

## **GIACOMO RIZZOLATTI**

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Head of the Brain Center for Motor and Social Cognition of the Italia Institute of Technology (IIT) and Professor Emeritus of Human Physiology at University of Parma. The main focus of his research concerns the motor system and its role in cognitive functions. He is the discoverer of the mirror neurons. He is Member of Academia Europaea, of Accademia dei Lincei, of the Institute de France (Académie des Sciences), and Honorary Foreign Member of the American Academy of Arts and Sciences and Foreign Member of National Academy of Science (USA).

He received many awards among which the most recent are: "Feltrinelli Prize for Medicine" of Accademia dei Lincei, Prix IPSEN, Neuroplasticity, the Grawemeyer Award for Psychology, Prix Signoret, Neuropsychology, Fondation IPSEN and the Brain Prize from Lundbeck Foundation. He received Honorary Degrees from the University Claude Bernard of Lyon, from the University of St. Petersburg, St. Petersburg, from the University of Sassari and from KU Leuven.

### **From mirror neurons to the “mirror brain”**

Mirror mechanism is a basic mechanism that transforms sensory representations into a motor format. In the first part of my talk I will describe the functions of the mirror mechanism that is located in the parieto-frontal network of the macaque monkey. I will present then human data on the same network discussing the specific way in which the mirror mechanism enables us to understand others. This mechanism mediates what Corrado Sinigaglia and I named “understanding others from the inside”. In the third part of my talk I will discuss the role of the mirror mechanism in understanding the basic Darwinian emotions and the action styles, e.g., those aspects of the actions that Daniel Stern called “vitality forms”. I will conclude discussing the social consequence of impairments, due to cultural factors, of the mirror mechanism.