

Paul A. Samuelson: On Being an Economist

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FOREWARD, by Joseph E. Stiglitz

This book captures much of the spirit of Paul A. Samuelson. Those who know Samuelson, one of the great economists of the twentieth century, only through his writings may have already sensed his wit, his intellect, his brilliance. This book brings these into focus, through details of his personal history and a wealth of anecdotes from colleagues and students.

I became a student of Paul in the fall of 1963, as part of the entering class at MIT. But my debt of gratitude—beyond the usual debt that everyone in the profession owes him for having crystallized so many central ideas—predates that. He was responsible for my being at MIT. As a junior, late in the spring of 1963, I decided that I wanted to switch from majoring in physics to economics. My advisor, Ralph Beals, called Paul and urged him to accept me—late as it was, and with no college degree—into the Ph.D. program.

I loved my MIT courses—but especially I loved my classes with Samuelson. The first half hour (sometimes the first hour, occasionally, the first hour and a half) was often spent on what appeared to be some digression, some comment on the history of the field. Oblique references might or might not be picked up and developed further later. Then, in the last few minutes of the class, he would turn to the mimeographed notes that he had prepared and bring it all together. He always provided fresh insights beyond anything one could get from any text. I had come to MIT to see great minds in action, and Samuelson more than satisfied what I had hoped to get.

The following summer, Paul asked me to be his research assistant, to help edit and organize what were to be the first two volumes of his collected papers. What a way to study for one's comprehensive exams! I figured that if I understood Samuelson's papers, I understood modern economics. Samuelson had achieved a breadth of contributions that was truly enviable—without sacrificing depth in any way. He had shown that, in matters of intellect, there did not have to be trade offs. Quite the contrary—it was only in seeing all of the parts that one could understand the whole. If one really wanted to understand our economic system, one could not be just a macroeconomist or a microeconomist; one could not ignore finance, but one could not just be a finance economist. One had to understand growth and economic dynamics; but one also had to understand the principles of static resource allocation. Indeed, from his earliest work, *The Foundations of Economic Analysis*, he looked for an underlying unity.

There is another sense in which Samuelson might have been seen to repeal the usual laws of economics. Samuelson had not only an absolute advantage, but a comparative advantage, in both exposition and research. His textbook, *Economics*, was a landmark. Others might have done almost as good a job in explaining the principles of economics. They might have gotten things a little wrong, missed some of the subtleties,

but these were distinctions that would have been lost on most undergraduates anyway. But who would have discovered the factor-price equalization theorem? Who else would have developed the theory of revealed preference or the overlapping generations model? Who could have articulated the pure theory of public goods? Would Samuelson have given us even more nuggets, enough to keep another generation of economists engaged in filling out the details, if he had devoted himself 100% to his research? The very idea is daunting, and one can only speculate—but I think in many ways the two activities were complementary. It was because he understood the ideas so clearly that he could articulate them so well; and, perhaps, as he strove to refine the articulation, he generated ideas that his always-engaged mind would eventually develop into precise mathematical models.

I suppose our paths were destined to cross. We were both from the same steel-making town of Gary, Indiana, though my family remained decades after his family had left. Like Paul, my mother (born a year earlier) received her undergraduate degree from the University of Chicago—mostly because, in the Great Depression, one had no choice but to go to the local college. I'm sure that the poverty, inequality, unemployment, and discrimination that one could not miss growing up in Gary must have had some of the same effect on Samuelson that it had on me. These were the central problems of our society—how could one not want to do something about them? And how could one really believe that markets, by themselves, were solving these problems—or would ever provide a full resolution?

To understand Samuelson, though, one has to understand that his strong social ethic is mixed with a deep intellectual commitment, a love of mathematics and of ideas. The ideas carried him along, where they might. Sometimes, as in the development of the pure theory of public goods, they provided fundamental insights into the appropriate role of government; or, as in the pure consumption loans model, into the dynamics of growth and the role of social security. He understood the role of markets, but he also understood their limitations. He understood the uses of mathematics, and he, more than perhaps anyone else, developed the MIT style of using “small” models to understand the workings of the economy. General theories—in which one could say little more than that an equilibrium exists—were of limited value. He wanted to say more, and he showed the world how one could say so much more, if only one crafted one's model carefully and thoughtfully.

For those of Samuelson's generation, the Great Depression was the defining event, Keynesian economics the revolution in ideas. Classical economics could not explain the Depression, and with the abandonment of classical economics, how was one to retain faith in market economics? Some of the earlier generation buried their heads in the sand and denied, or at least did everything they could to minimize the extent of, the problem. In the heady days of growth theory at MIT, we were once lectured on putty-clay growth models—where capital was malleable before it was put into concrete form, but not after—and warned of a similar problem in human capital. We would be molded for life by what we learned in these three or four years; a few of the more lucky might be able to break out of the mold, but for the rest of us our present was our future. Though put forward as mere description of reality, the warning itself was part of our MIT

education, what we would carry forward as part of our intellectual capital. Samuelson, in spite of his Chicago training, was not fully vested in the classical model and became one of those in the forefront of the Keynesian revolution. And yet, through his classical synthesis, he tried to preserve as much of classical economics as possible.

But still, even setting aside Keynesian unemployment problems, Samuelson never fully believed, I think, in the perfection of the markets. At least that was the conclusion I came to as a result of the diatribes we heard against the extremism of Chicago economics, and its blind faith in markets. It was this as much as anything else that set me on the road to more deeply questioning the assumptions underlying the neoclassical model, assumptions such as those associated with perfect and symmetric information and complete markets. I was more convinced by the criticisms of “Chicago” economics than by the simple models of perfect competition and perfect markets, in which Chicago economics might have actually made some sense. Models help guide our thinking, but we should never let the analysis of simple models replace our thinking, or let us lose touch with reality—including the realities that brought us to economics in the first place.

I was fortunate to be a student of Paul Samuelson—not just the kind of student that the entire economics profession has been for more than sixty years, learning from his voluminous written works, but a “first hand student.” As a student, there is, I think, no greater tribute that I could give than this: He was a role model, one which ever since I have sought to emulate.