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Stephen J. Gould's Legacy: Nature, History, Society

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*The Gould effect.
Neoteny, exaptation and human sciences*

Abstract

The aim of our work is to analyze the «effects», more or less expected, that the neotenic conception of human nature, proposed by Gould in *Ontogeny and phylogeny*, produced and may still have on the human sciences. Showing that man is a primate characterized by a developmental heterochrony – a primate who «was born a year too early» and that «overexposes» his plastic and premature brain to a social and natural environment for a very long period of development – Gould has opened the way for a whole series of cognitive and neurobiological consequences, psychological and linguistic, anthropological and philosophical of which we have not yet taken full measure. As it has been done on the basis of Gould's theories by many scientists, the human brain – because of its high neotenic plasticity – can be considered as an extremely powerful device for the refunctionalization (*exaptation*) of preexisting biological structures, for purposes other than those selected by evolution. However, it is also possible to show that humans can compensate for the disadvantages caused by this neotenic condition only by establishing a communicative relationship with himself and with the world.

Through this communicative relationship, the eye and the hand, ear and voice come to entertain synesthetic intersensory relations, unavailable to any other animal, which the unusual structure of metaphorical human experience and the propositional structure of the human *logos* are based on. It follows a conception of human experience that transcends the traditional distinctions between *Naturwissenschaften* and *Kulturwissenschaften*, and that sheds new light on the condition of man in our times.