



## In memory of Francesca Frassinetti (1967–2023)

Annamaria Berti<sup>1</sup>

Accepted: 15 March 2023 / Published online: 31 March 2023

© The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature 2023



Francesca Frassinetti, who worked as an associate editor, reviewer and author at Experimental Brain Research, died in a tragic car accident on 6 February 2023. She leaves behind her husband and two beloved sons. Francesca, who was born in Castelnovo ne' Monti (1967) near Reggio Emilia (Italy), graduated from Medicine at the University of Parma (1993), specialised in Neurology at the University of Modena (1997) and obtained her doctorate in Psychology at the University of Bologna (2003) where she became a full professor in Psychobiology and Physiological Psychology. Since her medical degree, Francesca had directed her interests to the study of the effects of brain lesions on behaviour especially in relation to neuropsychological deficits and their neurophysiological and structural counterpart. From her first studies on impairments of spatial awareness, Francesca more recently focussed her interests on the structure and function of interpersonal space, exploring the different components of action space and social space in an original and innovative way,

stimulating researchers in this area. Francesca's investigations on these topics represents fundamental points of reference for constructing hypotheses and models on the representation of space and for understanding the interaction between the space around us and the affective and private components of social relations.

Another field of research in which Francesca made crucial contributions is that of body ownership. In particular, her great experimental and clinical insight led her to discover new ways of assessing the explicit and implicit aspects of body parts recognition and attribution, employing both behavioural and psychophysiological paradigms. She discovered that the facilitation in discriminating self versus other people's body parts, named body self-advantage, which was found in implicit, but not in explicit tasks, relies upon a sensorimotor, rather than a mere pictorial representation of one's own body. These findings gave a fundamental contribution to the definition of implicit and explicit dissociation in the elaboration of both external and body space events. The study of spatial representations could not but inspire Francesca to study temporal representations, and her many publications on this topic are milestones in this field as well. First, she studied how people perceive time and how time perception is constructed in our brain. As a neuropsychologist, she investigated time perception in patients with neglect, on the assumption that if space representation is affected in the contralesional hemisphere, time might be affected as well. More recently, using a variety of approaches, Francesca started to explore our ability to project ourselves into the past and future time, making fascinating discoveries on what is now called mental time travel. She explored different methods such as prism adaptation, to modulate space, body and time representations, in ways that could be used to improve function for brain-damaged patients. She published many well-cited articles on this subject, which indicated that her work resonated with the scientific community and will undoubtedly have a lasting impact.

For many of us, Francesca was an irreplaceable colleague and collaborator, intelligent and lively, determined and

✉ Annamaria Berti  
annamaria.berti@unito.it

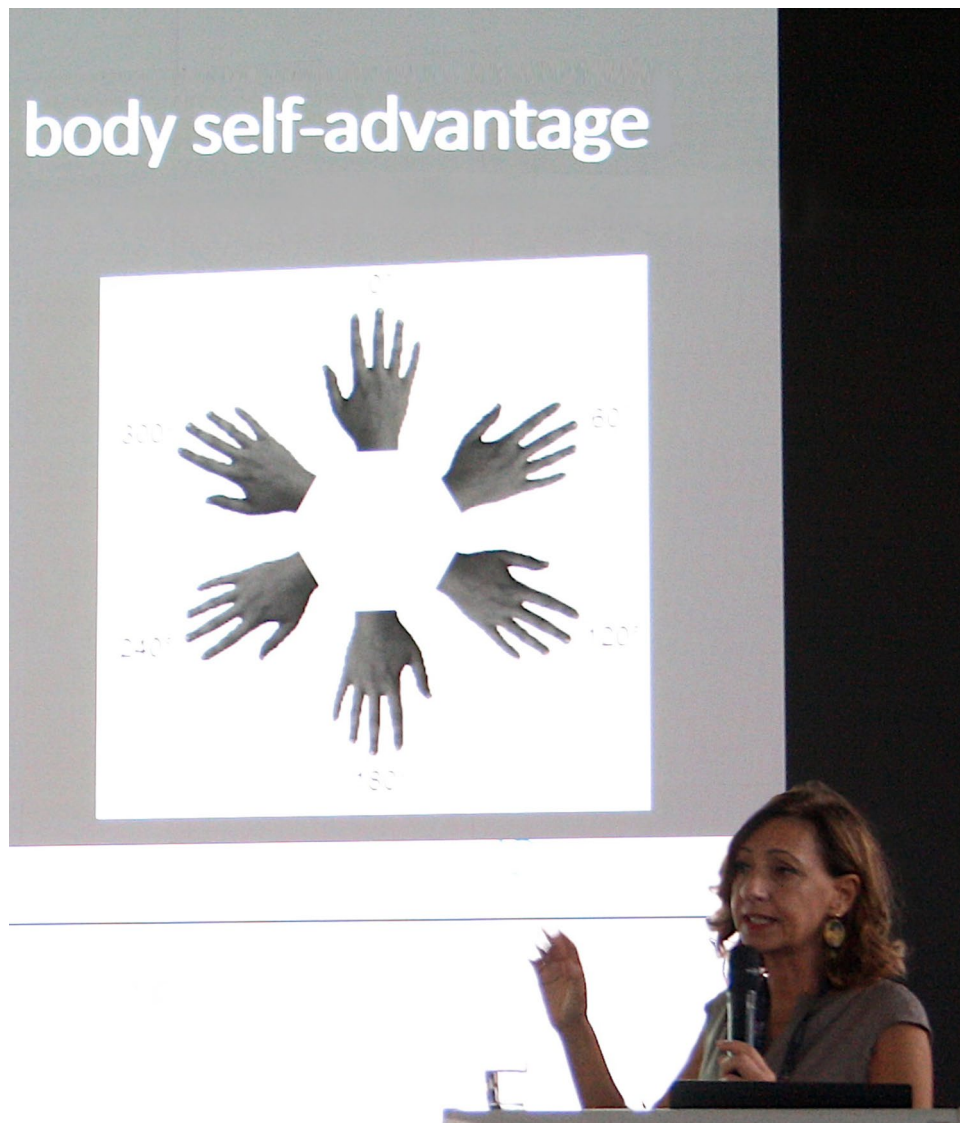
<sup>1</sup> Department of Psychology, University of Turin (Università degli Studi di Torino), Turin, Italy

encouraging. It was a real privilege to work with her. She had the ability to convey confidence about the possibility of fruitful scientific collaborations and easily communicated her enthusiasm for a new study or a research project. Her successful research group in Bologna, made up of talented young PhD students, post-docs and researchers, will miss her far-sighted and firm, yet gentle and empathetic leadership, which led them not only to important publications but also to numerous national and international collaborations. Both the colleagues and the young scholars who trained with her appreciated her kindness and humanity. Especially, the students will miss a helpful, supportive mentor and an enlightened, knowledgeable teacher. Moreover, her desire to be useful to the community in general, and to the university in particular, engaged her in many activities, including participation in the department's governing bodies. Among other commitments, she had been Head of the Master degree in Neuroscience and Neuropsychological Rehabilitation between 2014 and 2018, and a stable Faculty Member of the International PhD Program in Cognitive Neuroscience of the Department of Psychology of Bologna University.

For some of us, she was also a dear friend. We met many years ago at Giacomo Rizzolatti's Institute of Human Physiology at the University of Parma. Francesca was preparing her medical degree thesis while I was a young neurologist preparing my doctoral thesis. We had the opportunity to

work together on unilateral neglect, making exciting observations on implicit processing in neglect dyslexia. Already at that time, Francesca showed commitment to research, intuition and clinical sense that she would later combine with the competence of a scientist who was always willing to build knowledge, welcome the experiences of others and share her own with generosity and rigour.

I am pleased to think that one of Francesca's most cited articles contained research we did together. It was about the modulation of the representation of spaces through the use of a tool. I have fond memories of that period spent between Parma and Bologna, not only related to the professional aspects but also to the time and experience we shared with our families. Later, working in different and distant places, we mostly met at congresses or research meetings. One appointment we always tried to keep was the European Workshop of Cognitive Neuropsychology (EWCN) that takes place every January in Bressanone Italy—a regular meeting place for cognitive neuroscientists in our area. The last time I saw Francesca was in Bressanone this past January. We were both there with our children after years. One evening we took a beautiful walk through the old town along with our dogs (we also had in common two very sweet female dogs), chatting about science and life and enjoying that unique and unrepeatable moment. I will always remember Francesca like she was during that walk: Cheerful, gentle, affectionate in a cold clear night under the stars of a winter sky.



**Acknowledgements** I would like to thank Michela Candini, a precious collaborator and friend of Francesca, for some of the information included in the text. Photographs—I would like to thank Esteban Crespo (School of Health Sciences, University of Applied Sciences, Western Switzerland), Francesca Garbarini (Dept. of Psychology, University of Turin) and Giuseppe di Pellegrino (Dept. of Psychology, University of Bologna).

**Data availability** Not applicable.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.