

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

# Cognition

journal homepage: [www.elsevier.com/locate/cognit](http://www.elsevier.com/locate/cognit)

## Special Issue Editorial

### Special issue in honor of Jacques Mehler, Cognition's founding editor



This Special Issue honors our friend and colleague Jacques Mehler (1936–2020), its publication in August 2021 marking what would have been his 85th birthday. Jacques was a founder of much that we hold dear: our field, in which he took one of the very first PhDs and of which he was one of the earliest practitioners, and this journal, *Cognition*, of which he was the first editor, from its initial issue in 1975 until 2007.

Jacques began in science as a student of chemistry, in Argentina where he grew up, and in the UK; his PhD with George Miller at Harvard in 1964 brought him into the nascent cognitive revolution. From the US he moved to Paris to set up his own first laboratory. He found the intellectual climate there in general receptive to the new ideas of studying the human mind using techniques of the sciences, even from multiple disciplines. The publication landscape, however, was not yet in line with these developments. Jacques wrote an account of those early days as an editorial for *Cognition's* Volume 50 (Mehler, 1994); the journals (nearly all American) of the field, he recounts, were inflexible in form and content, bound each to a single discipline, and ruled by positivist and behaviorist requirements. There was no role at all for debates of theory. It was thus clearly time for an outlet that was open to all that had been kept out. *Cognition*, once launched, became the prime outlet of the new field of cognitive sciences. (The story curtly summarized in this paragraph is recounted in much greater and juicier detail by another participant in *Cognition's* inception: Bever, this volume).

Across the field of cognition Jacques' own scientific contributions were also revolutionary, most particularly in that he and his many students effectively mapped the first year of human cognitive and linguistic development. Further research areas included social cognition, arithmetical processing, bilingual cognition, the psycholinguistic functions of rhythm and of vocalic versus consonantal sounds, and more. His research in Paris (the beginnings of which are described by Frauenfelder and Segui, this volume) was supported by the French national center for scientific research (CNRS) for three decades, until the axe of the compulsory retirement age fell in 2001.

At the International School for Advanced Studies (SISSA) in Trieste (Italy), headed by Jacques' long-time friend Daniele Amati, the retirement was seen as an opportunity that should not be allowed to pass by; Jacques was promptly invited to establish a language acquisition group at SISSA. This laboratory duly opened in 2001. It continued until mid-2016, when its final grant, in the European Research Council's advanced category, came to an end. Note that in the tradition of recent European funding, grants very often bear a name cleverly evoking the essence of the intended research. Perhaps it is no surprise that Jacques, with his career that took him from chemistry into the cognitive sciences, led his final research enterprise under the name of one of the greatest multidisciplinary of all time, PASCAL – here nominally standing for:

#### Processing Activates Specific Constraints for the Acquisition of Language.

The present Special Issue contains, in its first section, some extended descriptions of the Paris laboratory and its early work. The SISSA lab, in contrast, while very well represented by its ex-members among the Special Issue contributions (see Gervain, 2020), is not further portrayed. So, here we present an account of what the retirement lab of a dedicated researcher can be like. At SISSA, Jacques was lab director, with Marina Nespor (co-editor of this volume and co-author of this preface) providing leadership in linguistics. Grant funding, from a succession of European Research Council programs, from local Italian funding sources and, in the period 2003 to 2011, from the McDonnell Foundation (US), supported a stream of PhD students and postdocs. The Pascal Project alone, for instance, engaged six postdoctoral team members and further support staff (especially needed for the neonate laboratory). Central to lab life at that time was of course a lively weekly research meeting. But just as importantly, every Thursday evening the lab dined together in Jacques' and Marina's apartment, sited in the center of Trieste, with views both to the sea and to the mountains. Progress in the lab was discussed not only in the research meetings but also over dinner; life and work in the lab were integrated.

After the SISSA lab closed in 2016, and all the younger group members moved on to good positions, in many different parts of the world, they continued writing to each other and to the senior lab members about the progress of their work. That is to say: the family framework still held strong.

It is also noteworthy that invitations from different parts of the world, which of course are common in all successful academic lives, took Jacques in his SISSA years regularly back to South America. This included a Latin America School in Brazil and Chile, which Jacques and Marina attended every year.

Both of Jacques' labs and all of his research areas are represented in this Special Issue. The papers that follow thus reflect both the breadth and the depth of his contribution to the science of cognition. Participation in the Special Issue was by invitation, with the invitees including all of Jacques' PhD students, his postdocs and other colleagues with whom he had published papers and held research grants, and a range of his friends and debating partners in the (many and various) fields in which he worked. In the spirit of *Cognition's* early years, our invitation letter encouraged not only submissions reporting the results of laboratory research (which should be both groundbreaking and theoretically motivated, of course), or novel theory-building, but also opinion pieces, reviews and indeed whatever type of paper might have appeared in the journal's pages in those years (Gleitman & Gleitman, this volume, rose with verve to this latter challenge).

<https://doi.org/10.1016/j.cognition.2021.104786>

As the responses rolled in, we editors quickly realized that we had taken on no small task (around 90% of those invited indeed accepted). However, our fears that we might have to restrict the scope of the Special Issue proved unfounded, for which we are very grateful indeed to *Cognition's* publishers and to Chief Editor Tamara Swaab. The result is that you can now enjoy a collection containing no fewer than 45 contributions. Nearly all have been reviewed in the standard *Cognition* procedure, by two or more reviewers (a small few were handled – perhaps yet more rigorously – by the guest editorial group only). We express our deep thanks also to the nigh on 100 reviewers who in this manner helped make the issue so special.

The SI content falls into several categories. The largest includes most of the papers – all of those groundbreaking and theoretically motivated empirical and modeling contributions, in fact. These papers are based on data from infants, from children, and from adults (in quite similar proportions, as it happens. But there is also a paper about rats, and another basing its argument on chickens). Preceding the empirical and modeling papers, however, the SI content begins, after this preface, with three historical accounts: first, of how *Cognition* was conceived and eventually realized (Bever); second, of the many sides (and rollercoaster rides) of working on the journal (Franck); and third, of the aims and main concerns of the Paris lab in its early days (Frauenfelder & Segui). These in turn are followed by Gleitman and Gleitman's revival of early *Cognition's* serious deployment of whimsy in the service of science. A number of opinion pieces, review articles and models then lead on to the empirical reports.

We trust that the readership of the Special Issue will appreciate both its breadth and its depth. We the guest editorial team, after recovering from our initial astonishment at what we had taken on, have certainly enjoyed the opportunity to interact with Jacques' broad community of friends, students and colleagues, and greatly appreciated the depths of thought and scholarship that they presented us with. We know that all concerned with this collection will continue to miss Jacques' presence, in our researches and in our lives. We editors knew him in many ways: as partner (MN), as PhD advisor (JG), as collaborator (AC), and as co-board member of a multitude of advisory panels world-wide (RA) – and all of us of course as co-author (e.g., Aslin & Mehler, 2005; Gervain & Mehler, 2010; Mehler & Cutler, 1990; Mehler & Nespors, 2004). Our memories may include travels around the world with him (inducing radical

expansion of one's concept of what constitutes cognitive science, and how to think about learning and the brain), struggling together with him on the installation and interpretation issues of the novel NIRS technology (Gervain, Macagno, Cogoi, Peña, & Mehler, 2008), or joint research undertakings that revealed what collaborations can induce (Cutler, Norris, & Segui, 2020). Whatever it is, we will miss it all – his wide-ranging intellect, his mentoring, his openness to collaboration and to new undertakings, and without question his unparalleled *joie de vivre*. He was an inspiration to us all in many ways; his legacy will continue to be passed along and influence future generations of scholars.

## References

- Aslin, R. N., & Mehler, J. (2005). Near-infrared spectroscopy for functional studies of brain activity in human infants: Promise, prospects, and challenges. *Journal of Biomedical Optics*, 10(1), 11009. <https://doi.org/10.1117/1.1854672>.
- Cutler, A., Norris, D., & Segui, J. (2020). On collaboration. <https://cognitivesciencesociety.org/remembering-jacques-mehler/>.
- Gervain, J. (2020). The Mehler lab at SISSA. <https://phdcns.sissa.it/our-history>.
- Gervain, J., Macagno, F., Cogoi, S., Peña, M., & Mehler, J. (2008). The neonate brain detects speech structure. *Proceedings of the National Academy of Sciences of the United States of America*, 105(37), 14222–14227.
- Gervain, J., & Mehler, J. (2010). Speech perception and language acquisition in the first year of life. *Annual Review of Psychology*, 61, 191–218.
- Mehler, J. (1994). Editorial. *Cognition*, 50, 1–6.
- Mehler, J., & Cutler, A. (1990). Psycholinguistic implications of phonological diversity among languages. In M. Piattelli-Palmerini (Ed.), *I. Cognitive science in Europe. Golem, Monograph* (pp. 119–134).
- Mehler, J., & Nespors, M. (2004). Linguistic rhythm and the acquisition of language. In A. Belletti (Ed.), *Structures and beyond: Vol. 3: The cartography of syntactic structures* (pp. 213–221).

Anne Cutler<sup>a,\*</sup>, Richard N. Aslin<sup>b</sup>, Judit Gervain<sup>c,d</sup>, Marina Nespors<sup>e</sup>

<sup>a</sup> MARCS Institute, University of Western Sydney, Australia

<sup>b</sup> Haskins Laboratories, Yale University and University of Connecticut, USA

<sup>c</sup> Université de Paris and CNRS, Paris, France

<sup>d</sup> University of Padua, Padua, Italy

<sup>e</sup> Institute for Maternal and Child Health, IRCCS “Burlo Garofolo”, Trieste, Italy

\* Corresponding author.

E-mail address: [a.cutler@westernsydney.edu.au](mailto:a.cutler@westernsydney.edu.au) (A. Cutler).