A Totally Subjective Perception of Art: How Could Neuroscience Make Sense of it?

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About the Study

Cognitivist philosophy of art recognises only those interpretations of dance that can be verbalised in analytical language and agreed upon intersubjective. However, there are times when balletomanes remain indifferent to the strong feelings reported by their fellows. Phenomenology-inspired dance theorists also have great pains to describe and explain what they see and feel and why their feelings should have been accepted as the meaning of the ballet. Sometimes we cannot explain even for myself what the exact reason of the feeling is and whether it is worth interpreting as a sign communicated by the dancer. Probably in this case, we are dealing with moods rather than emotions. Emotions represent intense, short-lived and conscious affective states; typically, they have a salient cause and cognitive content, that is, information about antecedents, expectations and behavioural plans. Moods are low-intensity, diffuse and enduring affective states with no salient cause and cognitive content. In other words, we do not know what the mood is about. It is not easy to share the personal impressions with fellow spectators and to reach an intersubjective agreement on interpretation of the characters and the plot.

The first option is the activation of autobiographical memory by visual stimuli: A random gesture of the dancer calls to mind a subjectively important event engendering the associated pleasing or displeasing feeling. Autobiographical memory is a subtype of episodic memory formed by the hippocampus. The formation of episodic memory is an associative process that binds some elements of an event into a cohesive memory episode or pattern. The function is performed by a CA3 hippocampal region. During retrieval, CA3 can treat a newly perceived stimulus as part of the existing pattern and use it as a cue to retrieve an associated element, thus completing the entire pattern of the remembered event. Associations can be formed between elements of a given event, different events, or a given event and its context [1]. In other words, cues that partially match the existing pattern help retrieve the remembered event. The CA3 may treat an arbitrary gesture of the dancer as an iconic cue bridging the dance with an event experienced by the spectator in a similar context. The hippocampus is connected to the amygdala that evaluates the emotional significance of the retrieved event [2-5]. A normal function of emotion is to enhance memory, to improve the recall of experiences that are important or relevant to our lives. Since episodic memory overlaps partly with autobiographical memory, gesture can induce associations with the viewer's idiosyncratic experience, giving rise to introspective reflections that the spectator projects on the scenic character. Peirce's definition of sign makes such a subjective semiosis possible. 'A sign, or representamen, is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign or perhaps a more developed sign. That sign which it creates we call the interpretant of the first sign. The sign stands for something, its object. It stands for that object, not in all respects, but in reference to a sort of idea, which I have sometimes called the ground of the representamen. It is not necessarily that other balletomanes understand the ground in a similar way; therefore, someone's introspection cannot be accepted as a reasonable interpretation of the scenic character. Beyond that, the spectator's rapid affective response suggests only the subjective significance of a random gesture, but it is not necessarily that the past event will be recalled without delay on a conscious level [6-9].

Since memories consolidated by the hippocampus are explicit, sooner or later the event in question can be retrieved from episodic memory and integrated into a subjective interpretation of the performance. In early childhood, the hippocampus is undergoing a continuous development process and cannot record the events that occur at this age. The relationship with parents that unfolds as struggles for love, safety, and survival is stored in the amygdala as emotional imprints that resist verbalisation [10-13]. In psychotherapy, transference explicates these memories as the client redirects her unconscious feelings and desires for another person to a different person. Dancers expressing emotions overtly are good targets for transference. The spectator can go through the events of early childhood while remaining ignorant of the cause and true meaning of the experienced affective state [14]. Most of the properties of classical ballet librettos come from myths, legends and fairy tales that address the problems of establishing primary relationships with significant others. Scenic action can resonate with the

spectator's childhood emotional experience, causing various moods [15-17].

Another kind of mental state might be generated by the Mirror Neurones System (MNS). A specific feature of this group of neurones is that they activate while observing the behaviour of others and executing the same behaviour. The location of perception and action at the single cell level allows the MNS to transform sensory representations of bodily motion of others into one's own motor or visceromotor representations of that motion; thus, the MNS is involved in understanding action and emotion. The empathy mechanism brings about a similar cognitive result. What is especially interesting about the mirror system is the representation of perceived movement in a true motor format which the observer's motor system regards as its own real movement. This feature of mirror neurones underpins the ability to imitate and learn the observed movement. During some ballet performances, we describe a rarely unusual feeling of my body as if we were imitating the movements of dancers. The empirical research of ballet dancers learning new movements demonstrates that mirror system activity depends on possessing the motor representation for an observed action and not only on the visual knowledge of what is observed. I would speculate that a sort of motor representation is possible among ballet-goers possessing no experience of the observed ballet movement as such [18].

Conclusion

The self-evaluation of early childhood and episodic memory and of mirroring movements is only a hypothetical assumption deduced from the theoretical literature. Upon studying the ballet audience, dance scholars should not concentrate on intersubjective interpretations based on the respondent's semantic memory of shared cultural knowledge, but encourage introspection and self-reflection that involve the respondent's autobiographical memory and perception of her body.

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