

IN MEMORIAM

In memoriam Jacques Gervet (1934–2018)

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Jacques Gervet died on December 5th, 2018 at the age of 84. His research activity began in 1954 at the “Laboratoire d’Évolution des Êtres Organisés” in Paris chaired by Pierre-Paul Grassé. Then, in the early 1960s, he moved to Marseille when the Institute of Neurophysiology and Psychophysiology was founded and joined the Department of Animal Behaviour. In 1965, he defended a PhD thesis on the regulation of egg laying in polygyne societies of *Polistes gallicus* (Gervet 1965). After leading the team “Ontogenesis of behaviour and social life” within the Group of Laboratories of Marseille as a CNRS research director from 1985 to 1994, he joined the Laboratory of Ethology and Animal Psychology in Toulouse until his retirement in 2000. Throughout his scientific career, with his many students and collaborators, Jacques Gervet developed two main lines of research using the solitary wasp *Podalonia hirsuta* Scopoli and the social wasp *Polistes dominulus* as model organisms. His first

line of research focused on the study of instinctive complex behaviors such as nest building in *Polistes* or the epigenesis of the stinging sequence during the paralysis of prey and nesting cycle in the digger wasp. The second line focused on the quantitative analysis of interactions between individuals in *Polistes* wasps and their role on “group effect” (as defined by Grassé 1946) and in the self-organization of collective behaviors (such as hierarchy and division of labor). He also re-visited the criteria used to classify social phenomena in biological systems (Gervet 1968). He has supervised five PhD theses including those of two of us, Michel Pratte in 1979 and Guy Theraulaz in 1991.

During his whole career, Jacques Gervet showed a deep interest in the epistemological problems raised by the study of animal behaviour. He addressed in his work the notions of “system” and “level of integration”, and part of his research was devoted to the study of the animal’s representation of the world (such as Jakob von Uexküll’s theory of the animal’s Umwelt). He also worked on the evolutionary steps that led to the emergence of intentional processes in animals. In the field of the evolution of living systems, he made a strong criticism of sociobiology and “Social Darwinism”. He emphasized the existence of non-genetic modes of transmission of behaviour (environmental, proto-cultural), which made it possible to discuss a Darwinian model of the hominization process that did not require any war between individuals or between lineages. He contributed to several books on these topics such as *Misère de la sociobiologie* (1985), *La représentation animale* (1992) and *Éléments d’éthologie cognitive* (1999). After his retirement, he still had an active intellectual life and worked on topics unrelated to his scientific activities. In particular, he published two books dealing with the difficult relationship between Catholicism and the contemporary atheist humanisms, namely the Marxism, the Freudianism and the scientific Rationalism (Gervet 2014; 2016).

Jacques Gervet was a brilliant, open-minded and inspiring humanist thinker. His intellectual rigor, his tireless curiosity, and also his deep generosity will continue to be present in

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the minds of those who, like us, had the chance to share with him many years of enthusiastic work.

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