Yves Chevallard in memoriam

Michèle Artigue, Marianna Bosch, Jean-Luc Dorier and Carl Winsløw

The educational community is in mourning. Yves Chevallard passed away on 16th March 2026. With him, we have lost the third pillar of what is often referred to as the French tradition of mathematics education, following Guy Brousseau and Gérard Vergnaud.

Born in Tunisia in 1946, Yves Chevallard spent his childhood near Marseille. After his studies at the École Normale Supérieure in Paris, he was recruited by the University of Aix-Marseille, where he soon began to take an interest in the teaching of mathematics. He met Guy Brousseau in the 1970s and became involved in Mathematics Education research, which was then in its infancy. He immediately embraced Guy Brousseau's project to establish the Didactics of Mathematics as a true science, with both its fundamental and applied dimensions, viewing it as an experimental epistemology of Mathematics. He quickly became one of the key figures in this development. From the very first summer school on the Didactics of Mathematics in 1980, he presented the foundations of what would become known as the Theory of Didactic Transposition, refusing to view the knowledge taught as mere simplifications of scholarly mathematical knowledge, and questioning the constraints to which it was subjected and the multiple transformations it underwent. This was a radically new vision at the time, contested by some mathematicians, but it quickly gained acceptance.

A few years later, in 1986, at the first Franco-German Symposium on the Didactics of Mathematics and Computer Science, in a paper entitled 'Outline of a formal theory of the didactic', he placed this initial approach within a broader perspective: that of an Anthropology of the Didactic. This marked the emergence of what is now known as the Anthropological Theory of the Didactic (ATD), used by a large number of researchers worldwide and recognised as a major theory in mathematics education. From then on, Yves worked tirelessly to develop this theory until his very last breath. This important work was recognised in 2009 with the prestigious Hans Freudenthal Medal from the ICMI, as well as three honorary doctorates from Liège University in Belgium (2010), the University of Córdoba in Argentina (2013), and the University of Santiago de Chile (2020). For more bibliographical details, we refer to Wozniak, Bosch & Artaud (2006).

The initial developments of the ATD in the 1990s were closely linked to Yves Chevallard's collaborations with French- and Spanish-speaking researchers through PhD courses and supervisions. The Marseille's group of teachers, teacher educators and researchers was quickly expanded to Barcelona and beyond, with tentacles in different universities in Spain, Argentina, Brazil, Chile and Mexico. The publication of the book "*Estudiar matemáticas: el eslabón perdido entre la enseñanza y el aprendizaje*", co-authored with Marianna Bosch and Josep Gascón, greatly contributed to this expansion. The fact that ATD conferences have alternate between Spain and France since 2005 demonstrates the transnational nature of the ATD research community.

Chevallard mastered the English language impeccably and was fluent in Spanish, but his native French was naturally closer to his heart. Indeed, most of his scientific works were published in French and are striking examples of the precision and stylistic beauty that this language lends

to science, literature, and philosophy. As mentioned, his ideas were rapidly disseminated in the Spanish-speaking world, which is linguistically close to the French one. In contrast, despite early efforts such as Kang and Kilpatrick (1992), Chevallard's ideas remained much less accessible to researchers restricted to English, until the publication of the highly cited paper by Barbé, Bosch, Espinoza and Gascón (2005). His plenary address at the 2005 CERME4 European conference, as well as the increasing international participation in the ATD congresses, shows that his work began to attract scholars from a wider range of countries. For instance, ATD basics have been compulsory content in the numerous master's and PhD courses in Didactics of Mathematics at the University of Copenhagen since 2004. Over 50 doctoral students from countries in Europe, the Americas and Asia have attended these courses, and many have adopted ATD elements in their work. Papers firmly grounded in the ATD have increasingly appeared in English-language conferences and journals. Consequently, Chevallard's research programme has grown far beyond the Francophone and Hispanophone spheres. Currently, strong teams of senior researchers working within the ATD can be found in countries such as Croatia, Canada, Denmark, Germany, Indonesia, Japan, Norway, the Philippines, Portugal, Sweden and Switzerland, to name but a few. The international visibility of Chevallard's work has also been enhanced through the unit devoted to him in the ICMI AMOR project (Bosch, 2023).

Over the years, the ATD has evolved, incorporating new concepts and research methods, drawing on new fields of experience beyond mathematics and adapting to the diversity of its users' cultures. It provides an exceptional approach to combine the institutional dimension of teaching and learning processes with their more specific epistemological and cognitive dimensions. Drawing on the principles of the social sciences, it offers productive linguistic and symbolic elements that allow researchers to detach from prevailing institutional perspectives on teaching and learning processes, while maintaining a strong empirical basis.

Yves Chevallard has transformed Guy Brousseau's initial project of establishing didactics of mathematics as a true science into the more ambitious venture of creating a science of *the didactic*. This would be a science capable of addressing all the disciplinary and interdisciplinary specificities of study processes without taking the disciplinary division for granted. It is a self-reflexive science that reflects on its own development, institutional relativity and epistemological roots.

However, Yves Chevallard was not merely a passionate researcher. He has always been involved in teacher professional development, deeply committed to elevating the teaching profession above the semi-professional status it all too often still holds in many countries, and worked tirelessly towards this goal. The foundation of a scientific discipline to support this profession forms part of the raison d'être of didactics.

Yves Chevallard's work has steadily grown in prominence and utilisation within the international community of research in mathematics education and other educational fields, including vocational training. The ATD community is growing accordingly and contributing to the development of this research framework. Although he was certainly not the only one, Yves Chevallard was the key architect of the major advances to date. He was also the person who fostered the cohesion of this community. He leaves behind an immense scientific legacy that will continue to inspire educational research. The best tribute we can pay him is to keep it alive and make it flourish.

References

Barbé, J., Bosch, M., Espinoza, L., & Gascón, J. (2005). Didactic restrictions on teachers practice – the case of limits of functions in Spanish high schools. *Educational Studies in Mathematics, 59*, 235–268.

Bosch, M. (2023). I*CMI AMOR Project – Yves Chevallard Unit – The Anthropological Theory of the Didactic*. https://www.mathunion.org/icmi/awards/amor/yves-chevallard-unit.

Chevallard, Y., Bosch, M., & Gascón, J. (1997). *Estudiar matemáticas: el eslabón perdido entre la enseñanza y el aprendizaje*. ICE- Horsori.

Kang, W., & Kilpatrick J. (1992). Didactic transposition in mathematics textbooks. *For the learning of mathematics, 12*(1), 2–7.

Wozniak, F., Bosch, M., & Artaud, M. (2006). *The Anthropological Theory of the Didactic*. https://ardm.eu/who-are-we/yves-chevallard-english/