may not result from one single person’s act. This idea can be seen in the studies of implicit theories of creativity. For example, studies have shown that Chinese people like to identify characteristics such as “contribution to the society,” “inspiring to other people,” and “be appreciated by other people (Rudowicz, 2003, 2004; Rudowicz & Hui, 1996, 1997; Rudowicz & Yue, 2000).

The above characteristics are discussed by several articles of this special issue; for example, Yi et al. (2013) found that the more teaching experience teachers have, the more effectively they can foster the creative organizational climate of the classroom. In other words, teachers gained expertise over time that may help them have more freedom (and more confidence) to design their classroom, lessons, or teaching styles in ways that foster student creative expression. Lan and Kaufman (2012) suggested that Chinese people place more emphasis than do Americans on the creator’s social influence, status, fame, and contribution to society. According to Niu (2012), the Confucian notion of creativity places a great emphasis on a person’s purposeful engagement in the creative process. To Confucius, learning and practice is a more
comprehensive process, requiring a person’s long-time persistent devotion. To achieve high-level creativity, a person must purposefully study, build up his or her characters, know the environment, and comprehend everything around him or her.

Americans are more likely to concentrate more on endowing early inspiration than in instilling the importance of practice. One example can be seen in the Baby Einstein series of multimedia products and toys featuring classic music, art, and other cultural artifacts. Their goal is to have young children watch and interact with the videos. Most research does not support the use of such videos (e.g., DeLoache et al., 2010; Wartella, Richert & Robb, 2010), yet their continued popularity despite a lack of any evidence of actual success underlines the implicit belief that young children should be inspired to feel creative, as opposed to having creativity instilled in them.

Indeed, there has been a series of studies by Amabile and her colleagues (Amabile, 1996; Hennessey & Amabile, 2010) that have led them to argue that extrinsic motivating factors such as rewards, deadlines, and being observed can lower intrinsic motivation and therefore, inhibit creativity.

LOTUS VS. THE VENUS FLYTRAP

Creativity is like the lotus to the Chinese: it comes from the dirt, yet it stands out as glamorous, noble, unsullied, and diffused with fragrance, which symbolizes what great characteristics a true creative individual should have. In other words, there is an emphasis on the wholeness of the creative individual and his or her creative products. It is also important for a creative individual to be a model in the society. Also, like the lotus whose beauty can only shine through when it is connected with the dirt, the environment needs to be nurtured. Even though being new and distinctive is important, appropriateness is viewed as even more central to the Chinese notion of creativity. The dual features of being an exemplary individual and being connected to the environment are discussed in several papers in this issue, including Niu (2012) and Lan and Kaufman (2012). Niu (2012) explained that the Confucian ideal for a creative individual is someone with a high moral standard who is open-minded. Lan and Kaufman (2012) echoed this thought in their review of implicit theory research: the role of honor is still prevalent in contemporary Chinese notions of creativity. Furthermore, Niu (2012) discusses how, appropriateness means fitting to the changing context and working collaboratively within one’s environment. To do so, a creative person must self-cultivate and establish a presence in the local environment. Lan and Kaufman (2012) argue that the Chinese emphasize appropriateness more than novelty than do Americans. The need for variety and uniqueness tends to be stronger in Western cultures than in East Asian cultures. In addition, as they discuss, Chinese critics are less likely than their American counterparts to engage in direct confrontation, so their communication may appear to be ambiguous. One reason is the higher contextualization in Chinese culture. They also asserted that the Chinese may see creativity more as a means to an end, in which the concern of national economic growth trumps the development of individual creativity. This echoes Peng and Plucker’s (2012) reflections on the recent reforms in policy making in China, which seem to place too much emphasis
on pragmatic aspects of creativity, prioritizing usefulness and acceptability over novelty.

In contrast, the American idea of creativity is more internal and individual-focused. There is less focus on a creative individual’s responsibility to the environment. Indeed, working collaboratively with the environment is actually viewed as not being creative by the American standard. Creative individuals should possess qualities that defy the crowd and then convince others of the value of their ideas (Sternberg & Lubart, 1991, 1995). Such an inward focus may lead to haphazard, incomplete, or ultimately useless creative contributions. An example would be malevolent creativity as discussed by Cropley, Kaufman, and Cropley (2008) — the idea that a creative act can be intentionally harmful. Kaufman, Cropley, Chiera, and White (2013) found that Americans found morally ambiguous acts to be more creative. Americans would be more likely to appreciate creativity that is not holistic, good, and pure — perhaps more similar to the Venus Flytrap, a plant that traps and eats small insects. It appears clever and different, but may not be the noblest of our green friends.

We would like to move beyond the metaphor approach and focus more specifically on examining creative education from the Chinese and American perspectives.

TOP-DOWN VS. BOTTOM-UP APPROACHES IN PROMOTING CREATIVITY

Peng and Plucker (2012) discuss the approaches in promoting creativity in China as being top-down, as China’s national developmental strategies decide national and local educational policies and subsequently determines when and how creativity is nurtured at the local, school, and classroom levels. This system contrasts with the bottom-up approach, which is more common in America. This approach emphasizes the self-initiated process at the local level to promote creativity by addressing teachers’ and students’ intrinsic motivation to be creative.

This top-down approach certainly has its strength and has showed marked benefits in the last few years when China experienced a transformation in its educational policies for creativity education and set up promoting creativity into its national strategic plans. According to Peng and Plucker, promoting creativity as a national priority can increase public awareness of these issues and provide necessary resources to local schools to address creativity education. However, if such policies are created not by education experts but by senior politicians looking at economic growth, the risk exists that important issues will be overlooked. As a result, only selected groups such as college students and business enterprises are the beneficiary of these policies, whereas the majority, including children from primary and secondary schools, are yet to receive adequate resources in creativity education. Peng and Plucker (2012) further question the effectiveness of this approach in promoting creativity in the long run. They call for the inclusion of the bottom-up approach in which students’ and teachers’ creativity is also addressed.

The bottom-up approach, on the other hand, has been adopted widely in the United States. Most creativity education programs are locally funded by independent agencies [e.g., Sternberg & Rainbow Project. (Col), 2009]. In fact, this journal itself is sponsored by an independent foundation, the Creative Educational Foundation...
(CEF). The CEF was established in 1954 by legendary advertising executive (and coiner of the term “brainstorming”) Alex Osborn. In addition to sponsoring this journal, the CEF also sponsors other scientific projects, such as conferences, training workshops and symposiums, and book publications. Most importantly, CEF supports various training programs including creativity training, innovation consulting, and innovation culture development to a broader audience. There is a strong belief from the American cultures to emphasize individual freedom and self-exploration, and promoting creativity is naturally connected to this belief.

The difference in approaches (top-down vs. bottom-up) in American and Chinese creativity education may explain the cultural differences in people’s perception and performance. There are a number of studies (e.g., Jaquish & Ripple, 1984; Jellen & Urban, 1989; Niu & Sternberg, 2001, 2003; Niu, Zhang & Yang, 2007) that show Chinese students lag behind in creativity compared with their American counterparts. Wong and Niu (2013) further demonstrated that both Chinese participants and American participants believed the stereotype that Chinese students are less creative than their American counterparts, even when they were told otherwise.

The effectiveness of the current Chinese top-down approach has not been empirically examined in detail. However, given the cautions and analysis from Peng and Plucker (2012), China also ought to adopt the bottom-up approach.

ENVIRONMENT-FOCUSED VS. SELF-FOCUSED

Many articles in this issue discuss the question of whether one’s primary focus is the self or the environment. Yi et al. (2013) showed the direct impact of school climate on student creativity and asserted that environment is vital in creative education in China. According to Niu (2012), creativity in Chinese tradition has always been tied to the environmental context. Its importance is expressed not only as nurturer and recipient, but also as a part of the creation process itself. This notion is called co-creativity. In China, there is a great emphasis on the reaction of the recipient to the creative product or creative idea. Although novelty is important, appropriateness is always viewed as more important in judging creativity according to the Chinese tradition. This tendency does not mean that creativity must appeal to the masses; it means that the creative individual should remain sensitive to the changes of the environment and adjust their product to fit the purpose of the environment. Peng and Plucker (2012) explained how China sees promoting creativity as the key for the sustainable growth of its national economy, and allocates resources specifically in the areas that can potentially have a greater impact on the national economy such as sciences and technology. In other words, promoting individual creativity is to fulfill the needs of the society or the environment. Lan and Kaufman (2012) also discussed the importance of appropriateness in the Chinese notion of creativity and the importance of environment or the audience to creativity. To Chinese, creative individuals should not see themselves as distinct figures who stand out from the crowd; rather, they should be part of and work for the crowd.

In contrast, creativity is more self-focused in American culture. Sternberg and Lubart (1991, 1995) discussed characteristics such as thinking styles and the personality
of creative individuals. They argued that such creators tend to prefer to make their own rules (i.e., a legislative thinking style) rather than following other people’s rules (i.e., an executive thinking style), or evaluating other people’s work (i.e., a judicial thinking style). In addition, they tend to be open-minded and extroverted (and, indeed, most personality research supports this, i.e., Batey & Furnham, 2006; Feist, 2010; King, Walker & Broyles, 1996).

The differences in how cultures view the relationship between the self and others have been widely examined (Markus & Kitayama, 1991; Morris & Peng, 1994; Nisbett, Peng, Choi & Norenzayan, 2001; Triandis, 1975, 1977). A closer example to the point here is Morris and Peng’s study on cultural difference in attribution errors. In one study, they let their American and Chinese participants watch a series of cartoon pictures projecting an individual fish swimming in front of a group of fish, but in a different direction. They then asked all participants to make an attributional judgment about the fish’s behavior — whether it was internally or externally driven. Americans tended to see the individual fish voluntarily swimming away from the crowd, whereas Chinese tended to emphasize external reasons for the fish’s swim, such as the school of fish deciding to reject the individual fish by swimming away. In other words, being different from the crowd is not a favorable trait to the Chinese. It may explain why the Chinese concept of creativity emphasizes the connection with the context: any creative act has to fit the changing environment; otherwise, it would be considered strange and unacceptable.

In comparing the difference in the evaluation process to creative product, Lan and Kaufman (2012) found that Americans expect products to be esthetically pleasing, humorous, novel, or even groundbreaking, whereas Chinese appreciate a product with more class and popularity, as well as congruence with traditional and social norms. Lan and Kaufman also stated that Chinese people tend to emphasize the practical aspects of creativity rather than the goals. This echoes Peng and Plucker’s (2012) reflection on the recent reforms in policy making in China, in which innovation and creativity are used interchangeably. Such conceptual ambiguity may also lead Chinese place too much emphasis on pragmatic aspects of creativity, prioritizing usefulness, and acceptability over novelty. Conversely, however, the American tendency to value the “new” may result in overlooking the actual practical implications of being creative. As Staw (1995) articulated, “creativity suffers from a large case of false advertising. The popular press, along with the collusion of many consultants and academics, has sold us the notion that we can reap the rewards of Galileo, Edison, or Picasso without paying the full price” (pp. 478–479). Just as Chinese emphasize the external and the audience (i.e., Paletz, Peng & Li, 2011), Americans focus on the internal and the self. Such an inward focus may lead to haphazard, incomplete, or ultimately useless creative contributions.

INTRINSIC MOTIVATION VS. EXTRINSIC MOTIVATION

According to Amabile’s (1996) componental theory, a person’s creativity is affected by three aspects, domain-specific knowledge, creativity-related abilities, and intrinsic motivation. Among the three, there is a strong emphasis on the intrinsic
motivation, which has been extensively researched, mostly in the United States, and there are enough evidences to support the theory that people’s creativity can be diminished if they are driven extrinsically. However, the theory has yet to be examined fully in the Chinese culture, especially with relationship to the other two aspects: domain-specific knowledge and creativity-related abilities. In an examination of a Chinese mathematics classroom, Niu and Zhou (2010) has asserted a Chinese teachers’ training model and its system of promotion encourage teachers to learn from the collective wisdom of their peers with regards to creative teaching strategies. More specifically, the system of exercising a “model lesson,” a type of cognitive apprenticeship in which inexperienced teachers observe well-crafted and executed classes taught by experienced teachers, makes Chinese teachers treat classroom teaching as a performing art, and it is both socially and economically desirable for novice teachers to learn and exercise to become an artist in teaching mathematics. Peer observation especially open observation by a group of other teachers, peer critique, and competition in classroom teaching are all external incentives; however, they are used widely in Chinese teaching training systems and are deemed as effective ways in achieving creative teaching.

Lab experiments examining motivation and creativity in the Chinese context have also shown some mixed results. Generally, intrinsic motivation seems to help student creativity, although extrinsic motivation is not seen as a negative. For example, in one study, Niu and Liu (2009) found that creativity of Chinese students actually increases when they were explicitly told the goal of the creativity and the means to attain creativity. Chinese participants are also more affected by special instructions that explicitly encourage them to be creative, perhaps because of the need for “permission” to be creative (Niu & Sternberg, 2001).

It may relate to Chinese educational practices where competition among students is encouraged and practiced on a regular basis. External incentive, pressure, or encouragement from others, especially from an authoritative figure, may serve as effective motivators to Chinese students for tasks that require creative thinking. More studies are needed in this area to examine this notion further.

CONCLUSION

American and Chinese students are two of the most studied populations in the field of creativity. A quick PsycINFO search using creativity and different cultures as key words revealed 55 hits for American, 42 for Chinese, 19 for Indian, 14 for Korean, 13 for African, 13 for French, 10 for British, 10 for Jewish, 8 for Japanese, 7 for German, 6 for Russian, and 5 for Arabic cultures. Among the 42 publications on creativity of Chinese, 38 are produced in the 21st century, illustrating the shifting interest in this topic over the past decade. Collectively, all seven articles of this issue have shown that creativity is at a critical state in China nowadays, with an urgent and strong need to address this topic. Wong and Niu’s study (2013) has shown that both American and Chinese students have strong stereotype perceptions that Chinese are less creative than Americans. Such a perception is held so strongly among the Chinese that they still endorse this belief even when told otherwise. Peng and
Plucker’s (2012) analysis of Chinese governmental policies in creative education indicates that promoting creativity has been listed in China’s national strategic plans in the last few years.

Most theories and measurements in past international research have drawn from the West, and particularly from the United States. Yet this tendency is shifting around the world, including China. From the methodology used in many studies of this issue, we can see the diversity in approaches to studying creativity in the Chinese context: theatrical, psychometric, development, social, as well as survey and interview. Chinese creativity research has moved beyond merely adapting the work of the West. Chinese culture is a source for some of this work; others have adopted indigenous measurements. We hope this trend continues. As creativity research becomes truly global, the way that each culture expresses and values creativity can be studied in deeper and more systematic ways. This work will enable people worldwide to nurture creativity from a vast multitude of perspectives.

What exactly can we learn from this collection? First, although there is a universal and communal standard for judging creative ideas, culture still plays an important role. Representing one important cultural tradition, the Chinese culture has historically viewed the importance of appropriateness and acceptance of the environment in understanding creativity, which is a contrast to the individual and internally focused perspectives found in American cultures. Chinese culture also places more emphasis on learning and practice in the process of achieving creativity, and consequently, is more willing to take a progressive approach in addressing the creativity crisis of the nation. Examining the policies and practices in creative education between China and United States can let us ponder both the top-down and the bottom-up approaches adopted by the two cultures. Each has its own strength; working within both perspectives may be more effective. Research from the United States has clearly demonstrated the positive relationship between intrinsic motivation and creativity, which supports the bottom-up creative education model. Yet past research suggests that China’s top-down approach may mean that extrinsically driven instructions can also serve as effective tools to stimulate individual creativity. These ideas warrant future research and collaborations.

REFERENCES


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