Embodied Cognition in the Suzuki Method of Actor Training: Body effects on mood and perception

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Abstract. This paper presents my accomplishments during my graduate studies in the MFA program at Beijing Film Academy and subsequent to my participation in Suzuki Method Actor Training Camp in Wujiangzhai, China. It is an interdisciplinary exploration that combines embodied cognition theory with actor performance training, particularly the Suzuki Method of Actor Training. Suzuki Tadashi, a renowned Japanese theater maestro, devised the Suzuki Method of Actor Training, which emphasizes the cultivation of the actor's physical sensibilities and enables the actor to uncover self-awareness within the body. Through literature review and practical experience, this work draws on the physiological mechanism of the interaction between activating actors' physical experience and mental states in the Suzuki Method, aiming to offer a novel perspective on the inseparability of mind and body in performance training. Utilizing the theories of neuropsychologist Antonio Damasio and the concept of "mirror neurons" as tools, the study endeavors to clarify the complex biological foundations underlying the physical "grammar" in the Suzuki Method. This research summarizes existing performance theories and practical observations in the domain of the mind-body relationship, recognizes the significance of the actor's body in perception and emotional expression, and also provides a certain reference for more effectively designing performance exercises that integrate body and mind and for cultivating a more enhanced embodied actor.

Keywords: Suzuki Tadashi, Embodied Cognition, Actor Training, Perception, Emotion

1 Introduction

In the realm of scientific evolution, almost all branches of neuroscience and cognitive science have come to a consensus that the human mind and body are not separate entities. A recent study published in Nature in 2023 provides evidence that scientifically confirms the inextricable link between the human body and mind [1]. Researchers at Washington University in St. Louis have identified three areas in the motor cortex of the human brain that have no connection to movement but are instead associated with thinking and planning decisions. This finding implies that the brain's motor cortex is not solely related to movement; rather, it contains a somatic-cognitive

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action network (SCAN) linked to executive functions. This may help explain the frequent interaction between mind and body states [1]. The modern trend in cognitive science known as embodied cognition overlaps with ideas that have long been explored in performance field. In the context of performance, there is a solid basis for believing that actors' physical and mental states are merged during their acts.

The fundamental source material for an actor's performance stems from genuine human behavior. Consequently, comprehending the crucial processes within the body in relation to perception and emotional expression holds significant value for actors. The examination of the physical-psychological relationship of actors is a topic that has been recurrently deliberated upon throughout the ages. In his later years, Stanislavski came to recognize that physical action could facilitate thinking and feeling. During the final stage of his life, he shifted towards the Method of Physical Actions, where the actor takes physical action as the leading element to stimulate emotion and attain the subconscious creativity of nature, thereby realizing the combination of internal and external aspects. In 1910s, Meyerhold developed his system of Biomechanics, which placed emphasis on emotional stimulation originating from the external body to achieve the unity of body and mind. In 1940s, Michael Chekhov pioneered his acting technique known as "Psychological Gesture" in his classic book *To the Actor: On the Technique of Acting.* In the 1960s, Jerzy Grotowski created a series of physical techniques to enrich the actor's performance. And in the mid-1970s, the Japanese theater master Suzuki Tadashi created a unique "the Suzuki Method of Actor Training", emphasizing the mobilization of actors' body consciousness and the excavation of animal energy.

Suzuki Tadashi is one of Japan's renowned national theater masters. He is the founder and director of the Suzuki Company of Toga (SCOT) and the initiator of the Toga Festival, which is Japan's first international theater festival. Suzuki Tadashi created and developed the Suzuki Method of Actor Training and laid down its theoretical foundation in his book *Culture Is the Body: The Theatre Writings of Tadashi Suzuki*. Suzuki Tadashi held the view that actors ought to concentrate on nurturing body perception, which intrinsically possesses distinct physiological and neurological characteristics [2]. For numerous contemporary performing practitioners, comprehending the relationship between physical action and inner activity remains crucial for performance. When we embark on research centered around performance elements like action, emotion, and imagination, it becomes essential to learn from and draw upon neuroscience to explore its connections with performance. As a forward-looking theory, embodied cognition can assist us in understanding, from another perspective, the significant role that the actor's body can play in performance, particularly in body-oriented performance training. The concept of mirror neurons present in the human brain and the contributions emerging from other fields such as neurology and psychology are highly worthy tools for interdisciplinary research.

Although the relationship of interaction between physical activity and cognitive perception has not been experimentally evaluated in the studies of the Suzuki Method of Actor Training, the expanding field of embodied cognition and the development of neurobiological sciences provide a theoretical framework and supportive empirical evidence for research in this area. To clarify this research, I first drew on the theory of

embodied cognition, including physiological and neurological explanations. In the field of embodied cognition, there are several significant contributions. The book *Experimental methods in embodied cognition: how cognitive psychologists approach embodiment* by Arianna Felisatti and Martin H. Fischer serves as the latest introduction to the methodology of behavior and neuroscience. It integrates interdisciplinary theories and practical research techniques, enabling anyone to explore the role of the body in cognition [3]. I also made use of the research findings of researchers like neuroscientist Antonio Damasio and cognitive scientist George Lakoff and Gallese. They described phenomena such as the neurobiology of emotions, mirror neurons, and the relationship between the body's influence on thought and behavior. Simultaneously, I perused the research literature regarding the interaction between embodied cognition and the performance field. Notably, The research of scholar Tine Damborg mainly explores the relationship between the embodied cognition and actor movement training, especially how Meisner's repetitive practice and contact improvisation can help become an enhanced embodied actor [4]. The research of PhD researcher Micia De Wet offers a critically reflective discussion and suggestions on the role of embodied cognitive science within theatre and performance discourse [5]. The Researcher, professor, actress, and theater director Castilho Barone Luciana Paula discussed the integration of Body-Mind Centering (BMC) practices with elements of Michael Chekhov's technique. She explored the relationship between specific imaginary centers and the corresponding organs and tissues of the body and revealed that BMC broadens the perception of internal physical aspects as a mental state, which also supports Chekhov's thoughts [6]. And the book *Embodied Acting: What neuroscience tells us about performance* by actor, director and professor Rick Kemp proposed a theoretical framework for exploring performance training methods from the perspective of embodied cognition and how actors can better understand the relationship between the body and the mind [7]. In addition, I studied Suzuki Tadashi's classic work *Culture Is the Body* and related documents to further understand the concept of the Suzuki Method of Actor Training. I also combined my personal experience as an actor and trainee participating in the Suzuki Method Actor Training Camp to attempt to apply the discoveries of embodied cognitive science to the research of the Suzuki Method.

2 Embodied Cognition and The Neurobiology of Action

Embodied cognition, an emerging area within cognitive research that started to take shape in the 1990s, places a strong emphasis on the crucial role of the body in cognition. The seventeenth-century philosopher Descartes developed the concept of mind-body dualism. In the eighteenth century, Denis Diderot applied this concept to performance and separated emotion from physical activity. At the dawn of the twentieth century, the German philosopher Martin Heidegger put forward the philosophical concept of "existentialism". In this view, human beings come to know the world by using our bodies to interact appropriately with other objects in the world. The French phenomenologist Merleau-Ponty proposed the idea of embodied philosophy, which contends that the subject of perception is the body and that the body is embedded in

the world. From a psychological perspective, embodied thought can be traced back to James-Lange's theory of emotion, which posits that the body plays a role in the formation of the mind and emotions. All of these theoretical perspectives highlight the role of bodily activity in thinking and cognitive processes, thereby contributing to the development of the embodied cognition research stream of thought.

Embodied cognition has transitioned from being confined to philosophical discourse to undergoing empirical exploration, with numerous psychological and physiological scientists having conducted a substantial number of relevant experiments to buttress the concept of embodied cognition. In 2013, Tal Shafir and Stephan F. Taylor et al. devised three tasks to gauge the effects of whole-body dynamic expression of emotions [8]. All three tasks, namely motor execution, motor observation, and motor imagery, enhanced the corresponding affective state and, as a result, have the potential to be employed for regulating emotions. In 2021, Sarah Awad et al. conducted research on the effects of postures on mood states using an implicit posture manipulation. The findings revealed that subjects with an upright posture exhibited a more positive general mood and higher processing speed compared to those in stooped postures [9]. In 2023, Omid Khatin-Zadeh et al. carried out a quantitative experimental study to measure the hand and head action strengths of eight typical emotional states. The data indicated that happiness, anger, and pride were primarily accompanied by upward gestures, while sadness and shame were accompanied by downward gestures. Surprise was mainly accompanied by forward gestures, and fear and disgust were accompanied by backward gestures [10]. Our facial muscle activities, diverse body postures, and alterations in body movements will alter our psychological emotions, suggesting that the body is the foundation of emotional expression and that emotions are reliant on the body and behaviors.

The emerging discoveries and evolving outcomes of contemporary neuroscience in the domain of cognition, in turn, urgently require integration with actor performance training. As per neuroscientist Antonio Damasio, upon receiving stimuli from both internal and external sources, the body generates sensory or emotional signals that are transmitted to the brain's somatosensory system via different pathways, endowing the body with a sense of reality [11]. Whereas investigations of mirror neurons have demonstrated that emotions stimulated by memory, imagination, or the conscious control of physiological processes utilize the same neural system, and physical activity reinforces the manner in which the imagination stimulates emotions. Mirror neurons form a bridge between neuroscience and humanities, serving as a connecting point in social and emotional neuroscience [12].

3 Suzuki Tadashi's Concept of "Referencing Physicality" and the Suzuki Method

Within the framework of the Stanislavski's System, when an actor portrays a character in a prescribed situation, they must undergo real experiences. However, Suzuki Tadashi contends that a missing element in this practice is the requirement that the actor must utilize their imagination to construct a fictional space and sense the unique

sensations that being on stage brings. When performing, the actor is not going through an ordinary emotional or psychological experience. What the actor should feel is the excitement of being in the artificial environment of the stage, a specific state that Suzuki Tadashi refers to as "stage awareness" [2].

According to Suzuki Tadashi, Noh actors and Kabuki actors do not view acting as an expression originating from the heart in the traditional sense. Instead, they concentrate on cultivating specific kinds of bodily perceptions that cannot be directly traced back to ordinary daily life and applying those bodily perceptions in their performances. Suzuki Tadashi holds the view that actors should "play with" the perceptions they acquire on stage. The physical movement itself provides the actor with access to inner feelings. Thus, the behavior he refers to on stage should be capable of triggering vivid bodily sensations. Suzuki Tadashi, in his book *Culture is the Body*, offers the following example: When a Noh performer slowly slides forward on stage with their feet, they are not depicting old age or illness in a straightforward manner. Rather, they are testing the internal state of their body triggered by this action. This action itself gives life to the character, and adding different costumes can enable the audience to imagine ghosts, undead, or other phenomena that do not exist in daily reality [2].

Suzuki Tadashi believes that the primary task of the contemporary actor is to materialize these bodily states, enabling the actor to create a sustainable body as an instrument. Based on this philosophy, he has developed a "grammar"of the body that actors can refer to during their performances. Through his proprietary training method, he enables the actor to reawaken the declining body perception in daily life and enhance the flexibility and sensitivity required for perception. This makes actors' bodies more flexible and explosive and ultimately restores their original animal energy. "Energy, oxygen, and center of gravity" are the bodily functions that Suzuki Tadashi believes a person must master to meet their daily needs, and they are also the foundation for all physical and vocal training in performances.

Suzuki Tadashi places particular emphasis on the "feet" part. This is because he believes that the communication between the body and the ground will endow the body with a deeper perception of all the physical junctions of the body [13]. Consequently, many of the exercises in the training method are related to the actor's lower body and the "feet" portion of the body. The core of the training is for the actor to focus on the lower body. He holds the view that "the basic physical sensibility of any stage actor depends on his feet [13]." Suzuki's training explores freedom within stylized physical structures and teaches actors to effectively enliven set physical structures [14].

In April 2024, I was selected in the Suzuki Method Actor Training Camp in Wujiangzhai, China, and have been trained some fundamental exercises. What follows is a brief account of the main content.

(i) Stomping: Engaging in a walking pattern with alternating steps. Ensure that the legs are kept together, the arms are down, and the knees are slightly bent. Maintain the upper body in a stable and relaxed state, look straight ahead, bend the knees and lift the thighs to 90 degrees. As the feet take turns stepping onto the ground, the center of gravity shifts forward.

(ii) Slow Tenteketen: Proceeding with a uniform pace of walking. The main leg is slightly flexed, the other foot is hooked forward outside the leg, and the knee of the front leg becomes fully straight when the heel makes contact with the ground. The heel, arch, and forefoot sequentially roll onto the ground, fulfilling the transition of the center of gravity from the rear to the front. Sustain the horizontal elevation of the body throughout the process. Arm motions are arranged in accordance with the level of difficulty of the exercise.

(iii) Basic 1&2&3: Three assemblages of diverse center of gravity movements, encompassing respectively the horizontal movement of the center of gravity forwards and backwards, the horizontal movement of the center of gravity left and right, the vertical up and down movement, and the diagonal spiral movement.

(iv) Statue: Concentrates on body speed, pauses, and explosiveness. It is not only for the reinforcement of body control but also for voice and line training. Daily training is divided into "Statue" and "Sitting Statue". Upon command, the core is rapidly tightened and the limbs assume any shape.

(v) Walking: There are a total of 11 distinct steps. For the initial exercises, step-by-step music is typically used to assist the actors in digesting the movements, and after the steps have been mastered, slow-walking music will be employed to train the actors once the speed has been doubled.

(vi) Presley: Named after Elvis Presley's popular music, the fundamental form of this exercise is similar to the side step in "Basic 1" and "Walking" with subtle variations in a total of 4 changes of direction. As the training intensifies, so do the demands on the performers.

There are more in-depth discussions regarding the overall training method in numerous works on the Suzuki Method, which will not be reiterated in this study. However, it is not hard to discern that the most prominent characteristic of the Suzuki training method is to amass energy from the "feet" and trigger the most instinctive bodily perception.

4 Physiological Mechanisms of the Suzuki Method

4.1 Body-to-Brain Information Transmission

Neuroscientist Antonio Damasio is a prominent figure in the realm of neuroscience research, pioneering the body-map-based perspective. In his book *The Feeling of What Happens*, Damasio investigates the nature of consciousness and emotions. Damasio's research reveals that the feeling of emotion actually hinges on the physical symptoms. Muscle and joint signals are transmitted from the body to the brain, and endocrine and other chemical signals also reach the central nervous system through the bloodstream and other pathways. "All emotions use the body as their theater (internal milieu, visceral, vestibular and musculoskeletal systems), but emotions also impact the mode of operation of numerous brain circuits [11]." It is evident from Damasio's research that physiological indicators are sensory stimulators in many emotions, and thus physical activity can stimulate emotional experiences.

The Suzuki Method of Actor Training places particular emphasis on the feet. The actor's feet stomp and beat the ground, creating a "muscular confrontation" that awakens the body's internal senses. When the actor consciously uses external movements to train themselves, such as altering the rate and rhythm of breathing, modifying muscle tone, and adjusting body posture, they are in fact reconstructing the connection between movement and the inner world.

During the Suzuki Method Actor Training Camp, the teacher leads the students through the exercises repeatedly. This not only enables actors to become more familiar with and adaptable to the training method but also continuously reawakens the actor's body awareness through constant practice, allowing them to repeatedly receive body markings, establish muscle memory, and enhance physical sensitivity. Repetitions also enable the actor to transform non-routine movements into subconscious behaviors on stage.

Similarly, different body perceptions give rise to different inner feelings, and the polarity of the movement intensifies them. For instance, when I perform the "Statue" exercise in the training camp, which requires us to assume a random standing posture upon hearing the command, I quickly stand upright on tiptoes with my eyes looking straight ahead. At the same time, one of my hands is pushed out straight with the palm facing forward and the other hand is clenched into a fist in front of my chest. This extremely extended body posture makes me feel like a kung fu master, evoking a strong sense of majesty and confidence.

The Suzuki Method of Actor Training functions on the basis of the physiological mechanism of body perception formation. When the actor's body is engaged in the control of limbs and the movement of the center of gravity, as well as the regulation of energy, breathing, etc., the sensory signals generated by the body under the stimulation of these information sources are transmitted to the central nervous system of the brain through different pathways, and finally produce real feelings.

4.2 Mirror Neuron Engagement in a Fictional Space

Cognitive science has demonstrated that imagination is also a characteristic of cognition, intertwined with numerous mental processes. And similar to other types of thinking, imagination is connected to bodily processes. The most recent explanation in cognitive science is termed the simulation theory, which incorporates the activity of mirror neurons. Neuroscientist Vittorio Gallese et al. employed fMRI studies in macaque monkeys and discovered that observing a goal-directed action executed by others and actually executing it utilized the same set of neurons, which is known as "mirror neurons" [15]. Thus, they concluded that imagination is a form of simulation that employs many of the same neurons as the actual action. Cognitive scientist George Lakoff, in conjunction with Gallese, suggests that "Imagination, like perception and action, is embodied, that is, constructed by our constant contact and interaction with the world through our bodies and brains [16]."

As previously mentioned, Suzuki Tadashi emphasized that actors must utilize their imagination to create a fictional space and experience the unique emotions of being on stage. In the activity of mirror systems, actors employ their imagination to repro-

duce the sensations of their bodies. Hence, it can be aptly explained that this fictional space constructed through imagination is a space that can infuse vitality into the actors' physical senses.

Suzuki Tadashi would divide the actors into two groups, A and B, and have them take turns on stage during training. This is not simply a process for the trainees to complement each other's strengths and learn from one another via observation. Through the neuronal mirror mechanism, on one hand, the trainees acting as spectators offstage could perceive the stimulation offered by the trainees being trained onstage. By imagining themselves training on stage, they re-enact the physical sensations once more. This is also the cause for why I had the same feeling as if I were practicing on the stage even when I witnessed other groups conducting training during the training period. On the other hand, the actors on stage had a more pronounced sense of being watched, and imagining themselves in the eyes of others augmented the physical sensation.

The verbal instruction regarding the movements executed by the movement system empowers the participants to formulate their own imagined contexts. In the advanced "Slow Tenteketen" exercise, the actors are presented with diverse contexts. For example, a pair of actors will walk slowly as a duo of "killers" facing one another. The instructor will prompt the actors to contemplate: Who they are? What sort of mood they are in? How they are going to "kill" the other person and who will ultimately fall? What was their mood at the instant of the fall? And so forth. The actor constructs imaginary scenarios and opens the body to perception.

Therefore, the Suzuki Method comprises not only physical technique but also the capacity of the physical sensations generated by the sequence of movements to stimulate the actor's internal imagination and broaden the actor's perception of the character, which is the authentic avenue to acting.

5 Discussion

The present research concentrates on the physiological mechanisms of Suzuki Method to clarify whether physical activity has an influence on the inner world, particularly on perception and emotional states. The study is also based on the assumption in embodied cognitive science that physical movement affects psychological experience. The discovery of mirror neurons also provides a neurobiological explanation for what Suzuki Tadashi refers to as the missing critical step in the process of transformation from physical experience to emotional expression. The imaginative work to create a fictional space may involves a mental simulation of the physical experience.

This study contends that actor movement training, often described as body-centered, does not necessarily neglect so-called mental activities. On the contrary, actor movement training heightens the actor's physical perception and stimulates the inner imagination to acquire an abundance of emotion, thus creating delicate performances in both behavioral and verbal expressions. Similarly, acting training that focuses on mental processes necessarily involves physical processes. For a long time, many people have believed that the brain contains all of a person's potential. But the

greatest characteristic of the performing arts is that often actors' intuition is stronger than their logical thinking. Actual performance experience informs us that the inspiration or intuitive physical perception naturally generated by actors is the key to impressing the audience.

Thus, integrating a physiological-psychological perspective helps in uncovering the importance of the Suzuki Method in the performance creation process and offers a more robust foundation for the actor training. Overall, acting remains an unexplored territory in the realm of psychology. In accordance with what Suzuki Tadashi refers to as the missing key step, the actor utilizes their imagination to construct a fictional space and to experience the unique sensation that stems from being on stage alone. It is the area of interdisciplinary research between acting and psychology that holds the most significant potential for elucidating the general mechanisms of body-mind relationship in actors. In future research, more empirical studies can be considered with the aid of brain science and neuroscience research instruments and tools to further clarify and explain this mechanism from a scientific viewpoint.

6 Conclusion

The Suzuki Method of Actor Training was developed by Suzuki Tadashi, founded on the principles inherent in traditional Japanese theatre, like Noh and Kabuki, and centred around the study of the actor's body and energy, with the objective of assisting the actor in regaining his physical sensation and applying them in performance. The ultimate aim is to create what is unattainable in everyday life. The Suzuki method rectified the issue that realist acting, based on the Stanislavski's System, did not suit dramas such as ancient Greek tragedy. By analyzing the physiological psychology of the Suzuki Method, we have discovered scientific theoretical support for the relationship between body and mind in the Suzuki Method. The Suzuki Method's capacity to heighten the actor's physical perception and to foster the embodied actor are its most distinctive characteristics and significant contributions to the performing arts.

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