

ECONOMY, POLITICS, POLICY

PREFERENCE AND VALUE: LOGICAL SEPARATION OF CONCEPTS USED IN THE AUSTRIAN SCHOOL OF ECONOMIC THEORY

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Abstract

Present-day economic literature rooted in praxeological tradition (or Austrian economics) generally uses terms “preference” and “subjective value” as synonyms. Both are ways of expressing the idea of a subjective ordinal scale reflecting the fact that an acting individual (actor) compares some things and chooses the thing that is better from her subjective point of view. The fact that there are such comparisons is one of the logical premises of the theory. I try to show in this paper that there are two kinds of valuations in economic theory, that they are logically independent from one another and that they are subject to rather different logical principles. I propose to use terms preference and (subjective) value to denote these logically separate kinds of valuation, although I am not insistent on this wording.

Keywords: *preference; subjective value; economic theory.*

WHAT IS THE RATIONALE FOR MISES’S USE OF THE CONCEPT “SATISFACTION”?

It makes good sense to begin our analysis of various kinds of valuations being used in economic theory from a terminological riddle that seems to appear when reading Ludwig von Mises’s masterpiece *Human Action*. On the one hand, he defines praxeology as a pure logic of human action that consists of propositions not depending on the mental content of an actor’s mind, her motives, emotions and other psychic phenomena. Mises writes:

“The field of our science is human action, not the psychological events which result in an action. It is precisely this which distinguishes the general theory of human action,

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praxeology, from psychology. The theme of psychology is the internal events that result or can result in a definite action. The theme of praxeology is action as such.”².

“Praxeology is indifferent to the ultimate goals of action. Its findings are valid for all kinds of action irrespective of the ends aimed at. It is a science of means, not of ends.”³.

“The teachings of praxeology and economics are valid for every human action without regard to its underlying motives, causes, and goals.”⁴.

With this in mind, some readers would expect that Mises avoids usage of words and terms denoting psychic facts and phenomena in his theoretical reasoning. Nevertheless, we read almost immediately:

“We call contentment or satisfaction that state of a human being which does not and cannot result in any action. Acting man is eager to substitute a more satisfactory state-of-affairs for a less satisfactory. His mind imagines conditions which suit him better, and his action aims at bringing about this desired state. *The incentive that impels a man to act is always some uneasiness.*”⁵

In a few pages Mises develops this idea as follows:

“But action can only be imputed to a discontented being, and repeated action only to a being who lacks the power to remove his uneasiness once and for all at one stroke. An acting being is discontented and therefore not almighty. If he were contented, he would not act, and if he were almighty, he would have long since radically removed his discontent. For an all-powerful being there is no pressure to choose between various states of uneasiness; he is not under the necessity of acquiescing in the lesser evil. Omnipotence would mean the power to achieve everything and to enjoy full satisfaction without being restrained by any limitations. But this is incompatible with the very concept of action.”⁶

We can proceed to add additional quotes of both types, but the problem seems to be already obvious enough. These two ideas appear to be in contradiction to one another. On the one hand, Mises declares praxeology to be a formal and deductive science that does not consider psychological aspects of human action out of principle. On the one hand, he makes resort to the concept of “uneasiness/discontent” to explain the category of action, that is he uses a notion that is obviously psychological in nature because it describes a particular emotional motivation. How this apparent contradiction could be solved?

² von Mises, L. (1998) Human Action: A Treatise on Economics. Auburn, Alabama, The Ludwig von Mises Institute, 1998, 11—12. (Bulgarian Public Policy reader may consult the Bulgarian edition: Човешкото действие. Грактат по икономика. София, МАК, 2011 – EN.)

³ Ibid., p.15.

⁴ Ibid. p. 21.

⁵ Ibid., p.13. Emphasis added.

⁶ Ibid., p.69.

One possible approach consists of assumption that the collision is purely terminological: “eagerness to substitute a more satisfactory state of affairs for a less satisfactory” or “removing someone’s uneasiness” etc. are merely other names for human action⁷; they were introduced for “spelling out” of the praxeological insight of action and making it more comprehensible for a reader. But it is very doubtful that usage of a word with explicitly “psychologizing” meaning (in contradiction with declared approach) can make things clearer. If anything, it could add confusion. What is more important, such dismissing of a problem prevents discerning some meaningful content in Mises’ writings.

Perhaps one could find more plausible answer if one considers when and how Mises uses the notion “content/satisfaction” (or its logical counterpart “discontent-uneasiness-dissatisfaction”) in the course of development of his theory. The following quote from the section titled “Entrepreneurial Profit and Loss” sheds some light on this matter:

Profit, in a broader sense, is the gain derived from action; it is the increase in satisfaction (decrease in uneasiness) brought about; it is the difference between the higher value attached to the result attained and the lower value attached to the sacrifices made for its attainment; it is, in other words, yield minus costs. To make profit is invariably the aim sought by any action. If an action fails to attain the ends sought, yield either does not exceed costs or lags behind costs. In the latter case the outcome means a loss, a decrease in satisfaction.

Profit and loss in this original sense are psychic phenomena and as such are not open to measurement and a mode of expression which could convey to other people precise information concerning their intensity. [...]

We cannot even think of a state-of-affairs in which people act without the intention of attaining psychic profit and in which their actions result neither in psychic profit nor in psychic loss⁸.

Now, the concept of satisfaction (uneasiness) is used for definition of the concept of fundamental importance for economic theory: profit/loss. Note that Mises makes perfectly clear that profit and loss are psychic phenomena and as such – if we remember his definition of praxeology — apparently must not be a subject matter of the latter.

To be sure the fragment just quoted refers to the so-called psychic profit/loss, not monetary one. As to the latter Mises expounds:

In the market economy all those things that are bought and sold against money are marked with money prices. In the monetary calculus profit appears as a surplus of money received over money expended and loss as a surplus of money expended over money received. Profit and loss can be expressed in definite amounts of money. It is possible to ascertain in terms of money how much an individual has profited or lost. However, this is not a statement about this individual's psychic profit or loss. It is a

⁷ This line of reasoning is basically pursued in Michael Oliva Córdoba’s article “Uneasiness and Scarcity: An Analytic Approach Towards Ludwig von Mises’s Praxeology,” *Axiomathes* (2017) 27:521–529, DOI 10.1007/s10516-017-9352-4.

⁸ *Ibid.*, pp.286—287.

statement about a social phenomenon, about the individual's contribution to the societal effort as it is appraised by the other members of society. It does not tell us anything about the individual's increase or decrease in satisfaction or happiness. It merely reflects his fellow men's evaluation of his contribution to social cooperation. This evaluation is ultimately determined by the efforts of every member of society to attain the highest possible psychic profit. It is the resultant of the composite effect of all these people's subjective and personal value judgments as manifested in their conduct on the market. But it must not be confused with these value judgments as such.⁹

Here Mises argues that monetary profit should not be confused with psychic one. But it does not seem to be so simple here. If psychic view on profit has nothing to do with monetary one, then why Mises use one and the same word for them? It seems that the reason for such wording is that these two kinds of profit have something in common and this “common” has fundamental importance. As he writes elsewhere:

“If an individual speaks of the costs incurred by the purchase of some goods already acquired or to be incurred by the purchase of goods he plans to acquire, he expresses these costs in term of money. But this amount of money represents in his eyes the degree of satisfaction he could obtain by employing it for the acquisition of other goods. The valuation makes a detour, it goes via the appraisal of the structure of market prices; but it always aims finally at the comparison of alternative modes for the removal of felt uneasiness.”¹⁰

In other words, psychic and monetary profit are after all interconnected albeit indirectly. “Finally,” using Mises’s word, the cause of the very existence of monetary profit boils down to existence of psychic one. Now, the term “increase of satisfaction” (or “decrease of uneasiness”) came up in context of defining and discussing fundamental economic concept of profit/loss. This is not lapse or terminological redundancy.

Why could Mises not do without these seemingly “psychologizing” expressions? One could see the answer by abstraction from that part of the term that describes emotional condition (“satisfaction”) and turns to another part of it: “increase/decrease”. Note that both words describe *change in time*.

According to Mises’s definition cited above when a person evaluates profit or loss she compares either (a) the state of the world at the beginning of the particular action with the state of the world at the end of it, or (b) the valuation of the best of non-realized options from the set of options that have been available in the beginning of the action with the valuation of the state of the world at the end of the action (“the difference between the higher value attached to the result attained and the lower value attached to the sacrifices made for its attainment; [...] in other words, yield minus costs”).

⁹ Ibid., p.287.

¹⁰Ibid., p. 29.

There is, perhaps, some ambiguity stemming from “psychologizing” terminology. But under both interpretations when a subject of action evaluates profit/loss (or success/failure) she compares something of the past with something that exists in the present and ensues from her previous action.

To compare *A* that is in the past with *B* that is in the present (or in recent past) one needs to have at one’s disposal some ordinal scale wherein *A* and *B* could be meaningfully mapped. In other words, an acting person should be able to say meaningfully that *A* is better than *B* or vice versa. And the acting persons indeed can do this and are doing this even in situations where monetary valuation, i.e. economic calculation, of *A* and *B* is not possible or relevant.

We may say, therefore, that when an acting person evaluates profit/loss (or success/failure) of her action she have some “scale of comparison of states of the world” at hand. Mises styles the scale “satisfaction” or “contentment”. This verbal psychologization is unnecessary but the phenomenon surely exists.

Now, the analysis of Mises’s definitions and reasonings cited above leads to the following thesis:

Mises needs a concept of “an increase in satisfaction” (“decrease in uneasiness”) to make possible description of subjective comparisons of past and present states of the world by an acting person. Without such a concept it is impossible to define concepts of profit/loss (or success/failure), whether psychic or monetary. This kind of comparison is of fundamentally different nature than comparison of (future) alternatives that an actor does when she chooses the course of action.

In other words, “valuation” that brings about judgement on profit/loss (or success/failure) is logically rather different from the “valuation” according to which an actor chooses and executes her course of action.

The following sections present the logics of these two kinds of valuations in more formal manner.

THE LOGIC OF A SINGLE ACTION: PREFERENCE

Let’s consider a single action of a particular individual following the principle of methodological singularity formulated by Mises.¹¹ The graphic diagram of an individual human action is presented in Fig. 1. Of all aspects of it, the following are relevant for our purposes.

1) Action presupposes the existence of *possible alternatives for action*. Any alternative, or opportunity, is determined by the goals that a person can set for herself at the moment of action, and the means of achieving these goals. Alternatives are subjective in their nature, i.e. they exist as possibilities in an acting person’s mind, and precisely at the moment the action begins.

2) In action, a person makes a *choice*. Choice is the implementation of one alternative and the rejection of all others. Once the action begins, all alternatives except the actually

¹¹ See Human Action, Part One, II.5.

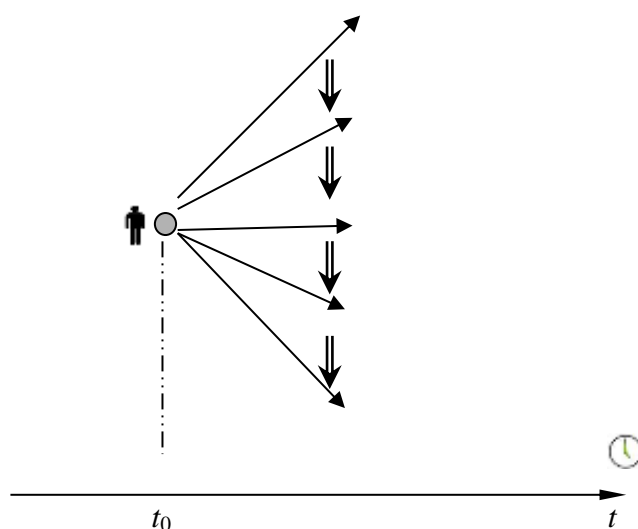
chosen one, cease to exist even as possibilities (in other words, all action alternatives except the actually chosen one are counterfactual).

In Fig. 1 the action alternatives that exist at the moment of choice are shown by thin solid lines with arrows, and the state of the world at the moment when the actor makes a choice is shown by a gray circle.

3) The action is directed to the *future*. An acting person can influence what will happen after the moment of action but is not able to change either the past or what is being immediately at the moment of action. All action alternatives at the moment of choice represent possible future (their time is *ex ante* time).

Fig. 1 shows the axis of physical (or historical) time, on which the moment of choice is designated by t_0 . The arrows corresponding to the choice alternatives point to the future.

Fig. 1. Moment of choice



4) The actor makes a certain *subjective comparative evaluation of alternatives* in her mind. This evaluation is usually called *preference(s)*. It expresses a “better-worse” relation between action alternatives from the actor’s point of view. Generally, not all alternatives are compared with each other by the actor. But since the action is after all realized, it is quite logical to presuppose that the preference relation is transitive (there is no “cyclical preferences”) and has a single maximum element, that is unique alternative that the actor prefers to all others.¹²

In Fig.1 this preference relation is shown by double-line arrows leading from more preferred alternatives to less preferred ones. This illustrative scheme corresponds to the classic example of a preference relation considered in economic literature, when alternatives represent different usages of the marginal unit of some economic good¹³. But the relation can have a different and rather tangled structure.

¹² In logic and mathematics, such a binary relation is usually called a strict preorder with one maximal element.

¹³ See, for instance, Eugen von Böhm-Bawerk, *The Positive Theory of Capital*, London: Macmillan and Co, 1891, Book III, Ch. III “Marginal Value,” esp. pp.149-151. In this case preferences are represented by a strict linear order relation.

It is important to emphasize that an actor's preferences are a relation between *alternative acts*, not between *states of the world*. Of course, it may happen that the actor compares in her mind those states of the world that she expects would result from this or that alternative - and this is her way of making comparisons between them. But it is not always the case.

For example, if the results of an action are determined not only by the chosen alternative itself, but also by the intervention of uncertainty, then the actor cannot choose among alternatives by comparison of future states of the world because there is no one-to-one correspondence between them and the alternatives. The actor must take into account in some way an assessment of the uncertainty associated with every course of action and compare some “arrays” of future possible worlds.

Another case is the following: an actor may prefer some alternatives to others merely on account of the pleasure of the action itself regardless of its results. Or the actor may follow some moral imperative: “Do what’s right, and come what may,” and so on.

Whatever the options, while the relationship of preference regarding alternative ways of action must necessarily exist in the mind of the actor, i.e. the statement about the existence of such a relationship is apodictically true, the connection of this relationship with actor’s assessments of the (future) states of the world, on the the contrary, is not apodictically given and is determined by the content of her mind and psyche (and therefore is not in itself the subject of praxeology).

5) The concept of choice is related to the notion of *opportunity cost* — the best of the alternatives set aside. This is another way to express the idea that an actor always chooses the best alternative from her own point of view. Opportunity cost is always counterfactual since it reflects subjective comparison between alternative ways of action made by the actor in the initial moment of action. Once the choice has been made and the action have begun opportunity cost ceases to exist together with dismissed alternatives.

Having thus characterized the basic structure of a single action, we now can move on to another basic structure which is necessary for interpreting the concept of profit/loss (success/failure).

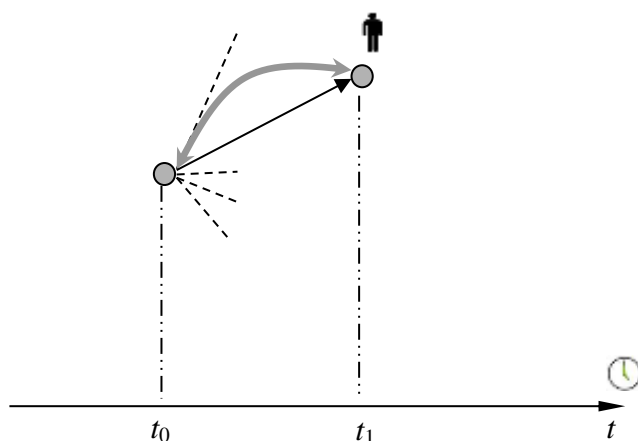
THE LOGIC OF EVALUATION OF AN ACTION’S OUTCOME: VALUE

Suppose that the action has already been done, and the actor now begins to comprehend and evaluate its results being in time point t_1 . She wants to determine whether the action was successful or unsuccessful. To do so she must compare two states of the world — the current state and some other. In the simplest case she may try to answer the question of whether her situation in the world has become better than it was at the beginning of the action. Or the actor may compare her actual situation at the moment t_1 with that that she expected to achieve. Another option: she can try to compare the actual state of the world with the state that, according to her assumptions, could have been achieved if she has chosen another alternative in the past.

Fig. 2 demonstrates graphically how such an evaluation process works in the case when the actor compares the actually-achieved state of the world with the state that actually existed in the moment of choice in the past. This is exactly the kind of mental “operation” that

Mises expresses by the words "increase/decrease in satisfaction". The actor has already moved along the time axis from the point t_0 to t_1 . The thin dotted lines originating at the past state of the world show the rejected alternatives and the corresponding counterfactual sequences of events. The thick gray arrow shows the better/worse relation between the states of the world, the current and the past. The gray arrow in the figure has two pointers meaning that the new state of the world may turn out to be either better or worse than the initial one. (In contrast, the thick arrows depicting the order relation in Fig.1 have one pointer meaning apodictically fixed preference order.)

Fig. 2. Evaluation process



Now, looking at the scheme in Fig.2 (or imagining its possible modifications if the actor has some more sophisticated intertemporal structure in her mind), we may specify some features of the logical structure of the mental operation that is used by the actor in evaluating the results of her action.

1) The objects of comparison are *states of the world, not alternative ways of action*. Moreover, these states of the world are not the subject of any action at all, because they exist only in the past and present, not in the future. The actor has no ability to choose among them. If an actor uses a more complex evaluation procedure — for example, compares the current state of the world with unrealized (counterfactual) ones, the latter likewise aren't objects of any action (or an integral part of it).

2) The time that the actor operates with (or has in her mind) is the *past time elapsed* since the start of the action up to the present – the so-called *ex-post time*. It is obvious in the simple case shown in Fig.2. But even in more sophisticated cases, e.g. when the current state of the world is compared with the counterfactual one, the latter is still logically tied to the time t_0 — it could only be realized if the actor had chosen a different alternative at the beginning, i.e. in the past. In other words, even in this case evaluation refers either to *ex post* time or to its derivatives.

3) It is logical to assume that the binary relation expressing valuation of this kind is a *strict preorder*, i.e. *excludes cyclical valuations*, just as the preference relation discussed in the previous section. It is no longer necessary, however, to assume the uniqueness of the

maximum element: the states of the world subject to comparison are not objects of any action, thus there is no need to require that only one alternative be chosen.

4) The actor can use its valuation scale *to compare not only the outcomes of her own actions* but the results of actions of other persons and even various non-personal factors. Again, the compared states of the world are not objects of her action (they are in the past, in the counterfactual past or counterfactual present etc.). Strictly speaking, every state of the world is the result of past actions of the actor whose valuations we consider, as well as other actors and factors. Thus, the valuation scale in question is *de facto* used for evaluation of the effects of the actions of other persons on our actor's situation ("external costs and benefits") or even the consequences of using coercion/violence against the actor.

5) A state of the world may be *either better or worse* than another one on an actor's valuation scale. Thus, the outcome of the comparison, that is assessment of profit/loss may turn out to be "negative" as well as "positive". In this the profit/loss valuation is radically different from opportunity cost, which is always "positive" in the sense that the chosen alternative is *ex-ante* always better than all those rejected.

6) The procedure of outcomes' evaluation deals with time *ex-post* and its logical derivatives and therefore must heavily rely on ability of human memory. This ability is not apodictically necessary for comparison of future alternatives as in the case of preference scale.

The specified features of the procedure of profit/loss evaluation (i.e. assessment of outcomes of a single action) show that this kind of evaluation is rather different in its logical structure from the *preferences* that were discussed in the previous section. Therefore, is not their logical derivative. This type of evaluation I propose to call *value*.

PREFERENCES AND VALUE: A LOGICAL COMPARISON

Now, we have identified two logically different kinds of valuations used in theoretical reasoning within the framework of praxeology and economic theory. Here are their formal definitions:

- *preferences* - comparative evaluation by the actor of possible (future) alternative courses of action at the moment of choice.
- *value* – comparative evaluation by an actor of actual (past and present) and/or counterfactual states of the world after the action or even independently of it.

The general outline of differences between two kinds of valuation is brought together in the Table 1.

Table 1. The differences between two kinds of valuations: preferences and value.

<i>Preference</i>	<i>Value</i>
Objects of comparison: possible (potential) alternative courses of action	Objects of comparison: actual (past and present) and/or counterfactual states of the world
Objects of comparison are also the objects of choice	Objects of comparison are not objects of any choice
Objects of comparison are situated in the future in relation to the moment of valuation (<i>ex-ante</i> time)	Objects of comparison are situated in the past (more or less distant) in relation to the moment of valuation or they are logically connected with the past as counterfactuals (<i>ex-post</i> time and its logical derivatives).
Always the best alternative course of action is chosen.	Various states of the world may be in any relation in comparison with one another (better, worse or indifferent).
Preferences exist in the mind of the actor in the moment of choice (the initial moment of action) and cease to exist after the choice (the beginning of the action).	Value exists in the mind of the acting person after the action or even independently of any action of the actor.
Opportunity cost	Profit/loss (success/failure)
Only the actor's own alternative ways of action are evaluated.	Outcomes of other persons' actions and impersonal factors or even any changes in the state of the world could in principle be evaluated.
Depend on expectations	Depend on memory

PREFERENCES, VALUE AND THE MARKET PROCESS

Of course, it does not follow from the mutual logical independence of two kinds of valuation (their irreducibility to each other) that they are independent of each other in the mind of the actor. Moreover, we may argue that exactly the opposite takes place: in the vast majority of cases of real-world actions valuations of both kinds are related to each other.

For example, a human being not infrequently strives to reduce its own dissatisfaction by means of some action, that is to improve own emotional state, to satisfy a feeling of a physical need, etc. That is, a human being's criterion for choosing a particular way of action (i.e. preference) comes down to the expectation that this will be evaluated *ex-post* as causing successful decrease of dissatisfaction. Similarly, in the case of action motivated by economic calculation, the actor chooses the alternative that promises the greatest expected monetary gain, which is inevitably calculable only *ex-post*, and so on.

Moreover, in my opinion, without recognizing the substantive link between preferences and value it would be generally impossible to develop any extensive economic theory.

In particular, the economic theory of the Austrian school more or less explicitly presupposes it. Without the presupposition of a link between preferences and value it is not possible to discuss *market process*, because a "process" breaks down into a sequence of disjointed single actions of market participants. Every such action is determined by preferences that "cease to

exist” and remain behind in the moment of a choice. Thus, there is no *a priori* logical necessity for them to somehow influence subsequent actions of this actor or other actors.

Now, development of a meaningful economic theory logically requires assuming that there is some link between preferences and value, and our inner experience confirms the existence of such a link - in other words, the statement about its *existence* can be considered apodictically true. However, a particular content or form of this link cannot be determined apodictically. This follows from the logical independence of the two kinds of valuation, as well as from the fact that value as such (a relation that compares various states of the world) is, in the words of Mises, an “internal event” of the actor’s psyche, determined by the content of his mind, and therefore is not an object of praxeological study.

So, it seems that the axiomatic treatment of human action traditionally identified with the Austrian economics can be supplemented with another apodictic statement: in most cases actors exercise relatively stable connection between value and preferences over time, i.e. between valuations of the results of past actions and of alternative ways of future actions. This connection is a vital part of market process and social processes in general.

CONCLUSIONS

The proposed logical separation of two kinds of valuation, in my opinion, would not only increase logical coherence in the presentation of the Austrian economic theory, but may also help to provide a more convincing logical justification for some ways of reasoning that are used by Austrians in seeming contradiction with their praxeological premises. More specifically, if applied consistently, it would allow:

- to reformulate welfare economics, since it allows us to present in a consistent way the transition from mutually beneficial exchange *ex ante* to increased welfare *ex post*;
- to develop a more coherent theory of externalities and, in particular, to explain what the shifting of costs to other actors is;
- to provide a rationale for using some aggregate indicators in discussion of real economies;
- to shed some new light on the equilibrium framework.

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