

Obituary for Patrick Suppes

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Patrick Colonel Suppes (1922–2014)

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We deeply mourn the death of our senior editor Patrick Suppes (March 17, 1922–November 17, 2014). After the death of Carl Gustav Hempel in 1997, who had been the senior editor since the reestablishment of ERKENNTNIS in 1975, Wilhelm Essler (as the former editor-in-chief) and I (as the acting one) asked Pat to succeed Hempel as editor of ERKENNTNIS.

Our journal was founded by Hans Reichenbach and Rudolf Carnap in 1931. It was the spearhead of what Reichenbach called scientific philosophy. Its first eight volumes were certainly among the most important documents of 20th century philosophy. However, the journal was shut down after strong anti-Semitic pressure by the Nazi regime. It was refounded by Wolfgang Stegmüller and Wilhelm Essler in 1975 as an international journal for analytic philosophy. But it continued to have a bias towards formal methods and philosophy of science. So, who could represent it better than Pat? The answer was emphatically: no one! We were deeply grateful that he responded positively to our request and that we could win him as an editor of ERKENNTNIS in 1998. When Hannes Leitgeb took over as editor-in-chief in 2011, succeeding Hans Rott (editor-in-chief 2001–2010), we changed the subtitle of the journal to reflect its initial aim: it is now an international journal of scientific philosophy. And then it was even better represented by Pat.

Indeed, Pat Suppes was not only a scientific philosopher; he was a philosopher and a scientist. His scope was simply awe-inspiring. In our modern times it has become well-nigh impossible to be a universal scientist, but Pat came closer to it than anybody else.

The list of his publications is huge; the administrators of his web pages had a hard time even classifying them. The topics on which he worked and published widely, very often with most renowned colleagues, comprise: foundations of physics, in particular special relativity theory and quantum mechanics, measurement theory, decision theory, social choice theory, in particular distributive justice, foundations of probability, causality, foundations of psychology, brain research, especially on eye movements, behaviorism, learning theory, mathematical concept formation in children, education and computers, computer-assisted instruction, psycholinguistics, philosophy of language, philosophy of science, in particular set-theoretic methods, what he calls the schematic character of knowledge, and finally pragmatism (see also his instructive intellectual autobiography).

What is not so well known among philosophers is that Pat had a double career not only as a philosopher, but also as a psychologist and educator. He has served in both communities and received the highest recognition and awards there. In fact, when he received the National Medal of Science in 1990, the highest scientific distinction in the US, it was rather for his achievements beyond philosophy. If Nobel prizes were given for all disciplines, he might well have been one of the rare figures to win a Nobel Prize twice.

His writings did not just contribute to the topics mentioned, they were often path-breaking. The three volumes on the *Foundations of Measurement* which he published together with David Krantz, Duncan Luce, and Amos Tversky still constitute the bible of measurement theory. Having learned model theory from Alfred Tarski, he was the first to propagate (starting already in the 1950s) the most influential idea that scientific theories are best conceived not as sets of statements,

but rather as set-theoretic structures (or models). He summarized his views in his book *Representation and Invariance of Scientific Theories*, which was distinguished by the Lakatos Award 2003. The point that causation should be somehow probabilistically conceived had been around for a while, but he was the first (in *A Probabilistic Theory of Causality*, 1970) to explicitly attempt a probabilistic definition of causation. He continued and generalized on this topic in his book *Probabilistic Metaphysics*, which may be seen as a philosophical résumé of his probabilistic thinking. He was among the most active in the high times of mathematical psychology. He had a clear vision of how to use computers in education and was among the first to put his ideas into practice. I value his old papers on distributional justice, because it is there that I first found clearly expressed the idea that the interpersonal comparison of utilities, which is fundamental for utilitarianism and other ethical theories, is a normative, not an empirical issue—an idea that is still not fully appreciated.

This is not the place for a scientific review. Also, I am certainly not competent to assess all of Pat's scientific and philosophical merits. However, already the sample I have given is most characteristic.

I have often asked myself: How was Pat able to be such a near-universal scientist? One point is that he stayed at the best place he could be for almost his entire academic career, namely at Stanford University. Another point is that he was an extremely cooperative person—not long ago an unusual characteristic for a philosopher—collaborating indeed with the best of their fields. I think the basic point, though, is that he was primarily a mathematician with comprehensive foundational rather than internal mathematical interests. The universal language of mathematics was his avenue to many scientific disciplines, and his foundational interests led him to actually contribute to all those disciplines as well as to engage in deep philosophical reflection on those matters. Still, these explanations appear shallow to me, and his achievements miraculous.

I have met Pat many times. And I am deeply indebted to him. I recall having studied his *Introduction to Logic* and his *Axiomatic Set Theory* as a young student. There are still many respects in which I prefer those textbooks to the many alternatives available by now. My first personal encounter with him was in 1975. I was working on my PhD thesis on decision theory and attended a summer school in Salzburg, with Pat Suppes being one of the lecturers. I recall how deeply I was struck. I had studied a lot of philosophy of science, relying on paper knowledge from the sciences, but here was a philosopher of science with an abundant knowledge of examples from real science. And I was impressed by his clear and straight, extremely instructive and issue-related lecturing with his sturdy voice and his soft American accent, which seemed to be made for the context. Years later, he reviewed, as I learned afterwards, my first paper on causation (which appeared in the *Journal of Philosophical Logic* 1980); it was the longest and most careful review I ever received. I think this paper was my entry ticket to his circles.

So I got to know him as a continuously interested, cooperative, diligent, cheerful and even unpretentious person. When Carl Gustav Hempel died (while I was the editor-in-chief of *ERKENNTNIS*), it was absolutely clear to us that he would be the ideal successor. We were very glad that he accepted that role. We didn't burden him

with the daily work. But all the time, in particular during the various transition phases we have had since, it was so valuable to have his advice, his voice, and his person as a backing. His passing is an inestimable loss for me, for ERKENNTNIS, for our scientific community, and indeed for philosophy as a whole.