
INSPIRATION MECHANISM OF DANCE CREATION BASED ON BRAIN SUBCONSCIOUSNESS THEORY

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Abstract

The inspiration from “subconscious mind”, i.e. the subconsciousness of the brain, is critical to dance creation. This paper makes a thorough review of the theory of brain subconsciousness, details the elements of dance creation, and then determines the role and mechanism of subconsciousness in inspiring dance creation. The results show that, the inspiration in dance creation is a unity of functions, concepts and aesthetics achieved through long-term pondering, rather than appear out of nowhere; the generation and development of inspiration can be divided into three processes: preparation, excitation process, and capture and processing; the dance creation is an integration of logical thinking and nonlogical thinking; analyzing the bionic elements through logical thinking, converting them into inspiration fragment through nonlogical thinking, and integrating the fragments through logical thinking again. The research findings shed theoretical new lights on the study of brain neuroscience in dance creation.

Key words: Dance Creation, Brain Subconsciousness, Creative Inspiration, Inspiration Mechanism, Logical Thinking.

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INTRODUCTION

From the perspective of neuroscience, the subconsciousness of the human brain can be attributed to the sum of all psychological components and instincts. It contains various components, including instinct, desire, emotion and ideas (Rossdale, 2015). As an inherent instinctive factor of consciousness, under certain conditions, the subconsciousness of the human brain can be divided into two parts: the aware domain and the unaware domain, wherein the components of aware domain play a decisive role in people's behavior and thought performance (Leo, 2007; Wakpa, 2016). Subconsciousness will bring new consciousness to people continuously, and the new consciousness will generate new information; moreover, the information storage in the brain can be continuously supplemented during the

activities developing from subconsciousness to consciousness, which will also provide constant inspirations to people (Matus, 2007). According to the analysis of the core layer of the brain, subconsciousness has physiological mechanism and objective material basis, it cannot be taken as an unconditional reflection chain of instinctive impulses, but a conditional reflection phenomenon associated with consciousness (Abel-Hirsch, 2016).

The social anxiety disorder of childhood (SADC) is a common emotional disorder of children, and will seriously influence children's physical and psychological health. Studies show that children with SADC present comparatively significant differences from normal children in perception, emotion, family life, peer interaction, school life, living environment, self-knowledge, experience of depression, and anxiety experience. In addition, the disability related to autism has already become the most common mental disturbance among Chinese children. Besides, the continuous increase of

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morbidity and younger-age trend of childhood obesity are also restricting children's healthy growth.

With the prosperity and development of dance industry, an artistic and cultural trend of the returning of traditional culture and the awakening of folk culture has emerged gradually. The creative inspiration of dance is controlled by the brain subconsciousness (Hargaden, 2016). A successful dance performance or a distinct dance style inevitably and closely links people's life experiences in reality with the customs. At the same time, the brain subconsciousness gradually leads the choreographers to create dances with unique aesthetic ideals and aesthetic norms (Bettiga, Lamberti, & Noci, 2017). An important technology of dance creation is bionics. Bionic elements can be used to obtain original, innovative and novel creation materials and themes, thus stimulating people's subconsciousness to form new knowledge and inspire creativity (Augello, Infantino, Manfrè et al., 2016). Taking the original dance of Zhuang nationality in China as an example, the analysis of the form, gesture and movement characteristics of dance creation reveals people's awe of nature, their cognition of thinking, and the sublimation of the spirit and thoughts (Singhi, Saini, Sankhyan et al., 2015). Based on the theory of brain subconsciousness, this paper explores the role of subconsciousness in inspiring dance creation and discusses the inspiration mechanism behind it in depth.

EXPANSION AND DEEPENING OF THE BRAIN SUBCONSCIOUSNESS THEORY

Expansion of brain subconsciousness theory

Human thinking activities refer to the activities of the abstraction of specific matters, and the reorganization and induction after that. The premise of people's thinking activities is that the mankind has consciousness, which exists in the brain in a three-dimensional network form, therefore, generally, for the same thing, different conscious forms would give different meanings (Miura, Sugiura, Takahashi et al., 2010). Figure 1 shows the theoretical system of brain subconsciousness, including three parts: The foundation of Freud's individual subconsciousness theory, the contents and characteristics of the individual subconsciousness theory, and the contribution of the individual subconsciousness theory. Wherein the main contents of individual subconsciousness include subconsciousness and consciousness, unconsciousness and subconsciousness, subconsciousness and dream, subconsciousness and instinct; the main characteristics of individual subconsciousness are primitive, impulsive, non-logical, non-temporal, non-moral and non-linguistic; the prominent contribution of the individual subconsciousness theory is that it discovers a new continent in human mind and opens up a new area for the psychological research. Figure 2 is an extension of the theory of brain subconsciousness, including the criticism of the individual subconsciousness theory, the

Figure 1. Theoretical system of brain subconsciousness

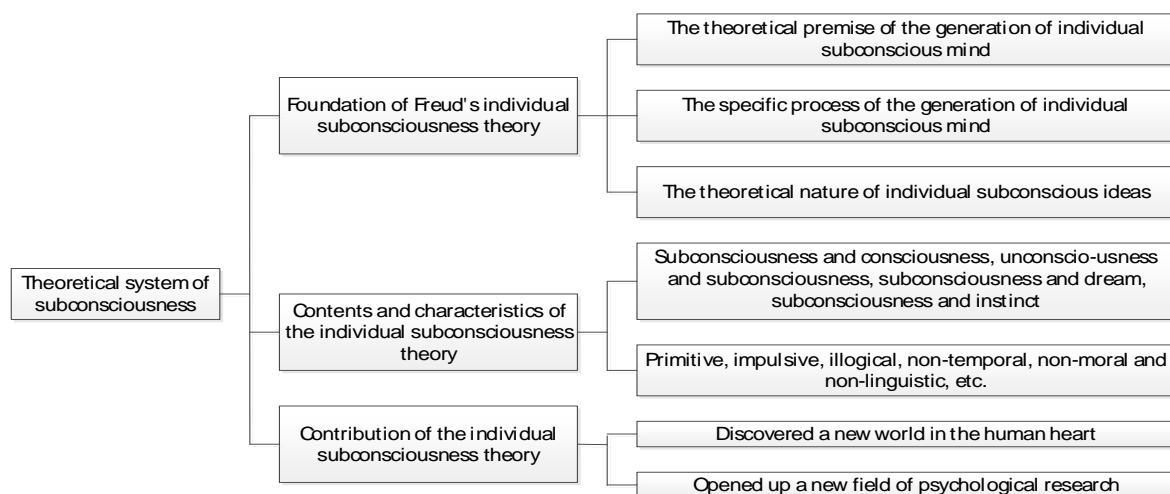


Figure 2. Extension of the brain subconsciousness theory

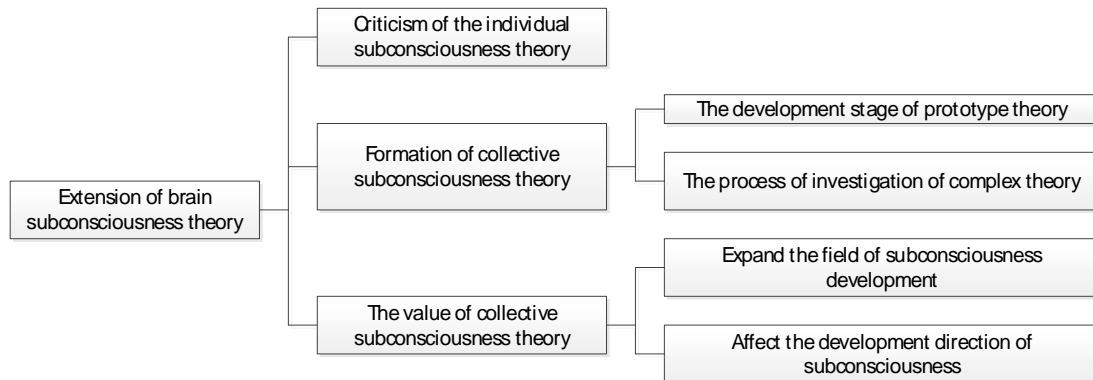


Figure 3. The deepening of the theory of brain subconsciousness

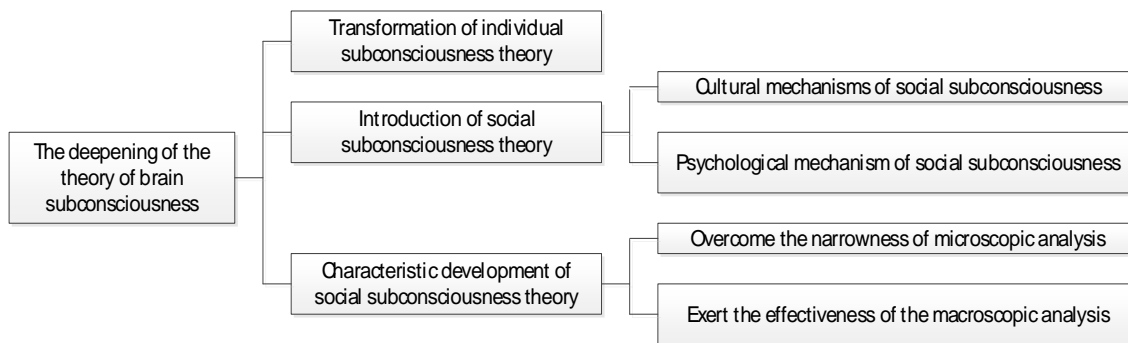


Table 1. Types and definitions of perceptual thinking

Type	Characteristic	Definition	Significance
Visual perception	A kind of creative thinking	It is the essential explanation of the perceptual things and the overall results of the physical objects.	There is a close connection with aesthetics and can awaken the experience
Auditory perception	A sound perception	Include the sounds of nature and the human voice, beautiful melody and noise.	Make the experience and cognition more true, combined with visual perception
Gustatory perception	A kind of aesthetics associated with the spirit	Not only is it a visual sense of the taste of the food, but also an experience associated with the spirit.	Feel the expression of architecture for survival
Tactual perception	A direct link to life	Let people feel the change of the outside world, and have a direct connection with life.	It can enhance the intensity of perception, extend the scope of perception, and extend the experience of perception.

formation of collective subconsciousness theory and the value of collective subconsciousness theory, wherein the main value of collective subconsciousness is that it expands the field of subconsciousness development and influences the development direction of subconsciousness.

The deepening of brain subconsciousness theory

In terms of the human brain subconsciousness, it's generally believed that the collective subconsciousness is a congenital

spiritual phenomenon that cannot be counted as consciousness, and the social subconsciousness of the brain is the part of the spirit of the social members that is generally suppressed in the whole society (Tauber, 2013, Schneider, Nott, & Dux, 2014). The subconsciousness of the brain is the basic driving force for the psychological activities, and the source of the motivation and intention of human actions. Inspiration comes from the subconsciousness, but its stimulation requires a certain objective basis, namely the stimulation of external information (Rotmann, 2002). When the human brain does not receive or store any information, the stimulus can only produce unconditioned reflexes, which means that it requires certain psychological information reserves to trigger the inspiration (Manfré, Augello, Pilato et al., 2016). Figure 3 is the deepening of the brain subconsciousness theory. The deepening contents include the transformation of individual subconsciousness theory, the introduction of social subconsciousness theory, and the characteristic development of social subconsciousness theory, etc. Wherein the social subconsciousness theory has overcome the narrowness of microscopic analysis and exerted the effectiveness of the macroscopic analysis.

The "sub-" consciousness is a creative thinking method based on perceptual knowledge such as perception, intuition, and experience (Lafrance, & Cuttler, 2017). To perceive the essence of things through appearance, perceptual thinking is the forms reflected into the brain after various human body organs have been stimulated, including visual perception, auditory perception, gustatory perception, and tactual perception, as shown in Table 1. It extracts information through senses, and combines with the human intuition and experience to form a perceptual thinking form, therefore, perceptual thinking is the starting point of "sub-" consciousness.

DANCE CREATION ELEMENTS AND PRACTICAL RESEARCH

Bionic elements in dance

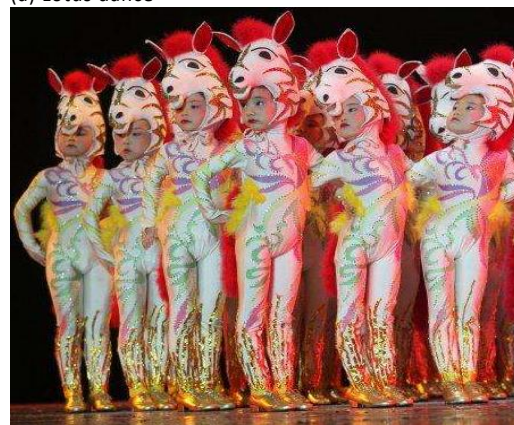
Bionic elements are widely used in the field of art, covering all aspects of people's lives, including architecture, dance, costumes and painting, etc. (Bian & Zhao, 2018). Bionic elements come from nature, including the structure, shape, color and motion patterns of

animals and plants, and all these bionic elements can become the blueprint for the creation of dance art. Brain subconsciousness is stimulated by natural beauty and then applied to dance creation, in such case, it can express beautiful structural forms and modes of motion. Based on the brain subconsciousness theory, with bionic elements as the stimuli of subconsciousness, the creation ideas of dance can be broadened, the creation inspiration can be triggered, the dance vocabulary can be enriched, and the novelty and innovation of the dance works can be enhanced, thereby creation impetus can be introduced into the dance art. Dance creation includes dance forms, dance music, dance costumes and dance props, etc. The bionic elements studied in this paper are mainly the external bionics of dance, namely the dance forms and props.

Figure 4. Bionic elements in dance



(a) Lotus dance



(b) The dance of flying hoofs

Inspiration is not coming out of air under the subconsciousness. The generation of inspiration is generally divided into three processes, including the preparation process of inspiration

generation, the process of excitation, and the process of capture and processing. Figure 4 (a) shows the performance called the lotus dance. The bionic element of the dance is lotus flowers. Through the dancing gesture of the dancers and the props background, it constructs a scene of blooming lotus flowers in the lake, expressing the praise for beautiful things. Figure 4(b) shows the flying hoof dance. The bionic element of the dance is horses, which shows a kind of lively and lovely image through choreography.

Dance creation techniques and practice

The creation of dance is not a linear development process, but a divergent process from the generation of creation inspiration to the completion of the creative work. Figure 5 is a schematic diagram for the overall operation of the dance creation. The overall creation processes include the structure mode of the dance, the choreography style of the dance, the space arrangements, the image extraction, and the comprehensive matching, etc. Dance creation has nothing to do with the region. Different cultural ideas would produce different life rhythms.

Figure 5. Overall operation of dance creation

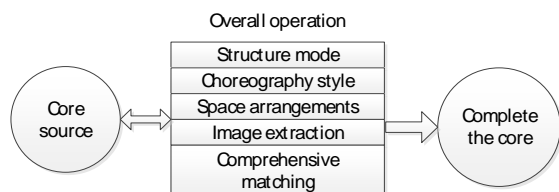


Figure 6 shows the dance creation technique for the dance "Bronze imprints", by using human bodies as a graphic tool to express the bronze patterns, the dance applied reconstruction, combination, recurrence, deconstruction and other vocabulary construction methods, and created a "animism" dance style by dancing gestures that imitate the bronze patterns. Figure 7 shows a dance called "All living things". It used human body to compose the symbols of Chinese traditional culture, the choreography of the dance consciously and flexibly adopted the traditional Chinese art expression techniques, emphasizing the white spaces, an oriental aesthetic style, in the composition of the stage. Figure 8 is a dance called "Youth and the Sea".

The dance creation used the virtual and real background techniques to represent the lively marine creatures with ribbons, showing the bond between human and ocean.

Figure 6. Creation of the dance "Bronze imprints"

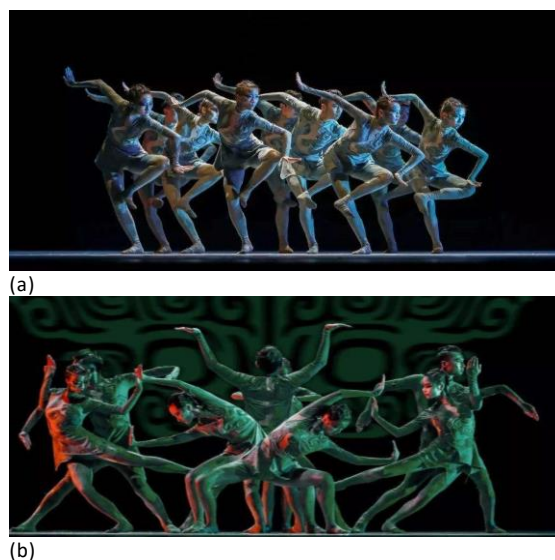


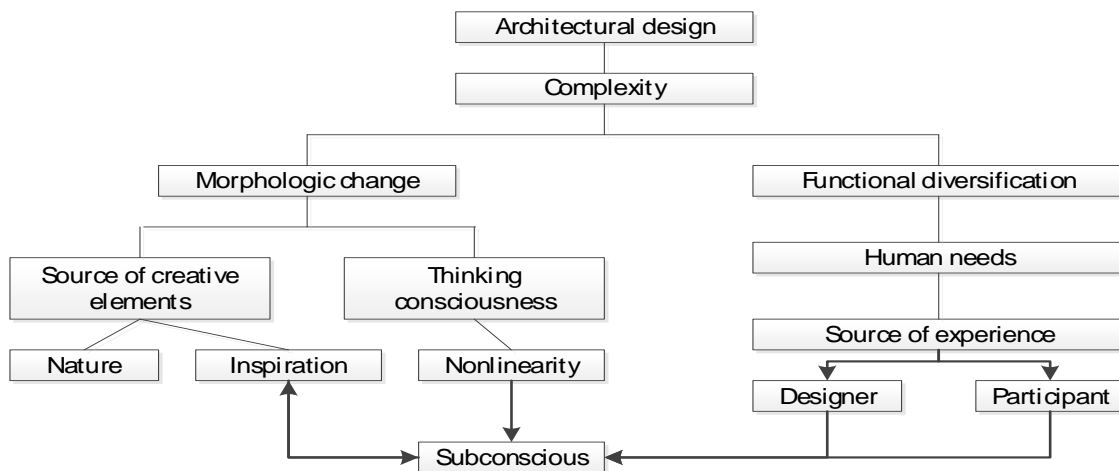
Figure 7. Dance "Every living thing"



Figure 8. Dance "Youth and the sea"



Figure 9. The relationship between subconsciousness and inspiration



INSPIRATION AND INTERPRETATION OF BRAIN SUBCONSCIOUSNESS ON ORIGINAL DANCE CREATION

Inspiration of brain subconsciousness on original dance creation

Dance creation is a creative activity that relies mainly on the inspirational thinking, namely the creative thinking generated after the interaction between the subconscious non-logical thinking and the conscious logical thinking. When creating dance, the first thing is to use logical thinking to analyze the bionic elements, then divert them into design inspiration fragments through non-logical thinking, and return to the logical thinking to integrate the fragments, and finally get the final creative scheme. Throughout the process, only by repeated interaction of non-logical thinking and logical thinking can we make the design creation meet the requirements of both the ideality and the reality. Therefore, the inspiration source of dance creation is not accomplished in one action, but a kind of thinking activity after long-term precipitation and accumulation.

At present, the most valuable dance creation is to mix multiple dance symbol elements together to display the profound and distinctive national cultural heritage. Dance creation exhibit not only the dance itself, but also the cultural heritage and dance symbols. In general, dance creation is a unity of functions, concepts and aesthetics.

Interpretation of brain subconsciousness on original dance creation

With the development of the times, rational thinking has gradually been questioned, and the rule-breaking and non-harmonious design concepts have been established. Especially in terms of art and aesthetics, irrational thinking breaks through various systems and boundaries, making art more vivid and diverse, and making people's experience more liberal. With the crossing and integration of multiple disciplines and fields, the simple and inherent scientific methods have gradually shifted to complex nonlinear scientific methods. In accordance with this scientific development trend, the brain subconsciousness theory and creative and inspirational thinking have transformed toward the direction of asymmetry, non-uniformity and nonlinearity. Figure 9 is the relationship between inspiration and brain subconsciousness. The generation of inspiration is the result of the interaction between non-logical thinking and logical thinking during this thinking process, that is, consciousness is the foundation for the source of inspiration. Figure 10 show a portrait of a man wearing a broadsword with ring-shaped pommel, this image is from the Huashan Cliff paintings, which are a part of the Zuojiang rock painting system with the characteristics of largest scale, most powerful individual figure, and largest individual figure body shape. Many dances draw on the totem elements of Huashan Cliff paintings. The human body controlled by the brain is the best image of the soul. The movement of the body is the externalization of human thoughts and the

tendency of psychological activities, and the presented body language of the dance is more refined and accurate. Dance expresses emotions through the body. All movements, gestures and various morphological elements have certain emotional sustenance. Its main idea is to exhibit symbols, emotions and meanings, and to express the creators' and the performers' understanding and expression of the essence of human emotions.

Figure 10. Portrait of a man wearing a broadsword with ring-shaped pommel, from the Huashan Cliff paintings



CONCLUSIONS

Based on the theory of brain subconsciousness, this paper explored the role of subconsciousness in inspiring dance creation and the inspiration mechanism behind it. The specific conclusions are as follows:

(1) The main contents of individual subconsciousness include subconsciousness and consciousness, unconsciousness and subconsciousness, subconsciousness and dream, subconsciousness and instinct; its main contribution is that it discovers a new continent in human mind and opens up a new area for the psychological research, and the main value of collective subconsciousness is that it expands the field of subconsciousness development and influences the development direction of subconsciousness.

(2) Dance creation is a divergent process. Brain subconsciousness is stimulated by natural beauty and applied to dance creation, in such case, it can express beautiful structural forms and modes of motion. Dance creation includes dance forms, dance music, dance costumes and

dance props, etc.

(3) Dance creation is a creative activity that relies mainly on the inspirational thinking, namely the creative thinking generated after the interaction between the subconscious non-logical thinking and the conscious logical thinking. Dance uses the body to express the creators' and the performers' understanding and expression of the essence of human emotions.

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