

A NOTE ON NOZICK'S PROBLEM

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ABSTRACT: This short note is a contribution to the solution of the problem of indifference in Austrian economics (“Nozick’s problem”). The problem is divided into two questions: (i) Can the stock of a commodity be defined without a reference to indifference? (ii) What is the praxeological interpretation of the fact that one unit of a homogenous stock is chosen over another? It is argued that the answer to the former question is negative; in the answer to the latter question it is demonstrated that indifference can already be included in the description of choice alternatives and strict preference ordering on the set of these alternatives can thus be preserved.

KEYWORDS: indifference, choice theory, methodology

JEL CLASSIFICATION: B40, B53, D01

Austrians traditionally claim that their theoretical analysis makes no use of the concept of indifference: it is considered impossible to demonstrate indifference in action; hence, it is not a praxeological concept. Nevertheless, according to Nozick (1977),

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the concept of the stock of a commodity (or (interchangeable) units of a commodity), which does play a role in praxeological analysis (it is necessary to formulate the law of marginal utility), implies the concept of indifference. Austrians are thus accused of using the concept implicitly. I will address this issue as "Nozick's problem."

There have been a number of attempts to solve Nozick's problem (Block, 1980; 2009a; 2009b; Hoppe, 2005; 2009; Machaj, 2007; O'Neill, 2010), yet the issue seems still to be unsettled. This note is another contribution to the discussion. I divide the problem into the two following questions: (i) Can the stock of a commodity be defined without a reference to indifference? (ii) What is the praxeological interpretation (i.e. interpretation in line with the concept of demonstrated preference) of the fact that one unit of a homogenous stock is chosen over another? It is precisely the second question which poses the main problem to the Austrian theory. This note therefore attempts to reformulate slightly the answer to this question given by Hoppe (2005). It argues that the choice alternatives an agent faces must be defined from his own point of view and not from that of an observer.

Let us start with the first question: can we define the concept of interchangeability in a non-psychological way, i.e. without employing the (psychological) concept of indifference? The answer seems to be negative (See Block, 1980, 2009b; Hoppe, 2005); nothing except a small taste in futile linguistic discussions prevents us from treating the following statements as equal:

- (S1) An individual i considers x and y as interchangeable.
- (S2) An individual i is indifferent between x and y .
- (S3) An individual i considers x and y as the same.
- (S4) An individual i considers x and y as homogeneous.

This conclusion, of course, raises some serious difficulties, in particular that regarding the status of the law of marginal utility as a praxeological law; nevertheless, I shall not pursue this particular issue here.

Having recognized the indispensability of the indifference concept, we may now address the second question, namely how

does an actor pass from indifference to action? How does he choose between units of a good? There seem to be three answers:

- (A1) Choice does not demonstrate a strict preference but a weak preference. (O'Neill, 2010). This answer simply accepts the concept of indifference.¹ It must, however, be complemented by the view that indifference does not mean incomparability: it is easy to choose in the former state, while it is impossible in the latter (Aumann, 1962, p. 446n; Elster, 1989, p. 32).
- (A2) An individual is indifferent only before the action and not during it; the choice reveals strict preference (Block, 1980).
- (A3) An individual does not choose between indifferent alternatives: if he is indifferent between x and y , then the choice of x and the choice of y are the same choices (Hoppe, 2005).

I will now argue in favor of (A3). In my view, the problem lies in the description of the opportunity set. Consider a consumer, who can afford only one of three sweaters. There are many ways to describe his opportunity set, for instance $\{red, blue, blue\}$, $\{pullover, cardigan, pullover\}$, $\{turtleneck, V-neck, crew neck\}$, $\{sweater, sweater, sweater\}$, etc. Which description shall we choose? It seems clear that we should choose the characteristic relevant to the decision maker (this is the "preferred interpretation" of which Hoppe (2005) speaks). Assume that he only cares about the color: he is then indifferent between the second and the third sweater. Does it make sense to differentiate between them at all, just because they differ in some (for him) irrelevant characteristics? It seems that it does not; hence, his opportunity set can be simply described as $\{red, blue\}$. The concept of indifference is thus "hidden" in the very description of the alternatives. Instead of saying that "an individual is indifferent between x and y ," we denote both alternatives with one symbol (say x) and consider it as *one* alternative.² The strict ordering can thus be preserved. This solution differs

¹ For an argument in favour of weak as opposed to strict ordering in the demand theory, see Hicks 1(1986).

² This is in line with Hayek's proposition as follows: "The objects of human activity, then, for the purposes of the social sciences are of the same or different kind, or belong to the same or different classes, not according to what we, the observers, know about the objects but according to what we think the observed person knows about it." (Hayek, 1943, p. 3). See also Rothbard (2004, p. 23).

from (A1) in the fact that the latter first describes the alternatives in language irrelevant to the decision maker (e.g. by the physical characteristics of the alternatives) and then defines (weak) preference ordering on this set. Hoppe's solution seems to both overcome the problem of indifference and simultaneously be in line with the principle of subjectivism. Nonetheless, it should be remembered that whether the (A1), (A2) or (A3) answer should be adopted will ultimately depend on the particular problem to which the theory is applied.

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