

August 11, 1993

Gordon Rausser
Robert Gordon Sproul
Distinguished Professor of Agricultural
and Resource Economics
University of California-Berkeley

Dear Gordon:

As we have discussed, I am applying for Faculty Improvement Leave from Iowa State for the academic year 1994-95. I would like the opportunity to spend at least part of that period in your Department.

The purpose of my leave is to write my second treatise. As you know, I have been thinking about fundamentals for a long time. In recent years my ideas have been knitting together at an accelerating rate, to the point where they are about ready to be set down in coherent form. I believe they will change the way we think about and practice both economic theory and statistics (including econometrics as a special case of the latter).

Here is a (desperately abbreviated) outline of my ideas. In statistical theory, I aim to complete the program of decision theory, (Wald, et al), which conceives all of statistical inference as an aid to policy-making in an uncertain world. To do this, certain costs must be considered which have been ignored in Wald's work - in particular, complexity costs arising from the limited capacity of the human mind. This constitutes the so-called "post-Bayesian" approach whose entire literature consists of our single co-authored article (1976).

What was lacking in 1976 was a good theory of the time-structure of the relevant costs, especially inaccuracy costs. This theory is now developing as part of my overall program, from capital theory and a correct understanding of the causality concept. (The latter also has pejorative implications for simultaneous equation models on the one hand and Sims-type atheoretical model on the other. In fact a thorough critique of the whole range of econometrics is in order. Much of it is unsound.)

I turn now to economic theory. First, there are problems of scope. Taking general equilibrium theory as the central core of the subject, all the following are taken as given: the number of agents, with their preferences and endowments; the number of firms, with their technologies; and the number and types of commodities, as they enter into preferences and technologies. In reality, all of these factors should be endogenous: Population growth, taste formation, inheritance, the creation of firms, new products, etc.,

are all part of the economic process, and should all be explainable as part of a more comprehensive economic theory. The theory I am developing does just this.

Second, there are problems of precision - that is, how well the usual concepts of economic theory match the real world. Do all commodities have markets? As often noted, the answer is "no" for most future commodities, but it is also "no" for intermediate goods (e.g. half-built cars). Whether a market exists is itself the outcome of an economic process, and should be modeled endogenously. Is the rationality postulate valid? The limited capacity of the human mind for holding and processing information suggests that rationality is itself limited. The amount of resources devoted to mental effort is itself an economic problem, and should be modeled endogenously. Are frictions, arising in communications and transactions in general, important? Well, yes. For one thing, they explain the existence of money, always a problem in general equilibrium theory. For another, by pointing to the costs involved in negotiations, they indicate that which agreements get made, which organizations get formed are themselves economic problems to be modeled endogenously. Thus frictions provide a key for a unified theory of imperfect competition and "political economy" in general. For still another thing, the cost of communication forces a scarcity value on information, and puts uncertainty and probability at the very heart of economic theory.

I will give only the sketchiest outline of where my ideas come from. Capital theory becomes the central core of economic theory, embracing all resources - capital goods proper, of course, land, and human resources, as in human capital theory in the strong (Becker) sense which includes reproduction. The natural selection argument properly formulated - which applied to any dynamical system and is not confined to biology and genetics - is a powerful tool for endogenizing things. Taking seriously the idea that all resources are tied into a causal nexus over time and space is essential, as is the clarification of the foundations of probability.

The hard part is to put all these ideas together. To mix metaphors, juggling all these balls at once attains a critical mass yielding an accelerating chain reaction. That is the stage I am at.

Cordially yours,

Arnold Faden