



Eric S. Maskin

The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2007

Autobiography



I was born in New York City, but grew up across the Hudson River in Alpine, New Jersey. With fewer than a thousand residents, Alpine was too small to have its own secondary schools, so I attended junior high and high school in the town of Tenafly, three miles down the road.

At Tenafly High, I was lucky to have some dedicated teachers; I'm especially indebted to my calculus instructor, Francis Piersa, who opened my eyes to the striking beauty of mathematics. Thanks to him, I became a math major at Harvard College, where I studied algebra with Pierre Samuel and Richard Brauer and analysis with George Mackey and Lars Ahlfors – all of them inspiring, some of them amusingly eccentric. Almost by accident, I wandered at one point into a course on "information economics" taught by [Kenneth Arrow](#), later my Ph.D. advisor. The course was a



hodgepodge of topics from the frontier of economic theory, but a good part of it was devoted to Leonid Hurwicz's work in the nascent field of mechanism design. This work was a revelation to me: it had the precision, rigor, and sometimes the beauty of pure mathematics and also addressed problems of real social importance – an irresistible combination.

In fact, I ended up essentially doing an economics Ph.D. The degree was nominally in applied mathematics. But the applied math program at Harvard in those days was remarkably flexible, and allowed students to study whatever they wanted, as long as they wrote a thesis with "significant mathematical content." I took quite a few economics courses (although none, I regretted later, in macroeconomics or economic history), including Truman Bewley's general equilibrium course, where I first got to work with my classmate and later co-Laureate Roger Myerson (we sometimes tackled the rather demanding problem sets together) and Jerry Green's analytic seminar, whose student participants included Elhanan Helpman, Bob Cooter, and Jean-Jacques Laffont.



As an advisor, Ken Arrow was amazingly generous with his time; and I learned an immense amount from our many one-on-one discussions in his office. Under his supervision, I wrote a dissertation showing that, on any domain of preferences, the problem of finding a social welfare function satisfying the Arrow axioms¹ is solvable if and only if the problem of finding an unmanipulable mechanism is also solvable.

Ken thought I'd benefit from sitting at the feet of his friend and collaborator Frank Hahn, who helped arrange a post-doctoral research fellowship for me at Jesus College in Cambridge University. That year was a marvelous experience in every way – from Cambridge college life, to London theater, to touring around Europe. But the true highlights were weekly "tutorial" sessions with Frank, and the opportunity to start research projects and life-long friendships with Jean-Jacques Laffont (then in Paris) and Partha Dasgupta (then at the LSE).

While in England, I got caught up in a problem inspired by the work of another new friend, Leo Hurwicz (Ken had introduced me to him at Stanford): under what circumstance is it possible to design a mechanism (that is, a procedure or game) that implements a given social goal (formally, a social choice rule)? After struggling with that question for most of the year, I finally realized that monotonicity (now sometimes called "Maskin monotonicity") was the key: if a social choice rule doesn't satisfy monotonicity, then it is not implementable; and if it does satisfy this property it is implementable provided no veto power, a weak requirement, also holds. The proof of the latter finding was constructive, that is, I showed how one can explicitly design an implementing mechanism. But the mechanism was fairly cumbersome, and so I was most grateful to Karl Vind, my discussant at that summer's Econometric Society meeting in Paris, who suggested a nice simplification. I wrote up the full details of my results in the paper "Nash Equilibrium and Welfare Optimality" during my first term as an assistant professor at MIT that fall. But I didn't actually publish the paper for another twenty years: there seemed little point, since

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it was already well known in its working paper form.

The MIT economics department of that time was still small enough so most of the faculty would fit around a single large table in the faculty club each day for lunch. That occasion was always a treat – on any given day, [Paul Samuelson](#) or [Franco Modigliani](#) might hold forth, with frequent interjections by [Bob Solow](#), to the rapt audience of junior faculty like me. But I probably learned most at MIT by teaching and working with Peter Diamond, who acted like a big brother to me during my time in the department. I also greatly enjoyed talking with visiting professor John Riley, who became a very close friend and a frequent collaborator.

Of course, MIT was notable not just for its faculty but also for its students. And, facing such extremely bright kids as a rookie teacher was something like being thrown to the wolves. Fortunately, some of them were able to overlook my faults as a lecturer and went on to write their dissertations with me. And a couple – Drew Fudenberg and Jean Tirole – soon became co-authors (and great friends).

Although MIT was undoubtedly the best place for my first teaching job, Harvard seemed a more natural long-term fit for the sort of work I was doing, and so after seven years I moved up the river to Littauer Center. The senior theory group that evolved at Harvard – Andreu Mas-Colell, Jerry Green, Oliver Hart, Drew Fudenberg, Mike Whinston, Marty Weitzman – was rivaled by few others in the profession. And besides the theorists, Janos Kornai and [Amartya Sen](#) proved to be extraordinary friends and colleagues. From Janos, I learned about central planning, and we ended up jointly supervising a cohort of unusually talented Ph.D. students from China, two of whom – Yingyi Qian and Chenggang Xu – later became co-authors. From Amartya, I learned the subtleties of social choice theory, and we twice taught a course on this subject together – once with Robert Nozick, once with Tomas Sjöström.

As at MIT, I was lucky to have a succession of terrific students at Harvard. Four of them (in addition to Yingyi and Chenggang) became long-term collaborators and friends: Abhijit Banerjee, Mathias Dewatripont, Sandeep Baliga, and Michael Kremer. But after fifteen years at Harvard, I was feeling the pressure of over-scheduling: too many courses, too many students, and – worst by far – too many committee meetings. So, when an offer arrived for a position at the Institute for Advanced Study (entailing very few duties), I took it.

As of this writing, I've been at the Institute for seven years, and it has provided everything I had hoped for: first-class work conditions, stimulating colleagues, interaction across disciplines, blessed freedom. I do some teaching for the Princeton economics department and continue to supervise Ph.D. students – but at a more modest rate than before.

The word "luck" appears repeatedly in this autobiographical sketch – and that is no accident. I was exceptionally lucky to have discovered economics in the first place, to have entered the field at a time when mechanism design was just beginning to bloom, and, most crucially, to have had a succession of remarkable teachers, students, colleagues, and friends in the profession. Finally, in a world where so many people dislike their jobs, I am lucky to be spending my days working hard at something I love.

1. As laid out in K. Arrow, *Social Choice and Individual Values*, 1951.

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This autobiography/biography was written at the time of the award and later published in the book series [Les Prix Nobel/Nobel Lectures](#). The information is sometimes updated with an addendum submitted by the Laureate. To cite this document, always state the source as shown above.

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