

Mario Zanforlin

(1934-2016)



Mario Zanforlin, Emeritus Professor at the University of Padua, died in Asiago (Vicenza), on August 12, at the age of 81. He had been Professor of Experimental and Comparative Psychology at the University of Padua from 1969 until his retirement in 2007. He was one of the most important representatives of Italian Gestalt Psychology.

Zanforlin carried out his graduate studies at the University of Padua (he discussed a thesis in Experimental Psychology, with Fabio Metelli as advisor). After graduation, he spent a period as Assistant Professor at the Advanced Institute for Social Sciences in Trento, and then he set out to Edinburgh where he studied ethology and animal behaviour under the supervision of Aubrey Manning. Zanforlin received his PhD in 1968 with a thesis on the “Inhibition of responses to light during pre-pupation behaviour in larvae of the fly, *Sarcophaga barbata*”. He returned to the University of Padua in 1969 as Assistant Professor and was promoted to Full Professor in Animal and Comparative Psychology in 1975. Zanforlin served as Head of the Institute of Experimental Psychology at the University of Padua from 1973 to 1976. He was Visiting Professor at Cornell University, and presented at conferences at universities and research centres in Marseille, Rennes, Cambridge, Oxford, St Andrews, Louvain-la-Neuve, Regensburg, Uppsala, Budapest and the Max-Planck-Institut für biologische Kybernetik of Tübingen, among others. He retired in 2007 and became Professor Emeritus at the Department of General Psychology of the University of Padua.

Zanforlin had been one of the founding members of the Italian Society of Ethology (of which he had also been president), and was member of the Association for the Study of Animal Behaviour (ASAB), the Accademia dei Concordi in Rovigo, and the prestigious Accademia Galileiana di Scienze Lettere ed Arti of Padua, founded in 1599, and was honorary member of the International Society for Gestalt Theory and its Applications (GTA).



Mario Zanforlin and Gerhard Stemberger, then president of the board of Directors of the GTA, on the occasion of granting the Honorary Membership of the GTA to Mario Zanforlin. at the 15th international scientific GTA conference, held in Macerata, Italy.

Zanforlin focused his research on comparative psychology and psychology of perception, with a double theoretical perspective that comes from two different scientific traditions.

The first theoretical perspective comes from studies in Edinburgh under the ethologist Aubrey Manning, a second-generation ethologist and a direct pupil of Nikolaas Tinbergen. In this scientific context, Zanforlin initiated a long-lasting line of research on animal cognitive systems that was soon to be developed in Italy by and with his pupils. A prospective research of human perception led Zanforlin to enquire into non-human species and, to begin with, into the phylogeny of animal perceptual systems. Thus, the initial experimental investigations concerned orienting mechanisms in invertebrates and vertebrates, and the perceptual mechanisms involved in the landing reaction of the fly. Zanforlin's other main interest in comparative psychology – visual illusion – brought him to demonstrate for the first time that non-human species, such as fowl, perceive illusory figures such

as Kanizsa's subjective contours. Theoretical stances on cognitive system from a comparative perspective in human and non-human species often claim that cognitive mechanisms are also a consequence of a finalistic-mechanistic evolution, but Zanforlin made a significant contribution in this regard by integrating the non-genetic theory of the Gestaltists.

The second theoretical perspective derives from the Paduan tradition of experimental psychology. The study of experimental psychology was started in Padua by Vittorio Benussi (a pupil of Alexius von Meinong), who taught Cesare Musatti, who then taught Metelli, who in turn taught Zanforlin. The influence of Metelli on his pupil is apparent in Zanforlin's use of mathematical models to study visual perception. In this regard, we are reminded of the research on Reichardt's detectors for first-order motion perception, in the early Eighties. Another relevant field of his research was stereopsis in human perception and, also in the Eighties, stereokinetic phenomena (e.g. when a disc is set in slow rotation and a circle with an eccentric dot inside it painted on the disc, it appears as a three-dimensional cone). This topic of research connected him to the original Paduan tradition of experimental psychology. Indeed, stereokinetic phenomena were discovered and initially studied by Benussi, and investigated by Musatti from the Twenties on. Zanforlin proposed a new theory, explaining why the visual system organizes the three-dimensional structure from two-dimensional patterns in motion, based on the "minimum principle" applied to the relative velocity differences between the points of the rotating pattern. This explanation also allows a quantitative prediction of the stereokinetic cone height.

The historical link with Gestalt psychology was also reaffirmed in 2004, when Zanforlin organized a meeting at the University of Padua on "The recent developments of Gestalt theory in Italy". The papers were later published as a three-volume collection of the Italian journal *Teorie & Modelli*.

Zanforlin published more than 100 papers on many other subjects, such as spatial and object learning, visual illusions, etc. and it is difficult and reductive to summarize such a rich and articulate scientific career. However, we can easily affirm that he has left a great scientific legacy, through his teaching, his many research lines, and his many pupils (among them Giorgio Vallortigara, who wrote the *Laudatio* on the occasion of Zanforlin's 80th birthday, in this journal in 2014). And it is because of him we can say that Gestalt theory in Italy is still alive.

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