Gestures, reasoning, mathematics

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Abstract

Invited Pragma Panel organized by G. Maddalena
In modern and contemporary epochs, gestures have often been understood as a kind of primitive pseudo-language, which is supposed to express inner thoughts or feeling (Kendon 2004).

This classic conception has been increasingly called into question during the years. George Herbert Mead's theory of gestures represents a crucial step towards the overcoming of this narrow mainstream understanding of gestures. According to Mead, meaning arises from a conversation of gestures, in which the participants are able to take the attitude of the others by anticipating the responses which are supposed to be elicited by their stimulations (Mead 1934). In this way, gestures are not the mere medium of expression of inner states. Rather, meaning is something which takes place into the conversation of gestures. This entails that we understand by communicating, rather than communicating thanks to a prior inner understanding.

However, Mead's radical perspective is weakened by his difficulty in overcoming the classical understanding of gestures as the primitive ancestors of symbolic and verbal language. This incomplete pragmatist revolution may be fulfilled by showing how gestures are the bedrock of ordinary, scientific, and philosophical reasoning. In particular, the role of gestures and actions in mathematics, as suggested by the French philosophy of mathematics, reveals new and uberous possibilities of reasoning, capable of overtaking the analytic rationalist pattern.

This panel aims at developing this perspective, by focusing on the theoretical consequences produced by this understanding of the relations between gestures and reasoning, in all its forms, starting from mathematics. Particularly, the mainstream definition of some crucial concepts - such as synthetic, inner/outer, meaning, behavior – seem to be challenged by the proposed approach. Also, the crucial role ascribed to actions and gestures pose some relevant theoretical questions that have to be tackled: what is the role played by intentionality in gestural reasoning? Do mental states still play a role in the construction and the understanding of meaning? What are the ontology, the epistemology, and the metaphysics that stem from this pattern based on meaningful actions?

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Participants:

Giovanni Maddalena (University of Molise), "Complete gestures between aesthetics and mathematics"

Christiane Chauviré (University of Paris 1, Sorbonne) "Peirce and Wittgenstein on mathematical demonstration"

Giuseppe Longo (École Normale Supérieure), "The use of 'geometric judgments' as meaningful gestures in space and time in the proofs of recent unprovable propositions of Arithmetic"
Matteo Santarelli (University of Molise), "Completing gestures: a new way of understanding psychoanalytic theory?"

Keywords: gesture, mathematics, Peirce