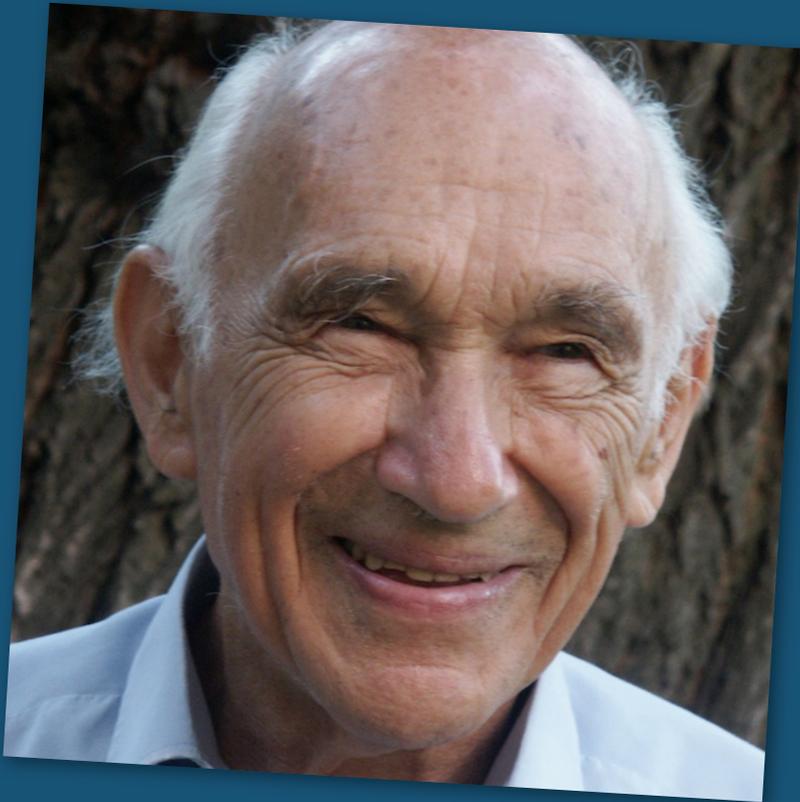


# Economics



as a

# Multi-Paradigmatic Science



In Honour of  
Kurt W. Rothschild  
(1914-2010)

**Karl Aiginger\***

**Oligopoly and uncertainty - the cornerstones of  
Kurt Rothschild's socioeconomic agenda<sup>1</sup>**

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<sup>1</sup> I am grateful for comments by Alois Guger, Peter Mooslechner, Gunther Tichy, Ewald Walterskirchen even if I did not follow all their suggestions, since this should remain a very personal tribute to Kurt Rothschild's academic and personal life.

This note lays out ten hypotheses about how Kurt Rothschild's choice of scientific topics was related to his political and ethical agenda. The first two observations claim that it was oligopoly theory in which Kurt Rothschild achieved his highest academic acclaim; and they show why this was such a good choice for a political figure. The following paragraphs refer to his specific interpretation of uncertainty, to which I was at first reluctant to subscribe, but which was instilled with new life in the recent Financial Crisis. Following these remarks are subjective observations about the relationship between his economic world and his character, which was firm, humorous, humble (and in some rare but important occasions) angry and on his six decade long connection with the WIFO (Austrian Institute of Economic Research). The final comments relate to ethical and practical messages he left and finally what would have made him angry about economists after the Financial Crisis. All these observations are restricted by the fact that I knew Kurt Rothschild for only 40 of his 96 years, and was director at WIFO for only five of his 63 years of collaboration with this European research hub.

*Thesis 1: Kurt Rothschild's field of research, on which he built up his early academic reputation, was oligopoly theory. This is a surprising but excellent choice for somebody interested in the progress of society.*

Oligopoly theory tells us that firms have the leverage to shape their environment; managers are not mathematicians maximizing an exactly defined profit function given a set of exogenous variables. They are strong minded human beings, determined and able to do the best to achieve profit in a demanding, unshaped, chaotic and fluid environment. As a rule firms also have a few very determined competitors, using instruments known or innovative, fair and unfair, aiming for collusion or for war.

Such a broad array of strategies in which many choices can and must be made, is not available under other forms of competition – neither in "pure" competition, nor monopoly. The world is richest in strategies under oligopoly; managers can choose and shape strategies, speculate, collude, innovate, and think strategically. And if you add power, pressure, class interests, lobbying and side payments, the choices available are even larger and more realistic.<sup>2</sup>

*Thesis 2: The rich set of strategies existing under oligopoly theory mirrors the available choices for economic policy and economic systems. We do not have to choose between one well defined socialist planned economy (e.g. Marxian communism) and an alternative*

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<sup>2</sup> Another field in which Rothschild contributed to economic theory profoundly and persistently was wage theory (see Rothschild (1954) and Tichy (2012))

*capitalist market economy (e.g. Manchester capitalism), but instead there are a plethora of different systems which may fit at different stages of development, to different cultural backgrounds, histories and specific interests; and they can all coexist in a globalized world.*

Furthermore, many economists and politicians think the solutions are clear cut, that the given circumstances point towards only a small set of options. "Handlungszwänge" (external constraints) are believed to dictate what has to be done in a competitive, globalized world. Rothschild did not claim that "one model fits all", not even Keynesianism (a heresy for which he was rebuked by *Joan Robinson*). He maintained that there are many options, which may differ across countries and their particular stage of development. He believed nothing was straight forward, but rather that things were complicated; they could not be known ex ante but evolved, amidst a multitude of vested interests.

*Thesis 3: If there is one overarching economic message Kurt Rothschild wanted to deliver, it was that uncertainty is at the core of economics. Mechanisms and mathematical techniques which are applied to cope with uncertainty are no more than nice tries but to no avail. No mathematical formula, no insurance is able to cope with "true uncertainty" (in contrast to risk).*

This message is built on the ideas of *Knight*, elaborated and deepened by *Keynes*, but often forgotten by Keynesians and Post Keynesians. The idea that uncertainty is not insurable has recently gained dramatically in importance. Uncertainty, together with waves of optimism and pessimism, and profit maximizing firms, leads to a dangerous instability in the financial sector and in economies as such. Financial systems are inherently unstable and therefore have to be regulated. And regulation is no easy task in a world of mighty international oligopolistic firms and national multi layered government systems amounting to 30%-50% of Gross National Product in industrialized countries.

I wrote a book on Production Theory under Uncertainty (*Aiginger*, 1987) in the eighties and tried hard to model utility maximizing firms in – what I thought to be - a Keynesian environment: a post-post-Keynesian model without market clearing, with inventory build ups and disequilibria. I felt very proud to have avoided the neoclassical ideology of quickly and perpetually clearing markets (with only differing "states of nature" representing uncertainty). Keynesian uncertainty had finally found its place in the decision making process of firms, I thought.

However, I earned only one of Kurt Rothschild's typical statements: "Well done, given what you tried". When I asked, I received the verdict that what I had modelled was not Keynesian

uncertainty: "Keynesian uncertainty can never be built into models". What Keynes meant was "true" uncertainty; here all decisions are different because they follow a completely different logic. What I had modelled was "petty uncertainty" or insurable risk. The proudest piece of my academic, economic life had been dwarfed. But not for a long time, because then Kurt Rothschild encouraged me to address this problem directly. I then modelled differences between "severe" uncertainty (in which decisions could not be changed ex post) and "petty uncertainty" under which a part of the decisions can be adjusted ex post at some costs (see Aiginger, 1988). I could claim that my models referred to a middle ground between uncertainty and risk. I was rescued, and could continue to claim to be some sort of post-post-Keynesian.

*Thesis 4: The financial crisis provided forceful evidence that true uncertainty differed from calculable risks. Despite ever more sophisticated models, no large forecasting model could predict the crisis. Many economists had warned about the housing bubble in the US, about irrational exuberance on the stock markets, about the size of financial transactions, about the amount of money looking for profitable investments, about disequilibria between the US and China and so on, but no model could predict the interrelation between these problems and the sudden spread of the consequences across markets and regions. The failure to predict the timing, depth and scope of the crisis occurred on a macro level, on the level of banks and investment houses, and it affected seemingly well diversified portfolios across products and regions. Some economists did predict an eventual breakdown of the economic system, but had done this in past crises which afterwards proved only to be temporary or regional.*

As if to prove that Kurt Rothschild was correct, one million mathematicians had taken over banks and other financial institutions over the past decade. They were hired to limit, even eliminate the risks of any financial investment by bundling (securitization), adding another rating, and diversifying over firms and continents and between world class and junk firms. The new innovations were not disadvantageous from the start; they created a huge globalized financial market, which helped millions of people to rise above the poverty line (modestly defined by \$1 or \$2 per day). But regulation did not step up with globalization. Politicians persuaded publicly supervised firms to give credit to everybody, instead of persuading firms to pay higher wages, or encouraging trade unions to do so. And so the last/recent financial crisis came about.

One of the reasons - if not the most important one - was that neither mathematicians, nor policy makers, nor bank regulators, nor economists had respected the concept of true economic uncertainty. Today – better late than never – the uninsurable part of risk is acknowledged; we call it "systemic uncertainty" and created systemic risk boards and request

that systemically important financial institutions (SIFIS) hold higher equity reserves (as compared to petty banks like Raiffeisen, Erste Bank, Landesbanken, Kommunalkredit or Hypo Alpe Adria).<sup>3</sup>

*Thesis 5: Having room to manoeuvre, the existing leverage of oligopolistic firms can be used for good as well as for bad. This is to some degree reflected in the objective function of a firm, or in the welfare function of society. But Rothschild claims that political processes as well as the conduct of individuals is important. Therefore Kurt Rothschild wrote a book on Ethik und Wirtschaftstheorie (1992).*

Managers and entrepreneurs may shape the environment for the good by adding value to products through innovation, by adding quality, by product upgrading, through services or for the worse by using financial power to expropriate labour or resources, by collusion, by raising entry barriers, by hijacking regulatory bodies, by subscribing to or complying with corruption, dictatorship, or wars to change market structures or the society.

Political groups can engage themselves for a better life, more justice, equality of opportunity, the future of the planet or they can opportunistically exploit fears, prejudices, declare the superiority of classes, elites, religions, groups, lifestyles.

*Thesis 6: Kurt Rothschild had strong beliefs which shaped his thinking. I do not know how they came about (some were inherited, some shaped through experience, some based on empirical economics), but together they enabled his calmness, determination, and humour.*

You felt these beliefs, when you entered his room. But they were not thrown at you if he started to speak. Ever polite, humble, and pretending not to know all too much about the subject for which you were asking advice. But you were never told that he did not have time for discussion.

He gave you advice, if you wanted it. If not, you could only present your ideas. But you felt that he knew more and that he approved of some parts of what you said and disagreed with others. And he would tell you about your omissions and shortcomings, but only on request.

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<sup>3</sup> This hypothesis is an interpretation, how Rothschild's insistence on the character of uncertainty could have been useful in the upcoming of the crisis, he did not publish himself much on the crisis. In personal discussions he persisted to realize the enormous differences in the level of the recent crisis with that in the thirties of the last century ("do not forget, children of unemployed people had no shoes at that time, they had to go barefooted into school")

On the other hand, you could be absolutely sure that he did not criticize you after you left his office. The worst he would say about you was "this is a good paper considering his age and his education" (a little forgiving smile about your conservative background, your teachers, and university as in my case). Maybe sometimes you would have liked him to be a little bit more explicit about why he did not like a paper, thus forcing you to sharpen your arguments.

*Thesis 7: Kurt Rothschild could become very determined, angry, and strategic, if it was important (for the university, for WIFO, for society; but never for himself personally). If he felt somebody was treated unjustly, if a bad policy was pursued with cynical arguments, if selfish interests or profit motives were carefully hidden (and argued for the sake of the "poor"), he became angry.*

In this case he could mobilize resources against such a strategy, and squash unjust arguments with polemic counter arguments. Rothschild could slam doors if a commission chose the wrong candidate and he usually believed this was done by a hidden conservative political agenda (as he had experienced for decades at Austrian Universities).

But this was the exception. Kurt Rothschild was patient. Somehow he knew he could wait and that history and justice and the good arguments were on his side. He seemed to have anticipated his longevity, or he triggered it through his humour and stress resistance. Asked whether he worked on the weekend, he answered, "Why should I? The week would be too short anyway, whether I worked five or seven days".

He did not strive to be in the media, he did not want to be the doyen of Austrian economists, the best publishing scientist at WIFO. Good ideas if developed, even if dropped on invitation, would eventually find their destination.

*Thesis 8: Kurt Rothschild has two singularities which will pin him down in the history of WIFO. The first one is easy: he worked at WIFO for 63 years. He started in 1947, specializing in Trade Theory and Labour Economics, but contributed in fact to all important economic topics. The second singularity, which will be harder to achieve by a WIFO scientist in the future, is that he was recommended by a Nobel laureate. This Nobel laureate was the founder of WIFO and antipode to his political views: Friedrich August von Hayek.*

This fact demonstrates that his scientific contribution and his ethical position were respected by economists with different views on social and economic questions.

*Thesis 9: There is one command (ethical recommendation) in Kurt Rothschild's book on Ethics in Economics (1993), which I will never forget, because it is neglected day by day (and*

*I may find traces of this in my own publications): an economist (scientist) has the obligation to supply all the evidence that exists, the complete truth.*

This implies that if there is positive and negative evidence on some economic hypothesis, you have to cite both, and not only the evidence in favour of the political conclusion you want to draw. As easy as this looks, it is very unusual for this advice to be followed.

Kurt Rothschild was never so naive as to believe that scientific research is absolutely objective. There are always some traces of subjectivity, vested interests play a role, along with one's personal motives, history, and education. But a scientist should downgrade this influence, instead of using it to indulge in his own prejudices and political interests.

There are some rules which Kurt Rothschild suggested to me which would lead to better policy advice; rules that were recommended (not necessarily devised) by him. The first one was that it is more important to raise an important question than to answer an unimportant one. The second one was that it is better to be vaguely right rather than precisely wrong.

*Thesis 10: One final reason why Kurt Rothschild will stay in our memory is that he did not present a complete, bounded and self-contained theory, but that he pinpointed problems in societies as well as shortcomings in theories. Each narrow theory will be wrong under most circumstances.*

He forgave economists for not predicting the recent financial crisis. The extent of the crisis was disadvantageous for many people and a failure for economists. But Kurt Rothschild's redemptory assessment would change into incomprehension, if some economists proclaimed to explain the occurrence of the crisis using their own narrow theory (be it neoclassical or one-sided in any other narcissistic fashion). And he would become angry (and slam doors again) if economists did not change their policy prescription in the wake of the crisis, if regulators did not change rules, and if the forecasters did not change their model.

But mildness plus the curiosity to raise questions, positive and encouraging contributions, respect for the limits of knowledge as well as of policy were the dominant reactions, and they will last longer. As will our memory of Kurt Rothschild.

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