THRESHOLD IN CHOICE AND THE THEORY OF DEMAND[1]

By Nicholas Georgescu-Roegen

1. The question why the starting point in the modern analysis of market phenomena is not Demand but Choice, may only seem idle. For in favor of taking Demand as the fundamental concept of this analysis, one may invoke the fact that Demand, in contrast with Choice, relates the two basic coordinates which constitute the primary concern of the economist. Even the theory of the consumer can be entirely cast in terms of Demand alone: P. A. Samuelson's theory of Revealed Preference needs only a little amending for the completion of this project. Clearly, it would not help to argue that the ensuing theory stops short of explaining the consumer's acts. If economics were supposed to offer such an explanation, the theory of choice would not suffice either: economics should then cover the physiology of our biological and cultural wants. Actually, the cognitional algorithm would never end, and economics would have to become *the* science.

The *raison d'être* of the theory of choice as a chapter of economics is above all the simplification it brings to the theory of demand. True, both the map describing the consumer's behavior in terms of Choice and that describing the same thing in terms of Demand, consist of a one-parameter family of curves: for two commodities, for instance, the theory of choice leads to the curves $u(x_1 , x_2) = k$, the theory of demand, to $x_1 = D(r, I)$, where r is the exchange-ratio and I the income measured in *numéraire*. Yet the indifference map is not only the simpler but of the simplest type possible: the curves do not intersect and, what is more, all display the same shape-uniformity. In contrast with this, the shape of demand curves may vary broadly, and the curves may even interesect each other in the region where X_1 is an inferior good. Simplicity, however, is the concern of all scientific disciplines, not only because a simpler framework helps theorizing, but also because such a frame reduces the amount of observations necessary to determine any individual structure. Thus, because of the simple structure of the indifference map, considerably fewer observations are needed to obtain an approximate drawing of this map by experiment than would be necessary for the map of all demand curves. It is important to note also that the types of questions asked of the consumer in the two experiments differ fundamentally. For the indifference map, it is sufficient to find out the result of *binary choices*, i.e., choices between any two points of the commodity space. In the experiment for determining the demand curves, the question "How much would you buy at the price p?" requires the consumer to name a quantity, unless we would be prepared to increase further the number of observations by asking instead "Would you buy more or less than x_1 at the price p?"

The argument in favor of the theory of choice collapses, however, if the in-

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