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## **Kenneth J. Arrow [Ideological Profiles of the Economics Laureates]**

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### **Abstract**

Kenneth J. Arrow is among the 71 individuals who were awarded the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel between 1969 and 2012. This ideological profile is part of the project called “The Ideological Migration of the Economics Laureates,” which fills [the September 2013 issue of \*Econ Journal Watch\*](#).

### **Keywords**

Classical liberalism, economists, Nobel Prize in economics, ideology, ideological migration, intellectual biography.

### **JEL classification**

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# Kenneth J. Arrow

by Daniel B. Klein

Ross Starr begins his article on Kenneth Arrow (1921–) in *The New Palgrave Dictionary of Economics* by saying that he “is a legendary figure, with an enormous range of contributions to 20th-century economics.... His impact is suggested by the number of major ideas that bear his name: Arrow’s Theorem, the Arrow-Debreu model, the Arrow-Pratt index of risk aversion, and Arrow securities” (Starr 2008). Besides the four areas alluded to in the quotation from Starr, Arrow has been a leader in the economics of information. In 1972, at the age of 51 (still the youngest ever), Arrow shared the Nobel Prize in economics with John Hicks for their contributions to general economic equilibrium theory and welfare theory. But if the Nobel economics prize were given for specific accomplishments, and an individual could win repeatedly, Arrow would surely have several. It has been shown that Arrow is the economics laureate who has been most cited within the Nobel award lectures of the economics laureates (Skarbek 2009).

Kenneth Arrow was of the generation shaped by the Great Depression. Like many of them, he embraced socialism at an early age, and going forward his work was shaped by a deeply leftist sensibility. From several autobiographical reflections, it seems that over the decades Arrow’s thinking has continually moved from ideals he associates with socialism to a more pragmatic—or, perhaps, resigned—sense of reforming actually existing social democracy.

Arrow was born and educated in New York City, and his family struggled during the Great Depression. He attended City College in New York, which was free (Arrow 1992/1973). A mathematics major, he attempted to pursue a career as a high school teacher. When he found that market flooded, he went to Columbia University to study statistics and discovered the economics professor Harold Hotelling (Starr 2008). Taking Hotelling’s course on mathematical economics, Arrow “realized I had found my niche” (Arrow 1995a, 45). At Columbia, Arrow earned his M.A. in mathematics and entered the Ph.D. program in economics, but World War II put his studies on hold; from 1942–1946, he served as a weather officer in the U.S. Army Air Corps (Arrow 1992/1973). Returning to civilian life, Arrow continued his graduate work and in 1947 worked at the Cowles Commission in Chicago. During several summers, he worked at the RAND Corporation. Arrow completed his Ph.D. in 1951. In 1949, he joined the faculty at Stanford University, where he would stay for all but a decade of his career, that decade being spent at Harvard. Arrow was on the research staff of President John F. Kennedy’s Council of Economic Advisers.

## IDEOLOGICAL PROFILES OF THE ECONOMICS LAUREATES

In a famous paper on healthcare, Arrow (1963) explored ways in which services, practices, and institutions do not obey certain models. The paper, published in the *American Economic Review*, has been significant in legitimating and authorizing the practice of elaborating how economic affairs in a particular industry or sector are therefore ‘imperfect’ and not ‘competitive,’ and constitute ‘failure.’ In more recent years, Arrow has treated such topics as malaria prevention (Arrow, Panosian, and Gelband 2004) and climate change (Arrow 2007) as examples of market failures. For an overview of Arrow’s astounding series of seminal works, dating especially from the early 1950s, see Starr’s fine entry in the *New Palgrave*.

Professor Arrow generously responded to our questionnaire. His response follows:

I have some trouble defining what is my “ideology,” and how is it manifest in my scholarly or other behavior. I have and have had a set of values. I don’t think they have changed in a fundamental sense, but the changing issues in society have certainly led to different emphases.

In some sense, underlying any ideology has been an epistemology, one which has emphasized the uncertainty of knowledge and the difficulties of communicating it. This has always inhibited any extreme commitment on my part to a set of values or to a policy; there is always something on the other side. It has led, in part, to a preference for well-formulated problems (this is a limitation, not a boast), where at least what I am saying is clear.

To the extent that I have strong moral commitments, they are freedom for all humans and a respect for the values and opinions of others. With regard to the first, under the heading of freedom, I include economic viability (income, in a modern economy). The freedom to make choices in a market economy demands the ability to choose jobs and goods. I therefore have a built-in belief that reducing income inequality is not in contradiction to economic freedom but part of it. More concretely I found race discrimination, perfectly open in my younger days, to be an evil even if grounded in widespread popular support.

I was rather precocious intellectually and lived in an era where good students were encouraged to accelerate. I graduated college before I was 19. My parents were very engaged in the news of the day and, in particular, political news, and current politics would be discussed at the dinner table, certainly from the time I was 10 or 11. They were centrists and became admirers of Franklin Roosevelt, my

mother very enthusiastically so, my father with his characteristic cynicism.

Living during the Great Depression, which affected us personally, I early regarded myself as a socialist (say from age 12 on). However, almost as soon as I thought about it, I found the Soviet Union to be a vicious tyranny, especially as manifested in the show trials (of the old Bolsheviks). These views remained about constant until my college graduation in 1940. When I started graduate study, I intended to become a statistician and enrolled at Columbia where Harold Hotelling taught. However, there was no department of statistics, so I had to enroll in Economics, Hotelling's department. He gave a course in mathematical economics, and this started the process by which my primary interests shifted towards economics proper. Hotelling himself was a socialist, though one who emphasized the role of the market even under socialism, so my previous views were reinforced and clarified. (I should note that Hotelling never attempted to influence anyone's views; I learned his views from his written work.) These certainly influenced my work (alone and with others) on general equilibrium as an ideal to be achieved by a mixture of private enterprise and public planning and regulation; much of this was embodied in my joint work with Leonid Hurwicz, collected in Arrow and Hurwicz, *Studies in Resource Allocation Processes*, Cambridge University Press, 1977.

After returning to graduate study from military service, I found a growing prosperity. My general views shifted to planning in mixed economies, such as seemed to be emerging in Europe. I gradually realized over the following decade that the European planning was largely illusory. On the other hand, the idea that the market could solve all problems seemed to me patently false on thoroughly sound neoclassical arguments. From a policy viewpoint, my attitude ("ideology" seems too grand a term) was essentially that of benefit-cost analysis. State measures could be and frequently were useful, but their outcomes had to be compared with the alternatives. No simple slogans could give useful answers. I tended thereafter to concentrate from the policy viewpoint on the role of public investment; a representative technical work is my book with Mordecai Kurz, *Public Investment, The Rate of Return, and Optimal Fiscal Policy*, Johns Hopkins, 1970. Two popular articles which give some idea of my point of view are, "A Cautious Case for Socialism," *Dissent*, Fall, 1978, pp. 472-80, and, "Two Cheers for Regulation," *Harper's*, 1981, #262, pp. 18-22 (I am not responsible for either title).

My research also tended to concentrate on well-defined specific issues, whether it was social choice, medical care, or inventory policy.

Certainly, my thinking has evolved by observation and analysis, as I hope it should have. But it has not been altered in its essence. (Arrow 2013)

Here I follow up on the two articles that Arrow cites, especially the 1978 article that appeared in *Dissent*, a journal of leftist thought and commentary.

“A Cautious Case for Socialism” is the text of Arrow’s April 1978 Lionel Trilling Seminar lecture at Columbia University. In his response to our questionnaire (and in Arrow 1995b), Arrow notes that he is not responsible for the article’s title. The piece, highly autobiographical, waffles between two overarching drifts: one, expressed by the title, is that of holding on to socialist ideology but proceeding cautiously; the other is to let go of socialist ideology and come round to a more practical outlook of accepting, if not celebrating, capitalism under social democracy, and managing the mixed economy. As I say, the piece waffles between the two. We will see that, three years later, in the 1981 piece, Arrow seems to be more settled on the practical outlook—and thereafter, it seems to me, he continues on that way.

The side of the article that seems to fit the title, “A Cautious Case for Socialism,” proceeds with autobiographical information about the young Arrow’s impressions and reflections on “the rottenness of the times,” “the system and its failure. They seemed obvious enough” (Arrow 1978, 472-473). He knew that “a social system, political or economic, however bad its consequences, will be replaced only if there is a vision of a better system. The idea of socialism was easily available. . . . Surely, a rationally organized, centrally coordinated economic system could avoid the instability of the capitalist economy and the terrible human and material cost of unemployment” (ibid., 473). He continues: “Further, there was such an economy. The Soviet Union was building and expanding, there was no unemployment, at a time when the advanced capitalist economies were spiraling downward or at best stagnating. The *New York Times* was the source of this favorable information, much more to be believed than the Communist party pamphlets passed out on the streets” (ibid.).

Arrow explains the development of his understanding of “capitalism”:

I was never a Marxist in any literal sense, unlike a great many of my fellow students at the City College, in New York. . . . Nevertheless, the insight Marxist theory gave into history and particularly as to political events was striking: the state as the executive committee of the bourgeoisie, the class interpretation of political and social conflicts,

and the interpretation of war and imperialism as the conflict of competing national capitalist interests were illuminating and powerful. It appeared more profound than the alternative versions of the economic interpretation of history; they seemed to be mere muckraking, the behavior of venal individuals. Marxism put the system rather than the individual into the foreground. (Arrow 1978, 473-474)

The freedom of workers seemed to me much restricted. Strike-breaking by fairly direct and brutal methods, as well as more subtle forms of economic pressure, was a common event. Even apart from overt conflict, the regular operation of the factory appeared as a form of regimentation and a denial of individual freedom—an implication then widely accepted, expressed in such movies as Chaplin's *Modern Times* and Rene Clair's *A Nous La Liberté* and, more subtly and profoundly, in Lewis Mumford's *Technics and Civilisation*, then very famous and still worthy of reading. (ibid., 474)

Arrow describes his notion of “capitalism”:

[T]here was a strong antipathy to an economic and social system based on selfish and competing motivations. I eagerly sought confirmation in the works of contemporary anthropology, such as Margaret Mead's *Sex and Temperament in Three Primitive Societies*, for the proposition that cooperation was at least as natural as competition. (Arrow 1978, 475)

Arrow says his “underlying assumption was the common humanity of ruler and ruled; the appeals to cooperative and altruistic motives seemed to have at least some success as against the simply selfish exercise of power” (1978, 475).

Expressing his current (1978) attitudes, Arrow also describes his notion of “laissez-faire”:

The model *laissez-faire* world of total self-interest would not survive for ten minutes; its actual working depends upon an intricate network of reciprocal obligations, even among competing firms and individuals. But the capitalist system is structured so as to minimize cooperative endeavor. The worker is a factor of production, a purchased item, not part of a team. (Arrow 1978, 477)

Arrow's remarks, in my view, exemplify the deep-leftist mentality, combining the lurid “capitalism” and a mutually constitutive conclusion that community and

cooperation are most meaningfully found in the governmentalization of social affairs.

“As for inequality of income,” Arrow writes, “I took it for granted that it would be reduced under socialism by the abolition of the income category of profits” (1978, 475). He adds: “Many current thinkers object to distributive equality on principle, on the grounds that it contradicts freedom of property. This is a large subject; I simply state my conviction that property is itself a social contrivance and cannot be taken as an ultimate value” (ibid., 477). Whether distributive equality can be taken as an ultimate value is something that Arrow does not make clear.

As in his response to our questionnaire, Arrow is remarkably candid about how socialist ideology shaped his work in neoclassical economics:

I became seriously interested in the study of economics only after beginning graduate study around 1940. Needless to say, learning something of the workings of the economic system and of the logic of neoclassical economics had a considerable effect on my attitude toward socialism. ... My immediate reaction was to interpret neoclassical economic theory and particularly the then new and rapidly developing discipline of welfare economics as pointing to an ideal efficient economy rather than the actual one, marked both by massive unemployment and by monopolistic distortion. Socialism was the way in which the ideal market was to be achieved. This doctrine was held by many, including especially the professor here at Columbia to whom I owe so much, both intellectually and personally, Harold Hotelling. Graduate education in economics at Columbia at the time, just before our entrance into World War II, seemed curiously designed to emphasize the ideal nature of neoclassical theory. The dominating voices, Wesley Mitchell, J. M. Clark, and Arthur F. Burns, held that neoclassical theory had little descriptive value. Though Clark and Burns, at least, certainly had no support for socialism, their views, when taken into conjunction with the theorems of welfare economics, resonated with my conviction that socialism could yield a more efficient economy. (Arrow 1978, 476)

Arrow enlarges on his views of different systems, as seen at the time:

In the ideal theory of the competitive economy, market-clearing prices serve as the communication links that bring into coherence the widely dispersed knowledge about the needs and production possibilities of the members of the economy. In the absence of suitable markets, other

coordinating and communicating mechanisms are needed for efficiency. These come close to defining the socialist economy, although admittedly wide variations in the meaning of that expression are possible.

[... T]he existence of idle resources is a prime example of coordination failure. The experience of the Communist countries bears on this point. With all their difficulties and inefficiencies, and they are not few, recurrent or prolonged unemployment is not one. A graph of economic activity in the United States is, under the best of circumstances, jagged and spasmodic, that of the Soviet Union much smoother. Fluctuations there are, as there must be in any complex dynamic system. But the planning, however inept, serves to keep the basic resources and their uses in line.

The sophisticated antisocialist reply to this argument is not to deny it but to emphasize that a socialist system is not an ideal resource-allocating mechanism either. Much is made of the obvious inefficiencies of the Communist countries, though the Soviet growth rate and technical development has on occasion caused fear and trembling and overall still averages above the United States rate. As all too frequently happens in the social sciences, no clear-cut dominance pattern of efficiency can be found either way. All that can be said is that socialism is clearly a viable economic system, contrary to what many would have asserted in the not-too-distant past, and it does not release energies and productivity far beyond the capitalist norm. (Arrow 1978, 478)

Throughout “A Cautious Case for Socialism,” then, there is a side that holds on to deep-leftist thinking. Meanwhile, also running through the entire essay, is the side that says maybe it is time to stop holding on. In the first paragraph, Arrow writes: “There is an ancient warning: ‘Be careful what you dream of when young; your dream may come true!’” (1978, 472). After telling of his earliest years, Arrow writes: “From the perspective of greater education and experience and with 40 years of history, my understanding of the relation between these values and the desirability of socialism has altered. Many countervailing considerations have been raised by further analysis and knowledge of the facts” (ibid., 475). He explains how his study of neoclassical economics led his thinking to evolve:

[T]he development of Keynesian economics and, after the war, its gradually increasing application changed the nature of the efficiency discussion. In true Hegelian fashion, capitalist instability and the



socialist counterattack seemed to be synthesized: it seemed possible to have an economy that retained much of capitalist drive and initiative and yet gave room for the government to intervene to avoid at least the worst inefficiencies of unemployment and the idling of other resources. I accepted provisionally what seemed to be a widespread consensus in the euphoria of postwar economic growth. The state had an active role to play in maintaining effective demand and in dealing with the many imperfections of the market system revealed by theoretical welfare economics—the overcoming of market failures and monopoly and the realization of economies of scale. These interventions should take the form of relatively impersonal measures, taxes and expenditures, rather than detailed controls and direct regulation. The higher taxes meant that the government was automatically engaged in redistributing, and some of us felt that it should go much further. (Arrow 1978, 476)

But Arrow makes clear that he likes the idea of a democratic socialism:

I have spoken of a provisional acceptance. I still felt it important to explore more deeply the possibility that socialism was a superior possibility. I was more aware of the complexities of operation of a socialist system and sought to develop more deeply the theory of such a system. I also sought to explore more fully the criteria for a democratic social organization. (Arrow 1978, 476-477)

Arrow explains his thinking: “So long as the state power can be democratically run, much of this distortion of the democratic process should be minimized under socialism” (1978, 479). But he then turns to the premise—of state power being democratically run. He says that Joseph Schumpeter and Friedrich Hayek have a good point that state power is a threat to democracy. He makes some counterarguments and then concludes that issue as follows:

There can be no complete conviction on this score until we can observe a viable democratic socialist society. But we certainly need not fear that gradual moves toward increasing government intervention or other forms of social experimentation will lead to an irreversible slide to “serfdom.” (Arrow 1978, 480)

Arrow then concludes “A Cautious Case for Socialism” with a final paragraph that plainly confesses his waffling between two different perspectives throughout the lecture:

It would be a pleasure to end this lecture with a rousing affirmation one way or the other. But as T. S. Eliot told us, that is not “how the world will end.” Experiment *is* perilous, but it is not given to us to refrain from the attempt. (Arrow 1978, 480)

Before we turn to the other piece that Arrow points to in his questionnaire response, note that as late as in 1974, Arrow expressed hope that new technologies would deliver the long-sought means needed for national economic planning. He wrote: “Indeed, with the development of mathematical programming and high-speed computers, the centralized alternative no longer appears preposterous. After all, it would appear that one could mimic the workings of a decentralized system by an appropriately chosen centralized algorithm” (Arrow 1974, 5).

Three years after “A Cautious Case for Socialism,” Arrow published in *Harper’s* magazine the other piece pointed to, “Two Cheers for Government Regulation” (Arrow 1981). The piece would seem to demonstrate that Arrow had let go of a deep-left selfhood. The piece engages the call of the day, the call for reform in classical liberal directions (which, in the piece, he associates especially with Milton Friedman and Ronald Reagan), and in a respectful way. He says the trend has much merit. But, he says, by and large, the status quo is justifiable, and government’s role should be augmented about as much as it should be reduced. The following quotations express the overarching attitude:

I do not agree that there is any reason to reduce the scope of government activity within the foreseeable future if our aim is a better economic, social, and physical life. ... Like political democracy, to which it is so closely linked, the mixed economy has much to answer for; it is merely less bad than its alternatives. (Arrow 1981, 19)

The endurance of the social order, the sense that we are all members of one another, is vital to the meaning of civilization. Such a notion is essential to the free enterprise system itself, which cannot flourish without a social structure. (ibid., 20)

[Social Security’s] financing may indeed create serious (though by no means insurmountable) problems in the future, as the percentage of retired workers rises. A modest raising of the retirement age, fully justified by the American people’s improved health, would solve them. ... [Studies show] that the anti-poverty programs of the 1960s and the social security programs as they have evolved have in fact been very successful, and repudiation of them does not seem called for. (ibid., 21)

There is no denying that these criticisms have some truth in them. The market, when it works, creates more pressure for efficiency, for innovation, and for the best use of technology for the desires of users. But most of what the government does is beyond the province of private business. (ibid., 22)

Let me repeat: I favor decontrolling oil prices. ... This story is designed to be evenhanded, but it shows that the government's role has never been negligible, although it has probably been bad more often than good. ... As I have repeatedly noted, allocation through prices is more efficient, and takes better account of individual circumstances, than does regulation. When the government does intervene, it can use pricelike mechanisms. ... The way the government intervenes in the economy has changed and should continue to change. Old functions become useless and pernicious, new needs emerge. But the general level of government intervention is likely to remain basically unchanged for the next decade, and it is in the general interest that it should do so. (ibid., 22)

It seems fair to say that Arrow, going forward from 1981, grows more accepting of the status quo mixed economy, showing support for policy positions like one would expect from an interventionist Democratic economist. A 1995 interview in *The Region*, published by the Minneapolis Fed, contains some interesting material:

**Arrow:** I think on the efficiency level, not only the distribution level, capitalism is a flawed system. It probably has the same virtues as Churchill attributed to democracy: It's the worst system except for any other. And I think that's right, but it cannot be thought that some unmitigated belief in free markets is a cure even from the efficiency point of view. ...

**Arrow:** ... The intrinsic social structure, the family structure and so forth, is certainly in a very bad state. And I think that this is showing up in productivity. I think part of the reason, and I can't prove this, we're seeing a decline in some places is the breakup of the family, which is partly the result of an extreme form of individualism.

**Region:** Do you feel that intervention on the part of the state would improve these matters? Education? Family?

**Arrow:** Education certainly. Education is still, in spite of private education, a state matter. Family is a difficult matter. I must admit I do

not know that the state can intervene successfully in a family. It's a fact that everything is connected with the individualist temperament, the kind of economic environment which stresses the individual, but this is not directly the result of a state policy, nor do I see any good way by which the state could intervene except in some marginal ways. ...

**Region:** Do you think that there is a role for regulation in policing such markets [that is, derivatives markets]?

**Arrow:** You'd have to have the standard sort of rules—essentially revelation principles. I am not really inclined to think there is any very effective regulation of the derivative securities markets that would be useful. People who go into it essentially ought to know what risks they're taking and I don't see any useful regulation. There is a bit of a problem with the match between derivative securities markets and the primary markets. We have long ago instituted principles, essentially high margin requirements, to prevent certain instabilities in the stock market, and I think they're basically correct. ...

**Region:** What would be the key features of a [healthcare] plan that you would propose, if given the opportunity?

**Arrow:** I think we need basically a single-payer system, that is a single-payer system for basic benefits. I think there's no way, and nor is it desirable, to prevent people from buying additional coverage. The financing, as is known already from Medicare and certainly from Social Security payments from a centralized system, can be done much more cheaply than when you have many competitive insurance plans. The reimbursement schedules become very costly. The cost of administering the present plans is large and there are big economies of scale.

Also, but more basic, issues of adverse selection disappear with a single-payer plan. If everybody's covered, there's no way of cherry picking, having plans that appeal to only particular groups, with all the distortions that accompany them. There is a possibility, and I think it's compatible to that plan to try to administer it through a competitive arrangement of one kind or another, that people can have choices of plans and compete where the reimbursement schedules are prearranged, and they can eventually get reductions in their premiums by choosing HMOs that are competitive. I think the principle of competitive supply as opposed to competitive financing is going to be a valuable one. ...

**Region:** Has the profession of economics changed much since you first started?

**Arrow:** ... The '50s was a very exciting period, probably because there were fewer of us and communication was a lot easier. I corresponded with Leo Hurwicz here at Minneapolis, for example. Part of it was we had all gone through the Cowles Commission in Chicago together and felt persecuted.

**Region:** Persecuted? Why?

**Arrow:** Some people at the University of Chicago thought this was all wild stuff. Milton Friedman was very much against it.

**Region:** Was very much against the Cowles Commission?

**Arrow:** We felt sort of bunched together. But we were kind of feared, too. It was a funny kind of being persecuted. We were persecuted, but we were taken seriously, even when we were just this little group, five or six people at Chicago.

**Region:** Who were the five or six?

**Arrow:** Well, of course, they rotated. There was Jacob Marschak, who was probably the most leading, Tjalling Koopmans, Lawrence Klein, Leo Hurwicz, and the statisticians—Theodore Anderson, Herman Rubin and Don Patinkin. I'm sure I'm forgetting somebody.

**Region:** Sounds like quite a group.

**Arrow:** Franco Modigliani spent a year there. He was more of a visitor. It was quite a group. And Gerard Debreu was later. I had left before he came. (Arrow 1995b)

Arrow has lent his name to numerous petitions: in favor of allowing prediction markets, opposing the Bush tax cuts, supporting an increase in the minimum wage, supporting augmentation of union privileges (“Employee Free Choice Act”), supporting government intervention to promote biofuels, supporting government-oriented healthcare, supporting John Kerry for president, supporting the individual mandate of the Affordable Care Act, and supporting the INFORM ACT (Hedengren et al. 2010; Pollack 2013; Kotlikoff 2013). On climate change, he advocates substantial reductions in carbon dioxide emissions (Arrow 2007). Arrow was one of four Nobel-winning economists to join an amicus brief in support of the section of the Patient Protection and Affordable Care Act that “requires, with certain exceptions, all Americans who can afford a minimum level of health insurance either purchase such insurance or pay a penalty to the United States Treasury” (Rosen et al. 2012, 1). Arrow responded to an online questionnaire about the Food and Drug Administration; he strongly supported the status-quo policy of “pre-market approval” (that is, having all new drugs and devices under a ban until individually permitted by the FDA), and he opposed the liberalizing reforms proposed by the questionnaire (Briggeman et al. 2010, A3-A6).

People are able to learn from Professor Arrow's selfhood and its evolution because he has generously disclosed it with candor and openness.

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## Robert J. Aumann

by Daniel B. Klein, Ryan Daza, and Hannah Mead

Robert Aumann (1930–) was born in Germany. As things got worse for Jews in Germany in the 1930s, the Aumann family emigrated to New York. Aumann recalled:

I was born in 1930 in Frankfurt, Germany, to an orthodox Jewish family. My father was a wholesale textile merchant, rather well to do. We got away in 1938. Actually we had planned to leave already when Hitler came to power in 1933, but for one reason or another the emigration was cancelled and people convinced my parents that it wasn't so bad; it will be okay, this thing will blow over. The German people will not allow such a madman to take over, etc., etc. A well-known story. But it illustrates that when one is in the middle of things it is very, very difficult to see the future. Things seem clear in hindsight, but in the middle of the crisis they are very murky. (Aumann 2005, 708)

He continued:

We left Germany, and made our way to the United States; we got an immigration visa with some difficulty. In this passage, my parents lost all their money. They had to work extremely hard in the United States