

PHILOSOPHY OF SCIENCE IN GREECE: PAST, PRESENT AND FUTURE

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Philosophy of science emerged in Greece in the early 1970s and started to acquire momentum after the fall of the military junta in 1974. Back then, philosophy as practiced in Greece was mostly concerned with the ancient Greek literature—mainly from an exegetical and philological point of view. There was also some interest in the history of philosophy—mainly the continental philosophy. Overall, there was little engagement in systematic and innovative philosophical research in the main areas of the discipline (perhaps with the exception of ethics).

It was the general intellectual climate that came with the fall of the dictatorship, fostering as it was theoretical pursuits, heated debates, open-mindedness and the critical spirit, which made room for the cultivation of analytic philosophy.



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There were the first translations into Greek of some classic papers of analytic philosophy and a growing interest in Wittgenstein's philosophy (with the translation into Greek of the *Tractatus* in 1971 and of the *Philosophical Investigations* in 1974). Most of the creative philosophical activity was still taking place outside the university and was organised by the *Centre of Philosophical Research* (founded by Paul Christodoulidis), which operated in Athens.

The CPR established the philosophical quarterly *Deukalion*, named after the mythological hero who survived the Deluge with his wife Pyrrha and re-created humanity. The journal

published mostly translations of some important philosophical papers and to a lesser extent some original research. Three issues in 1975, 1977 and 1978 respectively were dedicated to translations of some major papers in the philosophy of science (by Popper, Hempel and Kuhn), the philosophy of physics (by Reichenbach, Bohr and Langevin) and the philosophy of biology (by Dobzhansky, Mayr, and Maynard-Smith).

CPR also organised series of lectures, seminars and courses for the general public, taught by the founding members of the CPR and by younger scholars who had recently finished their PhDs, mostly abroad.

These courses were regularly published in a series called 'Philosophy Chapters' and brought a younger generation of philosophers and scientists in contact with analytic philosophy.

Circa 1978, the Association of Physicists and members of the Physics Dept of the University of Athens started to organise series of seminars and conferences on the foundations of physics. A key role was played by the French-educated physicist and philosopher of science Eftichios Bitsakis, who founded the Interdisciplinary Research Group and had already published a number of books on philosophical issues in modern physics, mainly from a Marxist viewpoint.

In Thessaloniki, during the 1970s, there was a group of young mainstream philosophers in the Aristotle University working around George Mourellos (1912-1993), who was educated in France and had some interest in the methodology of science. (He published a book on Meyerson's philosophy in French in the late 1960s). Nikos Avgelis wrote his dissertation on the concept of causation in modern philosophy of science and had a sustained interest in analytic philosophy and the Logical Positivism. He also supervised the translation into Greek of some of the (less demanding) works of Schlick (his London Lectures on *Form and Content*) and Carnap. He was quite ahead of his time in discerning a certain Kantian element in the work of Carnap; but little on this was published outside the informative intro-

duction to the Greek translation of Carnap's *Philosophy and the Logical Syntax of Language*. It was under Avgelis's supervision that Christodoulidis wrote his dissertation on the deductive-nomological model of explanation, offering the first in Greek systematic account of neo-positivism, and that Vassilis Kalfas wrote his own dissertation on issues of rationality and scientific progress.

ism started to spread, though his major philosophy of science works have yet to be translated into Greek. A talented young member of the group, Emiliios Metaxopoulos (1955-2010) translated into Greek in 1986 Lakatos's book on the MSRP and published in 1988 a notable book (in Greek) titled *Convention and Truth: the adventures of modern epistemology from Duhem to Lakatos*.

Kuhn's *Structure* was translated into Greek by Kalfas in 1981. The reception of the *Structure* was extremely warm. The book immediately struck a very sensitive cord among a group of Marxism-oriented scientists who,



Greek editions of Lakatos', Feyerabend's and Kuhn's major works



Back in Athens, a group of philosophers of social science and scientists (most notably Demetris Dimitrakos and Costas Krimbas) formed in 1983 the *Group of Critical and Scientific Thought: Karl Popper* and had regular seminars. Popper's falsification-

arguably, found in the *Structure* a philosophical reading of the history of science congenial to the structuralist and Marxist schools of French philosophy in the 1960s and the French epistemological tradition. This group was based at the General Science Dept of the National Technical University of Athens (NTUA) and its core were Aristedes Baltas, Kostas Gavroglu, Aris Koutoungos and Pantelis Nikolakopoulos (1952-2001). This group was joined by the physicist Giorgos Goudaroulis (1945-

1996) of the School of Engineering in Thessaloniki, who translated into Greek Feyerabend's *Against Method* in 1985.

Gavroglu and Goudaroulis founded a book-series on epistemology and philosophy of science with a small independent publisher, in which the translations of Kuhn, Lakatos and Feyerabend as well as some monographs by Greek authors appeared. The fact that Popper, Kuhn, Lakatos and co became popular in Greece at a time when they had started losing their centrality in the Anglo-American scene explains (at least partly) the tendency towards general philosophy of science that prevailed, and is still dominant, in Greece.

A new law governing the universities was voted in the Parliament in 1982, which rendered the Greek higher education far more democratic and egalitarian. Younger and promising people could now take junior posts in the university and the creation of new disciplines was encouraged.

In this new setting, the NTUA group took an important step towards the consolidation of history and philosophy of science in Greece, by founding, in 1982, a graduate programme in HPS, which was accompanied by a series of seminars and workshops with foreign academics.

A number of younger persons were educated in HPS in this programme. The NTUA group organised in 1986 in Thessaloniki a major international conference on Lakatos titled: 'Criticism and the Growth of Knowledge: Twenty years after', the proceedings of which were published in 1989 in

the *Boston Studies in the Philosophy of Science*.

In the middle of 1980s, the Greek logician Dionysis Anapolitanos came back from Pittsburgh with a prize-winning PhD on Leibniz and the Continuum Hypothesis, which was directed by Wilfrid Sellars. Anapolitanos brought back with him the possibility of a link with the Pittsburgh Center for Philosophy of Science. So around the middle of 1980s, there was a critical mass of mostly philosophically-minded scientists with a solid interest in history and philosophy of science.

It was in this period that systematic research papers in philosophy of science written by Greeks started to appear in international journals and collections. A good sample of the state of Greek philosophy of science towards the end of the 80s can be found in the book *Greek Studies in Philosophy and History of Science* (in *Boston Studies in the Philosophy of Science*, 1990).

The link between the emerging Greek community and the Pittsburgh Center came to fruition and proved instrumental for the institutional establishment of philosophy of science in Greece. In 1992, Jerry Massey (the then director of the Pittsburgh Center) entrusted the Greek community with the organisation of the second international conference of the Center's fellows, which took place in Athens. Since then, there have been four Athens-Pittsburgh international conferences in 1996 (*The Problem of Anthropomorphism in Science and Philosophy*, in Del-

phi; in 1998 (*The History and Philosophy of Greek Medical Traditions from Hippocrates to Harvey*, held at the University of Athens); in 2000 (*Experience and Knowledge*, held at the University of Crete); and in 2003 (*Proof and Demonstration in Philosophy and Science*, in Delphi).

At the end of the 1980s, a number of younger people with links to the NTUA group (Arabatzis, Arageorgis, Karakostas, Psillos) went to the US (Princeton, Pittsburgh) and the UK (Cambridge, London) and completed PhDs in history and philosophy of science. All of them returned to Greece by the end of 1990s and got academic posts. With them, we have a second generation of Greek philosophers of science.

By the early years of the last decade of the twentieth century, a philosophy of science community with good research credentials and international links had grown roots. With them, the idea of a *Department of Philosophy and History of Science* had started to ripen. The driving force behind the creation of this department was Anapolitanos, who should be credited not only with the vision that the discipline would flourish with the presence of a university department, but also with the masterly execution of the plan.

Various contingencies played, as always, a key role. One of them was that the then Rector of the University of Athens, Petros Gemptos, was an economist and lawyer very much imbued in the philosophy of the social sciences. Other existing groups and individuals, like the NTUA

group, Christodoulidis and Krimbas (one geneticist and one historian of biology), supported this endeavour wholeheartedly.

For various reasons that had mostly to do with the opposition of the Division of traditional philosophy in the University of Athens, the department was dubbed Dept of *Methodology, History and Theory of Science*

(though in English the official title is *Dept of Philosophy and History of Science*). It was officially launched in 1992 (with a unanimous decision of the Senate of the University of Athens) and admitted its first undergraduates in the academic year 1994-95. A year later, the PHS dept of the University of Athens and the Humanities Division of the NTUA established a joint graduate programme in History and Philosophy of Science and Technology, with a PhD strand. This graduate programme has become one of the focal points of philosophy of science in Greece, with numerous graduate students, academic visitors, conferences and other activities. What is now a third generation of Greek philosophers of science have been educated in this programme. In 1996, a new History and Philosophy of Science journal was established—*Neusis*—which has become the vehicle through which most philosophical research in Greece (and in Greek) is disseminated.

During the almost twenty years of its existence, the PHS dept of the University of Athens has grown from strength to strength. Having the view that philosophy of science is an integral part of philosophy, it has acquired some important strengths in analytic philosophy, ancient philosophy, logic, epistemology and metaphysics, appointing a number of

researchers) in scientific realism (Psillos), the metaphysics of science (Psillos, Karakostas), philosophy of physics (Karakostas), the ancient philosophy and science (Ieorodiakou, Kalligas), conceptual change (Arabatzis, Kindi), philosophy of maths & logic (Anapolitanos, Dimitracopoulos) and the philosophy of economics (Mantzavinou).

The department has also lively research groups in the history of science (led by Gavroglu and Demetris Dialetis), in the cognitive science (led by Stella Vosniadou) and in the history and philosophy of the social sciences. It is noteworthy that members of the dept have authored 11 books (published by international presses) and have edited another 35 books (again published by international presses). In 2010, the dept organised the first Greek Congress of Philosophy of Science, with over 120 contributed papers and over 200 participants. In the end of the same year, the dept went through a process of evaluation by an international team of philosophers and was deemed to be a centre of excellence in philosophical research in

Greece. The evaluation report (in English) can be accessed at [http://www.adip.gr/eks/MITHE%20Report%20Final%20\(2\).pdf](http://www.adip.gr/eks/MITHE%20Report%20Final%20(2).pdf).

Philosophy of science has also grown in the Division of Humanities of



Neusis. Biannual Journal for the History and Philosophy of Science and Technology, Issue 18 (2009), dedicated to the history of technology.

excellent younger philosophers who did their PhDs in analytic philosophy mostly in the UK. What may be called the British School of Philosophy is now a major force in the Greek philosophical scene. The dept has research groups (whose members are post-doctoral and doctoral

NTUA, under the leadership of Baltas, who was recently awarded a prestigious award of excellence in teaching and research. In the Dept of Philosophy and Education in the Aristotle University of Thessaloniki there is a dynamic group of post-doctoral researchers, led by Demetra Sfendoni-Mentzou (who did her PhD on the philosophy of Charles Peirce under Mourellos in the early 1980s). This group has focused its research on Aristotle's philosophy and science, with a special interest in Aristotle's possible relevance to modern science. Kalfas, who after many years in the University of Crete is now in Thessaloniki, has shifted his attention to ancient Greek philosophy and science.

Outside Athens and Thessaloniki, there is a pocket of interest in the philosophy of science in the University of Crete (George Roussopoulos on Logical Empiricism, and Voula Tsinorema on bioethics). In one way or another, philosophy of science has grown roots in all philosophy departments and divisions of Greek universities. There is no doubt that philosophy of science in Greece has come of age.

What lies ahead in the future? The prospects of philosophy of science in Greece hung on the currently emerging third generation of philosophers

of science, made mostly of home-grown PhDs. There are, to be sure, a few doctoral students who currently finish promising dissertations abroad and can help carry the torch forward. But it is my firm belief that the future of the community lies in its ability to consistently produce home-grown PhDs of high quality and international standards. The good news is that we have been on the way to achieve this, as is evinced by the fact that, with increasing pace and consistency, doctoral and post-

doctoral researchers publish in international journals and have their papers accepted for presentation in major (refereed) international conferences.

Philosophy of science in Greece can gain by strengthening the links among the various research groups in Greek universities and by sharpening its international profile and orientation. The upcoming EPSA11 conference in Athens is a major step in this direction. I am sure there are more to come.



A selection of publications by Greek philosophers and historians of science



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