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Does neuroeconomics really need the brain? (Book Chapter)

Maldonato, N.M., Sicca, L.M., Esposito, A.M., Sperandeo, R.

[a]Dipartimento di Neuroscienze e Scienze Riproduttive ed Odontostomatologiche, Università di Napoli Federico II, Naples, Italy
[b]Dipartimento di Economia, Management, Istituzioni, Università degli Studi di Napoli Federico II, Naples, Italy
[c]Istituto nazionale di Geofisica e Vulcanologia, Sezione di Napoli, Osservatorio Vesuviano, Naples, Italy

View additional affiliations

Abstract

The systematic study of biological basis of behavior and of the process involved in economical choices has outlined a new paradigm of research: neuroeconomics. Now the intersection between neuroscience, psychology and economics, neuroeconomics presents itself as an alternative to the neoclassical vision on economics, according to which the homo oeconomicus acts within the bonds of a formalizing rationality tending to the maximization of the anticipated utility. Brain imagining methods have shown that the decision-making processes activate the frontal lobe and the limbic system above all, a big circonvolution running through the callous body on the medial surface of the hemispheres, extending itself down, responsible for the regulation of emotional phenomena. Reinforcing such a tendency, we find the injury paradigm. It was observed that frontal lobe injuries harm the capacity of making advantageous decisions either in one's own behalf or in others, as well as decisions according to the social conventions. In this paper, we will try to show that if, by the one hand, the neuro visual methods have given us a great amount of data, on the other hand, using them uncritically, with the recurrent confusion between "correlation" and "causal relation"—contemporary microevents indicate only simple correlations, and no cause-effect relation—risks to stress the relevant explanatory gap regarding the abstract ideal of understanding the nature of the brain. © Springer International Publishing AG, part of Springer Nature 2019.

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Maldonato, N.M.; Dipartimento di Neuroscienze e Scienze Riproduttive ed Odontostomatologiche, Università di Napoli Federico II, Naples, Italy;