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7 October 1986

Alfred S Eichner
CEAR
79 Everett Street
Closter, NJ 07624

Dear Dr Eichner:

Since we talked on the telephone, the enclosed comment from Cambridge has come to light. Does this change in any way the letter that you wish to see published? If not, I will go ahead and publish them together in the same issue of Nature.

Yours sincerely,



John Maddox
Editor

CEAR

THE CENTER FOR ECONOMIC AND ANTHROPOGENIC RESEARCH
79 EVERETT STREET
CLOSTER, NEW JERSEY 07624

October 14, 1986

John Maddox, Editor
Nature
4 Little Essex Street
London WC2R 3LF
U.K.

Dear Mr. Maddox,

I consider the rejoinder which I submitted last February to still be an appropriate response to the Dasgupta-Hahn comments published a year ago in Nature. But now, in reply to that as yet unpublished rejoinder, Hahn and Dasgupta have submitted a new set of comments which you say you are thinking of publishing alongside my rejoinder. Since this would permit the latest set of comments by the two Cambridge professors to go unchallenged, I am not sure this is the best way to proceed in bringing to an end the debate within the pages of Nature.

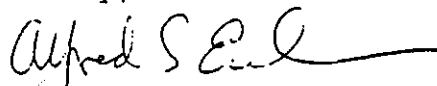
In their latest comments Hahn and Dasgupta have responded to my questioning whether the four theoretical constructs which underlie the prevailing paradigm in economics have any basis in reality by redefining two of those constructs in more general terms so that a) they no longer have any informational content and b) the other two theoretical constructs then do not matter. Thus the ordering of consumer preferences based on subjective utility or some other unobservable characteristic of the goods--the approach more typically taken by economists in explaining the demand for different goods--is replaced by the more general statement that preferences are simply ordered, without saying what the ordering is based on. Similarly, the positing of two or more inputs which can be used in varying proportions to produce the same quantity of output--the approach more typically taken by economists in explaining how the supply of different goods is determined--is replaced by the more general statement that various inputs are needed in the production process, without specifying the extent to which any one of those inputs can be substituted for another. These statements can no longer be challenged on empirical grounds because, encompassing as they do all possible cases and therefore not capable of being false, they have virtually no informational content. We are told that there are consumption and production functions--a statement no one observer of economic processes would dispute--but what form those functions take is left unexplained, at least by Hahn and Dasgupta. Not many economists would recognize these two statements, in the general form in which they are made by Hahn and Dasgupta, as a faithful representation of the prevailing theory in economics.

Even more significant, I do not believe many economists would view such statements, since they are little more than truisms, as offering hope of progress in the study and understanding of economic phenomena.

I am not quite sure what is the best way to proceed from this point on so as to give Hahn-Dasgupta and me the opportunity to fully present our views. While I would be willing to see if Hahn-Dasgupta and I could agree on what it is that we disagree about, I would not want to wait another six months or more for my rejoinder to their initial comments to be published. I would also want Hahn-Dasgupta to indicate what are the empirically observable phenomena denoted by the u , x and y variables in their equations. However, it may well be that this is not practical and that the best solution is to publish both my rejoinder and their latest comments, together with the above paragraph or some revision thereof in response just below.

I am sorry for the trouble my article has caused and hope it will now be possible to put the matter to rest without too much further ado. I thank you for your patience.

Sincerely,

A handwritten signature in cursive script that reads "Alfred S. Eichner". The signature is written in dark ink and has a long, sweeping horizontal line extending to the right.

Alfred S. Eichner

(1) ^{cc} Indifferent Curves. The basic postulate is that the consumer has an ordering of the commodity space (C) by a relation "R". Thus for x, x' in C, xRx' means that x is preferred or indifferent to x' . It is a theorem that if this ordering is continuous it has a numerical representation $u(x)$ which is invariant up to a monotone transformation. That is $u(x) > u(x')$ if and only if xRx' and not $x'Rx$ while $u(x) = u(x')$ if and only if xRx' and $x'Rx$. An indifference surface is defined by the set of x such that $u(x) = \bar{u}$. This exists only if a numerical representation exists. If it does not (e.g. with a strong ordering) there is no part of economic theory which Eichner discusses which is at risk. The fundamental postulate is not the existence of indifference but of an ordering.

(2) Isoquants. Economists define a firm's technical knowledge by a production set which lists all production activities which are now known to it. From this "book of blueprints" one derives a production function for a single output firm, $y = f(x)$ where $x = (x_1 \dots x_n)$ is a vector of inputs and y is the output. The function gives all efficient activities, that is all activities such that there is not another one known which produces the same output with less of some input and not more of any. An "isoquant" is the set of x for which $F(x) = \text{constant}$. It is not the fundamental element of the theory. That is the production set. One can deal with changes in knowledge over time. One can also deal with increasing returns.

(3) The marginal product of capital. No part of rigorous theory either uses or needs this concept so it is not worth discussing.

(4) Upward-sloping curve of labour. We have nothing to add to what we said in our original reply:

(5) Empirical content. Professor Eichner does not seem to understand that statistical inference which is what economic research must use requires a great deal of very precise theory. The theory which he attacks has been extensively used for this purpose, sometimes with success. But our point was not concerned with this general methodological problem or with maintaining that our present theory was satisfactory. Rather it was that Professor Eichner did not seem either to know or understand the theory so that whatever he had to say on the general matter was of no interest.

(6) Professor Eichner suggests that voices, such as his, are unheeded by the economics profession and for this reason he has had to turn to the pages of Nature. That he is not heard of by the profession is no surprise. But his suggestion that he needs a forum is not quite true. He has aired his views before in public. His published piece in Nature, titled "The Lack of Progress in Economics", was in fact a precis (with many common paragraphs) of an article titled "The Lack of Progress in Economics", which appeared in a book of essays edited by Professor Eichner (Macmillan (London), 1983), titled: "The Lack of Progress in Economics"! Perhaps readers of Nature could be spared all this and were instead asked, if they were interested in Eichner's views, to buy a copy of his edited volume.