On Austrian Value Theory and Economic Calculation

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Introduction

In this paper we point out an inconsistency between Mises' conception of value as an ordinal relation, and his elucidation of the central role entrepreneurial action plays in the market process. Given the close connection between entrepreneurship and economic calculation in Mises' thought, and given that the impossibility of economic calculation is at the heart of his critique of socialism, we will attempt to shed light on recent discussions (in the so-called "dehomogenization" debate) regarding the essence of Mises' arguments as they relate to the knowledge problems elaborated by Hayek.[2]

We will argue that although Mises (and his followers such as Rothbard) correctly conceived of value as an ordinal *relation*, precluding the possibility of value imputation (and thus the impossibility of a value calculus, as distinct from a price calculus), in many of his expositions of the market process he adopts a notion of value as a cardinal *thing* in explaining the task confronting actors in either the planned or unplanned economy (and in raising the question of the possibility of solving that task). This inconsistency has led to confusion both inside and outside the Austrian school regarding the essence of Mises' argument against socialism. We therefore hope to point out how the Austrian notion of calculative action can be explicitly framed within a relational theory of value.

A Brief Overview of Austro-Misesian Value Theory

Put simply, value is not a thing; it is a relation. As conceived praxeologically (as opposed to psychologically in the neoclassicist school, and in some Austrian circles), value is an ordinal *relation*, inextricably bound up with actual choices made by actors.[3] It does not refer to mental states but rather to a *comparison* by an actor between two goods,

[1] The author (Dan Mahoney) would like to thank Prof. Guido Hülsmann for his helpful and encouraging comments. The usual caveats apply.

[2] We do not here touch on the fact that, for many followers of Hayek, not only *are* Hayek and Mises saying essentially the same thing (about the problems confronting socialism, and more generally the essence of the market system), but that they *must be* in agreement. That project would be an interesting (and important) contribution to the sociology of the Austrian school.

[3] In contrast to the Austrian relational theory of value, we may refer to the neoclassicist conception as a *substance* theory of value, since in this framework value is a thing, extended from a human being towards the thing being valued.

and specifically goods of two different natures: one currently in the actor's possession, and one currently not in his possession but which *could be* upon consummation of a choice. (The counterfactual aspect of Austrian economics as developed by Hülsmann [1999, 2003a] is clearly seen in this notion of value.)

It makes no sense to speak of the value of a good as such; or rather, it is meaningless to do so from the perspective of Misesian economics.[4] "Value" is not some characteristic of particular good. Rather, it is a relation between that good and *another* good, an ordering relation indicating preference (or non-preference) for that good in comparison to other goods. Such a relation manifests itself whenever an actor makes a choice, which occurs with every action.

Value entails a comparison between things (goods). It does not refer to strength of feelings, degree of want satiation, *etc*, as in the neoclassicist conception. It is a preference (ordering) relation. In the neoclassicist formulation, one posits value as a thing and then (subject to various physical and technological constraints) deduces/derives choices regarding goods/consumption (*e.g.*, from a constrained optimization problem). In contrast, Austrians (Misesians) *start* with choice (or more accurately, action, of which choice is a necessary consequence/feature/aspect) as the basis of economic science and deduce various familiar economic categories, of which value is but one.

Action necessarily involves the replacement by an actor of his current state of affairs with another, future, supposedly preferable state of affairs. (The notion that every observable action is accompanied by an unobservable but necessarily existing counterpart – cost – is given a detailed account in Hülsmann [2003a].) Such replacement manifests itself in (a particular) choice. Choice, however, presupposes a comparison between or the ability to compare (at least) two things/states. We will return to this point later in the discussion of economic calculation and action with producer goods.

[4] A nice quote is provided by Salerno (2004): "As Guido Hülsmann has pointed out, it is impossible for an individual to 'value' a single object since all values are relative."

But, choice does not simply concern two abstract entities divorced from reality. A choice necessarily entails a comparison between what an actor currently has and what he *could* have (but does not yet have). Choice does not involve the comparison of feelings or thoughts regarding goods an actor could potentially own, wishful thinking, *etc.*, without connection/relation/reference to those goods the actor actually does own. The examples from Rothbard (2004, Chs. 2 and 4) in his brilliant discussion of direct and indirect exchange make very clear this counterfactual aspect of choice, namely, that choice always involves comparisons of that which we have against that which we don't (but could) have.[5] (It is probably more accurate to say that an actor first ranks his ends and then associates various goods [both those that are in his possession and those that *could* be in his possession] with those ends.)

The value of a good is then its ranking relative to the other goods from which an actor much choose. Value is necessarily context-dependent. Hülsmann (2001, 2003b) has made some vital contributions to emphasizing these aspects of Mises' thought. He is worth quoting at some length:

> "In Menger's definition of value – which contrasted somewhat with his actual analysis of value – value was a characteristic feature of a single economic good. By contrast, Mises discussed the value of one good in explicit context with the value of another good with which it was compared, and he stressed that this 'comparison' was based on choice in so far as it involved 'acts of valuation.' In short, Mises agreed with Schumpeter that value had nothing to do with want satisfaction and other feelings, and that therefore economists did not have to engage in psychological analysis. Value was ordinal; it was relative; it was a relation. It was definitely not a quantity. Mises then set out to define value as being inextricably bound up with human choices:

[5] Rothbard's (2004, Ch. 6) later discussion of a theme of later importance – the nature of *price* imputation and its centrality to certain actions – is likewise indispensable.

> Every economic transaction presupposes a comparison of values. But the necessity of such a comparison, as well as the possibility of it, is due only to the circumstance that the person concerned has to choose between several commodities.

> Mises rejected the possibility of a value calculus because of the nature of value, and stressed that "evaluation of factors of production can only proceed as it does in a market economy, namely by imputing the expected *prices* of the additional product on the factor that brings this addition about. The elder Austrians[6] had believed that price imputation was but a particular type of value imputation, and not necessarily a very good one at that. Mises saw that it was the only type of imputation at all." (Hülsmann, 2001)

And further:

> "In the mainstream approach to value (utility) theory, which conceived of value as a *bilateral* relation between a human being and an economic good, the human psyche was the common denominator for the economic significance of all goods. …By contrast, in Mises' value theory, which conceived of value a *trilateral* relationship, there was no such common denominator. The 'value' of a good was its being preferred or not preferred to other goods subject to the same choice. …According to the mainstream approach, the *amount*[7] of 'utility' derived from a good could be different in different situations. According to Mises, the *very meaning*[8] of the value of a good was different when the economic context changed – because the good would then be compared (preferred, not preferred) to different goods." (Hülsmann, 2003b)[9]

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6 Such as Wieser (see the enlightening discussion in Salerno [2003], and also Bostaph [2003]).

7 Emphasis added.

8 Emphasis added.

9 Phrased heuristically, the value of a good is not, say, "two," but rather *second*, that is, it is judged to be inferior to some good but superior to all other goods. The point is, to speak of value necessarily entails speaking of an ordering, and no representation of utility as in neoclassicism can alter this fact. For a critique of neoclassical utility theory as without warrant in going beyond what is implied in its premises, see Mahoney (2000). Along these same lines, we might say that what distinguishes Misesians from neoclassicists is grammatical: the latter view "value" as a noun (*e.g.*, what is the value of this good), whereas the former view it as a verb (*e.g.*, an actor values this good [relative] to other goods.).

With the Misesian theory of value laid out, we can turn now to another centerpiece of Mises' thought, namely his concept of the entrepreneur and calculative action.

Entrepreneurial Action on the Market and Economic Calculation

There can be little doubt regarding the importance Mises assigned to entrepreneurship on the market economy, or about the influence his particular ideas have had on many members of the Austrian school. Consider:

> "The entrepreneurial function, the striving of entrepreneurs after profits, is the driving power in the market economy. …The behavior of the consumers makes profits and losses appear and thereby shifts ownership of the means of production from the hands of the less efficient into those of the more efficient. …In the absence of profit and loss the entrepreneurs would not know what the most urgent needs of the consumers are. …[P]rofits can only be earned by providing the consumers with those things they most urgently want to use." (Mises [1998], p. 297).

> "[I]n the market economy [the entrepreneurs] can earn profits only by satisfying in the best possible way the most urgent needs of the consumers." (*ibid*, p. 686.)

Now, it is further clear from passages such as these (and many elsewhere in his work) that Mises considers the ability to engage in profit-and-loss calculations as *crucial* to entrepreneurial activity. As is clear in the discussion in Mises (1981a, Ch. 1), there is a fundamental distinction between consumer goods and producer goods. Consumer goods serve ends directly, and so not only can they be compared against other such goods, but they are also in some sense the penultimate focus of economic activity. More precisely, by their nature these goods can be associated with the ends they can serve, and thus the ranking of those ends "imputes" a ranking of the associated (consumer) goods.

For any individual actor, the ranking of these goods stands more or less independent[10] of the rankings of other actors. Producer goods in contrast only serve ends indirectly and cannot be ranked against other goods; there is in this case no association of ends with goods and thus no "rank imputation" to (producer) goods. They can only be the objects of economic activity to the extent that they can be used to create those goods that can be appraised in light of an actor's end, *i.e.*, consumer goods. That is, unlike action with a consumer good, any action (under the division of labor) with a producer good is not independent (in an economic sense) of the value judgments of other actors, because, as Mises argues, successful action with a producer good depends on the output being viewed favorably (in some sense) by those who will consume it.

We will turn later to the sense in which economic action with a producer good is possible, given their indirect connection to the attainment of ends. We will note here though that Mises clearly considers the ability to engage in profit-and-loss calculations (and of course the relatively superior ability of entrepreneurs, as compared with their fellows, to anticipate future conditions) as indispensable to successful entrepreneurial activity. (Inasmuch as such calculations presuppose private ownership in those means, such that prices for those means actually exist, the connection with entrepreneurial activity and Mises' demonstration of the failure of socialism, where such activity is by necessity absence, is evident.) However, there is another point that can be discerned in the above passages by Mises: namely, that profitable/unprofitable entrepreneurial action is related to, if not dual to, the satisfaction/frustration of consumer ends.

What is the basis of this assumption (common in much Austrian work) that the more profitable (successful) entrepreneurs are satisfying more highly valued (consumer) ends, and that less profitable entrepreneurs are satisfying less highly valued ends? What is the implicit justification for this association? Presumably, a substance theory of value

[10] In a relatively narrow economic, if not broader sociological, sense. This economic claim is not strictly true in a *money*-using economy, because to the extent that the price of any good depends on the valuations of all market participants, the ranking by an actor of a consumer good against money necessarily depends on the valuations of those other actors. (I owe this point to Prof. Guido Hülsmann.)

is being appealed to.[11] Assume that two goods, A and B, can be created with some factors of production. The claim is, if consumers are willing to pay $10 for good A but only $8 for good B, then we can say that A was more highly valued than B. This can only be true if it is assumed that value is a thing, so that we can say that A is preferred to $10, and $10 is preferred to B, so that, by the nature of cardinal entities, A is preferred to B. With this view, price calculation is simply a proxy for calculation in terms of value (although admittedly, things like knowledge problems may make price calculation a superior proxy).

If, however, we adopt a (Misesian) relational theory of value, such a conclusion is unwarranted, because the value of some end only makes sense in the context of a choice to be made between that end and some *other* end. In this case, the fact that a consumer chooses A over $10 but chooses $10 over B tells us nothing about whether he would have chosen A over B, because this is not the choice he is actually confronted with. As we have seen, value is now an ordinal relation, a ranking of goods that an actor must choose between. An actor is faced with a choice between money and goods, not between different goods, so it is unwarranted to draw conclusions about how he would choose between the goods based on how he chose between money and the goods. Price calculation is not simply a proxy for value calculation, but something entirely different, in no small part because a value calculus is now impossible. Profit-and-loss calculations are not a "signal" that more or less highly valued ends are being met, but rather a framework making possible a choice between producer goods that otherwise could not be ranked as a precursor to an actual choice.

If entrepreneur A buys some factors for $100 and sells the output (call it G_A) from these factors for $150, and entrepreneur B buys some other[12] factors for $100 and sells the output (call it G_B) from these factors for $120, in what sense has A better served consumers than B? The consumers prefer G_A to $150, which they prefer to G_B (since they were only willing to pay $120 for it). Does it follow, however, that they prefer G_A

[11] See Footnote 3 above.
[12] "Other" in the sense of physically distinct, but identical in the sense that they could produce *either* good A or B.

to G_B? It does *not* follow, because *this* choice does not confront them. Only the monetary choice confronts them, and all that can be concluded is that entrepreneurs seek to maximize the *monetary* ends of consumers, not consumer ends as such.

We can thus raise the question of whether Mises conflates the satisfaction of monetary ends with the satisfaction of ends as such. The Misesian account of the market process clearly highlights the indispensable role that profit-and-loss calculations play, but there is a strong undercurrent of emphasis on a rather distinct issue, namely the question of consumer satisfaction. An entrepreneur buys factors of production in the anticipation that he will earn a profit from selling the output of these factors, and furthermore that the specific line of production into which he directs those factors is more profitable than any other line. Of course, he can only make a profit if the buyers of that output – the consumers – are willing to pay the necessary sum of *money*. That is, they must prefer the entrepreneur's wares to some amount of money, which is a different question from whether their highest ends are satisfied in some psychological sense. Certainly, the most successful entrepreneurs extract the most money from the consumers. But this simply means that they correctly anticipated the consumers' highest ends as ranked against money, not as they rank against other goods from which the consumers could choose in a hypothetical sense. The former choice is a very specific one, and at any rate it *is* the choice the consumers are actually confronted with. The question of how the consumers would rank the array of possible goods that could technologically result from the various production lines an entrepreneur could potentially establish is irrelevant. The consumers are not asked to choose from this (ultimately abstract) array; they are asked to compare what they actually have to what *could be* produced. What they have, however, is not goods as such but specifically money. Most Austrian explications of the entrepreneurial market engine seem to conflate these two very different senses of consumer ends. Only one (the issue of monetary choice) is important to actual action on the market.

We should note here two important recent articles that echo some of these points. In a superb article, Costea (2003) provides a related critique of Mises' theory of monopoly prices. Specifically, Costea notes that "Mises frequently speaks about the fact that entrepreneurs, by looking for the highest net proceeds, respond to the most important desires of the consumers." She then goes on to demonstrate that in so doing, Mises "embraces the nonscientific method of interpersonal comparison of utility in order to support his claim that 'monopoly prices' would have a negative impact on consumers' welfare." That is, Mises makes an implicit appeal to a substance theory of value, and this highlights another area where Mises' practice is inconsistent with his (ordinal value) theory.[13]

In another excellent article, Gertchev (2004) points out the evolution of Mises' conception of money between *The Theory of Money and Credit*, in which he views the value of money as an entity *derived* from the value of the goods against which it is exchanged, and *Human Action*, where the demand *for* money, that is, in relation to *other* goods, is the centerpiece of his exposition of money. Two quotes (among several) provided by Gertchev adequately illustrate this claim. From the former work:

> "The subjective value of money always depends on the subjective value of the other economic goods that can be obtained in exchange for it. Its subjective value is in fact a *derived* concept."[14]

And from the latter work:

> "But it does not alter the fact that the appraisement[15] of money is to be explained in the same way as the appraisement of all other goods: by the demand on the part of those who are eager to acquire a *definite* quantity of it."[16]

Money is money because it is the only good that can be *ranked* against *all* other goods.[17] Now, the point here is not the evolution of Mises' thought as such, but only to highlight

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13 I am indebted to Prof. Guido Hülsmann for bringing this essay to my attention.
14 Mises (1981b), p. 119, quoted in Gertchev (2004; emphasis added).
15 That is, a comparison: a *judgment* of value relative to other goods.
16 Mises (1998), p. 400, quoted in Gertchev (2004; emphasis added).
17 We leave aside the question of what, precisely, distinguishes a (general) medium of exchange from money. That is, we do not inquire as to whether the fact that only money can be ranked against all other

that there *was* such an evolution. Plainly there are instances of inconsistency in Mises' thought where he misapplies, to some extent, his own correct value theory, even if he later (implicitly) correctly applied it.[18]

Parallels between Capitalist and Socialist Planning

Before turning the question of the nature of Mises' argument against socialistic planning, it is worth comparing some common themes in his understanding of market vs. anti-market systems:

> "In the capitalist system of society's economic organization the entrepreneurs determine the course of production. In the performance of this function they are *unconditionally and totally* subject to the sovereignty of the buying public, the consumers. If they fail to produce in the cheapest and best possible way those commodities which the consumers are asking for most urgently, they suffer losses and are finally eliminated from their entrepreneurial position. Other men who now better how to serve the consumers replace them." (Mises [1980], p. 108, emphasis added.)

And:

> "[The director] must act. He must choose among an infinite variety of projects in such a way that no want which he himself considers more urgent remains unsatisfied because the factors of production required for its satisfaction are employed for the satisfaction of wants which he considers less urgent." (Mises [1998], p. 692)

goods really stems, as Menger held, from the impetus to facilitate exchange. An alternate conception would be that calculation, rather than being a byproduct of an existing money, is in fact the real driver behind the emergence of money as distinct from a medium of exchange. See Mahoney (2005).

[18] For those readers who find merit in weblog ("blog") discussions, it has recently been claimed that there are ambiguities in the translation of Mises' original 1920 article on socialism, between ordinal and cardinal conceptions of value. See "Mistake in Translation of Mises' Economic Calculation" by Mateusz Machaj at http://blog.mises.org/blog/. It is interesting to note that some of the counter-replies to these claims view the essence of value as being its subjectivity, and *not* its status as a rank as opposed to an entity.

It is interesting to note the almost neoclassicist flavor of these passages, at least in light of Mises' own value theory. The primary problem faced by both (decentralized) entrepreneurs and central planners alike has little to do with the framework of action, which requires that *any* actor rank the alternatives before him upon making a choice. The set of alternatives, however, *always* includes those goods already in an actor's possession. The question any planner, be he capitalist or socialist, must answer is this: where on his ranking of goods (ends) does he place his factors of production (means)? The planner may favor red cars over blue motorcycles (or he may believe that those who are to consume these things share that preference), but *right now* he owns factors of production. These factors must likewise be ranked among the set of alternatives as conceived by the planner, but since by their nature they satisfy no end directly, how are they to be compared against goods that do satisfy ends directly? Plainly this is not simply an issue of knowledge.

Now, if value was a thing, as the neoclassicist school would hold, then the planner could retain hope that the value of ends could somehow be imputed back onto the factors used to produce them, from which his relevant choices (actions) regarding those factors could then be derived. This is not the case, however. From the Austrian perspective, action and the *fact* of choice are the foundations of economic science, and action regarding some good requires that it be compared against alternative actions and their associated means/goods. There is no imputation of value from future products to present factors, because the value of these factors is dependent on the context of choice confronted by an actor *right now*. Thus, the relevant question from an Austrian standpoint is not how the "value" of final products drives the selection of the factors used in production, but rather concerns how it is possible to order/rank those factors as the prerequisite to an action with those factors.

The question Mises seems to be concerned with is this: *given* the ends of the consumers, that is, the extent to which they value various goods, how are these goods to be best produced? He (and most other Austrians) plainly believe that the skill, prescience, *etc.* of profit-seeking entrepreneurs is key, if not the only viable solution.

(One might view this position as a sort of Misesian "invisible hand" doctrine, whereby an action of one nature [pursuit of monetary profit] has ramifications on an action of an entirely different nature [satisfaction of ends that can be understood without reference to money].) In other words, let the consumers "announce" (via their willingness to buy or refusal to buy) their preferences, then let the entrepreneurs "figure it out" (via their pursuit of profit and relative superiority in anticipating future conditions). The ability of central planners under socialism to similarly do such a thing is impossible owing to the impossibility of economic calculation in the absence of private property relations, hence the "impossibility" of socialistic economic organization.

Again, it is not really clear how this formulation is all that different from the neoclassicist position, which would view the problem as one of maximizing utility subject to certain physical and technological constraints. These economists ask: given consumers' ends, what is the best way of satisfying them with higher order goods? Perhaps a better question would be: what is the nature of those ends that *can* be satisfied with higher order goods? We are referring here to the distinction between monetary and non-monetary ends discussed above. It is worth pursuing the question of the nature of socialism in light of Mises' value theory.

Economic Calculation and the Problems of Socialism

The problem faced by central planning is commonly portrayed as one of satisfying the most highly valued (consumer) ends, without preventing even more highly valued ends from being attained. We have already considered some of Mises' statements on the matter, and almost identical statements can be found in very many Austrian works.[19] Horwitz (1998) provides a representative sample: "[S]ocial ownership of the means of production prevented any planning agency from being able to allocate resources rationally, that is, satisfy consumer wants by using the least-valuable resources possible." (Note that the problem is portrayed not fundamentally in terms of action with producer

[19] We should also note that, in a slightly different but related context, Hülsmann's (2002) important contribution points out that the standard Austrian account of interest conflates two different concepts: time preference as a (value) relation between the realization of goals at different points in time, and the *monetary* spreads between factors and products, an error similar in nature to the association of higher ranked ends with more profitable lines of production.

goods – that is, means directed towards some end with a connection between the two – but more technically in terms of a criteria of efficiency regarding such use.)[20,21] Also: "[M]arket prices are socially accessible *proxies* for the imperfect subjective evaluations of both consumers and producers." (Emphasis added.)

Or, consider Kirzner (1996, p. 150): "To be unable to calculate the worthwhileness of a prospective action taken in the market society, is, after all, *to not know the importance to others* of the goods and services one commits to that action, and the importance to others of the goods one will obtain from that action." (Emphasis in original.) Now, if by "importance," Kirzner simply means the *other* goods surrendered in an exchange (that is, he is referring to a ranking), then this statement is not terribly objectionable. However, given the enormous emphasis Kirzner has placed on Hayekian knowledge problems in the course of his illustrious career, it seems he has something else in mind, namely that this "importance" relates in some way to the psychological significance an actor places on goods, and the ability of the competitive market process to communicate that significance.[22]

With a Misesian understanding of value, the problem of socialist calculation can be seen as one of how the outcomes of various actions (choices) can be compared, thus making possible the realization of certain actions (those involving higher order

[20] Consider Lange's comment on Mises' argument: "[Price] may mean price in the ordinary sense, *i.e.*, the exchange ratio of two commodities on a market, or it may have the generalized meaning of 'terms on which alternatives are offered.' It is only prices in the generalized sense which are indispensable to solving the problem of the allocation of resources…But Professor Mises seems to have confused prices in the narrower sense…with prices in the wider sense of 'terms on which alternatives are offered.'" (Quoted in Horwitz, 1998). It seems clear that Lange is appealing the possibility of a value calculus to salvage the fortunes of socialism, so the issue is not really one of general equilibrium theory, as Horwitz claims.

[21] In several important essays, Salerno makes a forceful distinction between Misesian price calculation and neoclassicist value calculation with his concept of appraisal. However, even in these works one can find statements that seem to portray the two issues as having a proxy relation, with the former serving as a superior substitute for the latter. Consider: "[the Misesian demonstration of the logical impossibility of socialism] is concerned with the lack of a genuinely competitive and social market process in which each and every kind of scarce resource receives an objective and quantitative price appraisement in terms of a common denominator *reflecting* its relative importance in serving (anticipated) consumer preferences." (Salerno [1994], emphasis added.)

[22] A similar objection can be leveled against Boettke (1998), who speaks of "monetary prices *reflecting* the relative scarcity of capital goods" in the course of a defense of the inherent compatibility of Misesian calculation and Hayekian knowledge problems. (Emphasis added).

[producer] goods). The problem is not one of satisfying ends as such, which do not exist in isolation but rather *in comparison to* other ends. Any given end has as a necessary counterpart a host of other ends which can be categorized in two ways in terms of their realization: those that are deemed less important than the end in question, and those that are deemed more important. The primary economic question facing an actor, then, is how to make this categorization regarding both consumer and producer goods. In short, an actor must necessarily (if not consciously) rank goods in terms of preference in the course of any action.

Such concrete rankings are the necessary precondition of any action. (Or rather, we understand actual actions as entailing such comparisons.) Now, comparison of different things is not always possible (in an economic sense), in which case the range of possible actions available to an actor could be quite limited. We cannot speak of the "value" of a particular thing without making reference to the thing's standing among the various means associated with an actor's framework of ends, so any notion of value abstracted from the actual context of choice cannot serve as a basis for economic decision-making. The question then, is this: what kinds of things in and of themselves (*e.g.*, without reference to institutions) permit such a ranking at all times and places? Clearly, the list of possible things is quite limited: chiefly, consumer goods and perhaps a relatively small number of lower order producer goods, whose proper place in the structure of production can be readily apprehended.

An actor always has at his disposal various goods – his *property* – that he can employ in the service of his ends. Some (if not most) of these goods can be used not only in the direct attainment of multiple ends, but can also be used to produce new goods that in turn can directly serve ends. That is, many of the goods an actor possesses can take on the form of either consumer *or* producer goods, depending on the manner in which the actor employs them.

To employ any good in the service of ends requires two things: that the good can be associated with some end that it can serve, *and* that it consequently can be compared against other such goods in light of those ends. In this way, an actor can compare employment of the good in question to its non-employment (that is, employment of *other* goods). We understand action as entailing an observable part and a non-observable, but necessarily existing, part (see Hülsmann [1999]).

Actions with consumer goods plainly manifest this counterfactual aspect of action. Such goods can be *directly* associated with ends and thus compared against one another in terms of employment and non-employment. Actions with producer goods are fundamentally different. Such goods can neither be associated with ends directly nor compared with other goods in terms of ends-attainment. The employment of a producer good requires that an actor evaluate the consequences of its non-employment. But, this non-employment can only mean that an actor employs a consumer good, or another producer good instead. In either case, these alternative courses of action do not permit comparison and consequent ranking against the original producer good. The reason is not because of deficiencies in knowledge. Rather, this impossibility of comparison is due to the essence of producer goods: producer goods produce other *goods,* and any such output must be employed in at least one more action by an actor to satisfy any end at all. Consumer goods in contrast require but one action to attain some end.

In essence, producer goods do not permit "encapsulation" of actions as consumer goods do, hence the inability to rank producer goods at orders very far removed from the final stage of consumption. Any action presupposes the ability to compare two things: the action to be realized, and actions that could be realized instead. Inasmuch as any action with a producer good commits, so to speak, an actor to subsequent actions, actions with producer goods are not comparable to actions with either other producer goods or even consumer goods. The reason, to repeat, is that any single employment of a producer good entails or implies a set of heterogeneous actions, and it is only homogenous actions (such as those that directly satisfy some end) that can be compared. Actions with producer goods thus require some sort of representation in terms of consumer goods, such that these homogenous comparisons are possible. The price system, based on private property rights in all goods and consequent exchange of those goods, permits just such a representation.

Thus we can see the distinction between a price calculus permitting actions with higher order (producer) goods and a (neoclassicist) value calculus. One concept is highly institution-dependent (namely, it cannot exist without the institution of private property), while the other is not (it is primarily an issue of psychology and knowledge constraints). (To say that the knowledge necessary to determine something can only exist under certain institutions amounts to saying that these institutions are a means for acquiring that knowledge, not the determinant or actualizer of the thing in question, an important difference.) As can be seen from the passages quoted here, this critical distinction is not always made clear in much Austrian work.

It is probably not surprising, then, that in the so-called "dehomogenization" debate[23] regarding the degree of affinity between Mises' and Hayek's views of the market process (and the flaws of socialism), the Hayekian side seems genuinely baffled that there should be a debate at all, despite the wide recognition that Mises and Hayek were very different thinkers on a number of other issues. It seems reasonable to suppose that, on the Misesian side, an understanding of and emphasis on the distinction between a value calculus and a price calculus (and the dependence of the latter on a system of private property in higher order goods) has been clouded by an appeal to Mises' statements on calculation that do not adequately make clear these points. Hence, it is reasonable that Hayekians, appealing to these same statements while sharing a Wieserian

[23] Salerno (1990, 1993) is widely recognized as inaugurating this debate; see also Rothbard's (1997) important survey article. Indeed, it appears that Salerno's work on this topic (well-known to Rothbard by 1992) had the quite impressive effect of prompting Rothbard to identity the essence of the Austrian school in Mises' praxeological approach, a focus which Rothbard pursued in much of his later work. (Private communication with Prof. Joseph Salerno, as relayed by Prof. Guido Hülsmann.)

This debate has spawned a huge literature in Austrian circles. See the references in Hülsmann (1997), one of the very best essays on the subject. See also the very nice discussion in Kinsella (1999) on the questionable relevance that knowledge problems have for a central problem of ethics: conflict arising from scarcity and its resolution through the establishment and recognition of *property* rights.

concept of value (which Hayek inherited; see Salerno [2003]), object that there is any tension between the two.[24]

A Reformulation

From the standpoint of Misesian economics, a more appropriate formulation would go as follows. A good can be the object of some action only if it can be compared in some way against the goods an actor already has in his possession, such that a preference (ordering) relation can be established. Action involves choice, or rather manifests itself through choice. Choice however presupposes a comparison of alternatives, or the ability to compare.

In regards to consumer goods, actions are always possible because such goods serve ends directly and so can be compared against one another. In particular, an actor can always compare the consumer goods he has to those consumer goods he doesn't have but could have, should he exchange one type for the other type. Such a course of action is impossible in regards to producer goods, since such goods only serve ends indirectly (via the consumer goods they could be used to create) and so cannot be ranked against one another.[25] Thus actions regarding such goods would not possible, unless there was some institutional arrangement that permitted such goods to be *represented* as goods that can be compared. The institution of private property is precisely that institution that permits a representation of *all* goods in terms of a *homogeneous* unit – money – such that all goods can be coherently compared in terms of prospective/appraised profit-and-loss calculations via the price system. Inasmuch as the institution of private property is the essence of market systems and is by nature absent from socialist systems, the feasibility of actions with regards to *any* good is seen to be present in the former system and absent in the latter.

[24] It is less reasonable that many prominent Hayekians seem troubled by the fact that there is debate at all regarding the question of tension.

[25] At least, not compared as *producer* goods. A particular good that could be used as either a producer good or a consumer good could be compared, but only by jettisoning its nature as a producer good.

As a side note, since entrepreneurial action is aimed at the satisfaction of consumers' highest *monetary* ends and not ends in a psychological sense, and since the market price system is an integrated whole encompassing *both* consumer and producer goods, it then follows that "market socialist" systems are likewise doomed to failure. Prices for consumer goods do not exist in a vacuum from prices for producer goods; all market participants play a dual role both in their purchases of consumer goods and their purchases of various securities, including loans to entrepreneurs. Such purchases undergird the price system across all goods and thus do not permit the strict separation of consumer goods prices and producer goods prices. Thus it makes little sense to speak of a "free" market for consumer goods and "publicly" owned producer goods. It makes even less sense to speak of attaining the highest monetary ends of consumers in such a regime, which is just what planners under a market socialist system would presumably be attempting to do.

Conclusions

In Misesian economics, value is not a thing or entity but an ordering relation between those goods that are the objects of a real choice. As such, value cannot be imputed from one good to another, even if there is a causal relation in terms of production possibilities between the two goods. It is for this reason that price imputation is necessary for actions with certain goods, namely producer goods with which ends cannot be directly associated. This understanding of value is in conflict with common Austrian expositions (made by Mises himself) of the market process, whereby profit-making actors satisfy highly valued (consumer) ends, and loss-making actors satisfy lesser-valued ends. This paper has attempted to point out this conflict, and to advocate that the distinction between a neoclassicist value calculus and an Austro-Misesian price calculus be made sharper in Austrian defenses of the market and critiques of socialism.

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