

## **Thymology, Praxeology, Demand Curves, Giffen Goods and Diminishing Marginal Utility**

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*Abstract:*

Austrian economists have been criticized for several logical inconsistencies. On the one hand, they support the law of downward sloping demand, but given that, the Giffen good serves as a refutation. On the other hand, the praxeological school embraces diminishing marginal utility but rejects indifference; yet, how can utility diminish (or increase or even remain constant, for that matter) as equally serviceable units are utilized? For this to happen, there must be equally serviceable units in the first place, and this constitutes nothing but indifference, rejected by Austrians.

The present paper is an attempt to shed light on these issues, and to demonstrate that there is no contradiction in, nor even intellectual discomfort for, the praxeological school of economics in any of these matters.

### **1. Introduction**

Section II addresses thymology; section III discusses praxeology; section IV focuses on demand curves and the law of demand; the subject of section V is the supposed Giffen good refutation of the Austrian analysis of the law of demand; in section VI we explore the status of the law of diminishing marginal utility; indifference is subjected to withering criticism in section VII; we conclude in section VIII.

### **2. Thymology**

What is thymology? Sunwall (2005) defines thymology “as any psychology appropriate to free and rational beings.” This, to be sure, captures the meaning of the word as used by many, but will not help in the present regard. Lavoie and Storr (2001) distinguish the “psychological aspects of understanding (thymology) from the “science of action” (praxeology).<sup>1</sup> ... thymology, (consists of) ... attempts to understand concrete human purposes in their specific contexts.” This comes closer to the use of this word we will make, but still differs from it. Greaves (1974) defines a thymology as psychology, and says this of the latter:

“Psychology is concerned with the minds of men. It has two major meanings. The sciences of human action are not primarily concerned with the physiological meaning, sometimes known as natural or experimental psychology. Whenever Mises refers to psychology in economic studies, he has in mind what some call “literary psychology” and which he has called “*Thymology*” in *Theory and History* and *The Ultimate Foundation of Economic Science*. In this sense, psychology “is on the one hand an offshoot of introspection and on the other a precipitate of historical experience. It is what everybody learns from intercourse with his fellows. It is what a man knows about the way in which people value

different conditions, about their wishes and desires and their plans to realize these wishes and desires. It is the knowledge of the social environment in which a man lives and acts.

“It signifies the cognition of human ideas, emotions, volitions, motivations and value judgments which are an indispensable faculty of everyone. It is the specific understanding of the past which gives men an insight into the minds of other men. Psychology, like economics, starts with the individual. It concerns the internal invisible and intangible events of the mind which determine man's value scales which result or can result in action. *Economics* begins at the point psychology leaves off.

What had Mises to say about all this? In his view, thymology is a “branch of history” that “deals with the mental activities of men that determine their actions.”([1962] 1978: 47-8). It is “what everybody learns from intercourse with his fellows” (Mises [1957] 1969: 266). This term denotes “what a man knows about the way in which people value different conditions, about their wishes and desires and their plans to realize these wishes and desires.”<sup>2</sup>

In the present paper we shall use thymology in somewhat of a different although related manner. For our purposes it will depict economics that is not praxeological; that part of the dismal science which is roughly, usually, typically, almost always true, but not necessarily so; for example, the claim that demand curves always slope in a downward direction. This claim is belied, for example, by the Giffen good. Into this category will also be placed a whole host of heuristic devices, which serve as (important) approximations of praxeological insights, but which break down upon scrutiny. For instance, the triangle, used to illustrate Austrian business cycle theory (ABCT).<sup>3</sup> Another example we place into this category is demand curve (and also supply curve) analysis, to be explained below.

Why use the word “thymology” to depict rough approximations of economic truth, when this is not exactly, and precisely, what it means in the Austrian literature? For three reasons. First, as we have seen, this expression has no one precise narrow meaning. Rather, different commentators employ it in slightly different ways, as do many given economists themselves, such as Mises. Second, our meaning falls under the same general rubric as does most of theirs. Thymology, in our view, connotes that part of economics that is not necessarily true, although it often is. Historical insights, too, are like this. Third, we respect parsimony in language; why invent totally new verbiage when tried and true words will suffice?

### **3. Praxeology**

Praxeological statements in economics are those that are necessarily true, cannot be denied except upon pain of logical contradiction, and, yet, give us insight into the operation of the real world of economics.

Instances of praxeological statements include the following:<sup>4</sup>

“Whenever two people A and B engage in a voluntary exchange, they must both expect to profit from it. And they must have reverse preference orders for the goods and services exchanged so that A values what he receives from B more highly than what he gives to him, and B must evaluate the same things the other way around.”

“Or consider this: Whenever an exchange is not voluntary but coerced, one party profits at the expense of the other.”

“Or the law of marginal utility: Whenever the supply of a good increases by one additional unit, provided each unit is regarded as of equal serviceability by a person, the value attached to this unit must decrease. For this additional unit can only be employed as a means for the attainment of a goal

that is considered less valuable than the least valued goal satisfied by a unit of such good if the supply were one unit shorter.”

“Or take the Ricardian law of association: Of two producers, if A is more productive in the production of two types of goods than is B, they can still engage in a mutually beneficial division of labor. This is because overall physical productivity is higher if A specializes in producing one good which he can produce most efficiently, rather than both A and B producing both goods separately and autonomously.”

“Or as another example: Whenever minimum wage laws are enforced that require wages to be higher than existing market wages, involuntary unemployment will result.”

“Or as a final example: Whenever the quantity of money is increased while the demand for money to be held as cash reserve on hand is unchanged, the purchasing power of money will fall.”

To let the cat out of the bag preliminarily, it is our contention that the quagmires, seeming contradictions, puzzles, objections to Austrian theory arise because of insufficient attention paid to the distinction between praxeology and thymology, and can be resolved to a renewed focus on this distinction. To wit: the law of demand, contradicted by the Giffen good case, is thymological, not praxeological, and thus fails to constitute a refutation of Austrianism; in contrast, the law of diminishing marginal utility, as separate and distinct from the law of downward sloping demand, although not unrelated to it, is indeed a praxeological claim.

#### **4. The Giffen good**

Here, the price of a good, e.g., potatoes, falls. One would think that everyone would purchase more of them at this new lower price, than before at the previous higher price, *ceteris paribus*. In the example under consideration, this is not so. For here potatoes make up a large part of the budget of a poor man, and the income effect of the lower price (he is enriched) outweighs the power of the substitution effect (in the direction of buying more of cheaper products); the price decreases, and yet he buys fewer. His wealth has increased, and he can now afford more of the luxury good, meat. Or, take this the other way around. The price of potatoes rises. The poor man who spends a large proportion of his income of this product is now impoverished by this alteration in the terms of trade. As such, he has to cut back on his purchase of meat, the luxury good. For this income effect again outweighs the ordinary substitution effect, against of the now more expensive good, potatoes.

The Giffen good, of course, is not the only exception to the “law” that demand curves are negatively sloped, and supply curves slope in the opposite direction. There is such a thing as the backward bending supply curve of labor (BBSCL). Here, as is also well known, this “law” is violated. In contrast to the Giffen good, the BBSCL is endemic for virtually all people, at rather modest pay scales. Since there are only 24 hours in the day, and people, all people, must rest for a few hours per day or die,<sup>5</sup> at high enough salaries, this supply curve must of necessity bend backwards. Usually, it is thought that the BBSCL applies only to individuals; for the market supply curve, new workers continue to enter the field as wages rise. However, this presumption rests on the size of the labor market in question. If it is small enough (e.g., chess grandmasters; technical specialists), this can, also, apply to groups of people.

#### **5. Demand curves**

The so-called law of demand is that demand curves slope in a downward direction. In our view, this is not a law at all, at least not of the praxeological variety. Rather, it is an empirical generalization, which is true either all of the time, or, at least in the overwhelming majority of cases. The only exception to this rule is the Giffen good.<sup>6</sup>

But this constitutes no embarrassment to the Austrian school of thought. It is not part of the praxeological edifice that demand curves must always and ever slope negatively.

Garrison (1985) takes a different view of this matter. According to him, “the most basic law of economics, (is) the Law of Demand.... It fails to allow for the theoretical possibility of a Giffen good.” This implies that the most basic law of economics is false, an embarrassment for the dismal science. One wonders how the most basic law in a discipline can have any counterexample, let alone such an easily available one.

In contrast, in our view, the most basic laws of economics are all praxeological, not thymological.

But this only begins to document the difficulties with this supposed basic law of demand. There is also the Veblen or so called “snob” good. In this case, the price of a commodity rises, for instance, an automobile. Some people, snobs, take this as an indication that either the quality of the car has risen, or that other people will think it has, and thus be more impressed than otherwise by people who have bought it. Thus, the marginal market participant, at least of this variety, will increase his purchases: a higher price will call forth a boost in sales, not a diminution, and again we will have an upward sloping demand curve. Ditto for a fall in price leading to fewer sales on the basis of this motive.

The downward sloping “Law of Demand” is thus subject to both of these refutations. Some “Law.”<sup>7</sup>

There is even a more serious criticism of the “Law of Demand.” This stems from the praxeological fact that all choice is essentially binary. That is, at any given time, the economic actor is faced with a stark choice: do A or B, where A is the chosen alternative, and B is the next best opportunity foregone. All of the other seeming options, C, D, E, etc., do not really count; they have already been rejected in favor of B, the one next best option.<sup>8</sup>

How does the demand (or supply) curve stack up against this primordial, elemental basic fact? Not too well. For this conventional neoclassical<sup>9</sup> tool of analysis is not at all compatible with singularism, the notion that actual human choice can always be rendered as a decision between A and B, between this and that. In contrast, the demand curve is a locus of an *infinite* number of points, depicting alternative prices and quantities. This is entirely incompatible with praxeological considerations, and must be rejected on that ground.<sup>10</sup>

Of course, it cannot be denied, the demand (and supply) curve has a positive role to play as a matter of thymology. It is a useful heuristic device. It helps most of us, certainly those of us who have been weaned on supply and demand analysis, to think more clearly about economic reality. But, when the Giffen good, or the Veblen snob good, or the BBSCL for the supply curve, is offered as a counter example to the law of demand (supply), this criticism goes only so deep. It reaches thymology, yes, but not praxeology.

## **6. Diminishing marginal utility**

Diminishing marginal utility is a far different matter. Now, we are in the realm of praxeology, not thymology. A successful criticism here, would be telling indeed. But, before we fend off objections on this ground, let us rehearse the differences between the mistaken views of our neoclassical friends, and those of Austrian economics on this matter.

In the latter case law of diminishing marginal utility has it that marginal utility necessarily diminishes, as more and more of the good or service in question is utilized. This stems from the

praxeological insight that always and ever prefer greater satisfaction to lesser. Suppose a man has 5 gallons of water; he uses them in the following order:

1. drinking
2. washing food
3. bathing
4. watering his crops
5. watering his flower garden

Whereupon the precise gallon of water he had earmarked for his most important use, drinking, is stolen or spilled. Does he forego his most important use of water? Not a bit of it. He rearranges matters so that his flower garden wilts, but he does not die of thirst.<sup>11</sup> That is, marginal utility *necessarily* declines: the 5<sup>th</sup> best use of water is ranked lower than the 4<sup>th</sup>, and the 4<sup>th</sup> lower than the third, etc.<sup>12</sup> Note that all these rankings are just that, rankings. We are now in the praxeological realm of ordinal utility, not the cardinal variety.

In the former or mainstream case, the “law” of diminishing marginal utility, is a matter of thymology. Marginal utility *tends* to decrease with greater usage; it is a mere presumption. There is no *necessity* that it do so. Most of the time it does, sometimes it does not. It is all a matter of psychology, and cardinal utility. For example, you might drink your first beer too quickly. It goes down so fast, you hardly enjoy it. The second one is much better; you are now “primed” for the taste, and appreciate it even more. Ditto for the third; it too is “better” than the second, which was, in turn, more enjoyable than the first. But, by the fourth beer, diminishing returns have now set in, and the utils derived from it finally decrease.

As nonsensical as this all is from the perspective of technical or praxeological economics, it makes a certain sense from an informal, thymological or non technical economic vantage point. There is a certain low cunning to these insights. We have all experienced just this sort of thing. We all understand the previous paragraph. Of course, when we consider the cardinal utility implications, a lot of this vanishes. None of have seriously claimed that the second beer was exactly twice as good as the first, or that the diminution of enjoyment between the third and fourth brew was anything like 12.67%. When mainstream neoclassical economists place utility on the vertical axis, this is precisely the fallacy of which they are guilty.

## 7. Indifference

In one of the funniest skits ever to appear on television, Chappelle says that he knows “better than to get in between a n\*gg\*r and his pork.” Well, in much the same way we can say that he who attempts to keep a non Austrian economist from his indifference concept, had better watch out, too.

Indifference is simply *beloved* of the traditional economist. He eats, breathes, lives and sleeps indifference. He also uses it as a stick with which to beat up on Austrians.

Before we consider that attack and its refutation, let us first cast a few aspersions on this entire concept. First, it is thymological, not praxeological. That is, indifference is a perfectly good word in the English language, and has a clear referent. We all know how to use the concept. As a matter of psychology, ordinary language, thymology, it is unobjectionable.<sup>13</sup> But as a matter of technical economics, praxeology, it is highly problematic.

First, it is incompatible with human action, choice, decision-making. As a matter of exact language, if one were truly indifferent between two options, there would be no justification for choosing one of them over the other. Yet, we do choose, all of the time. Hence there is no room for indifference in our intellectual armament.

Second, it implies the fallacious cardinal, not the legitimate ordinal, utility. This may be seen easily by contemplating the point at which a budget line is tangent to an indifference curve. At this point, the following equation<sup>14</sup> supposedly holds true:

$$1) \text{ MU}_a/P_a = \text{MU}_b/P_b$$

But what does it mean to divide one number by another, as in  $\text{MU}_a/P_a$ ? This necessitates all such figures being cardinal, not ordinal. For it would be *impossible* to divide an ordinal number by anything. For example,  $16^{\text{th}}$  divided by 2 is *not* equal to  $8^{\text{th}}$ . Rather, it is a meaningless calculation.

What, then, is the neoclassical attack<sup>15</sup> on the Austrian position? It consists of the claim that indifference is required if we are to be able to make sense of the *law* of diminishing marginal utility. That is, the *law* of diminishing marginal utility is logically incoherent without indifference. And, since Austrians eschew the latter, they must cease and desist from defending the former, on pain of self contradiction.

At first glance, this does indeed seem like a telling blow against the Austrian edifice. After all, if we use more and more of a stock, or a supply of a good, the law of diminishing marginal utility tells us that we necessarily value each succeeding unit less than the one before. But, if this law is to make any sense at all, we have to have a stock, or a supply of a good in the first place; what else is there as a candidate for us for the value thereof to diminish? But if we have a stock, or a supply of a good for this purpose, we must be indifferent between each every unit of it, otherwise, it does not constitute a stock, or a supply of a good. Rather, we have, necessarily, different goods, and the law of diminishing marginal utility, seemingly, *cannot* apply. So, if we want our law of diminishing marginal utility, we must, accept, perforce, also, indifference. If we cavil at the latter, then, it is not so much that the law of diminishing marginal utility is wrong; it is that, rather, that it cannot apply at all. If the world is filled with totally heterogeneous goods, and there are no stocks or supplies of any good at all, then this law is inapplicable.

What is the flaw in this argument? It commits the fallacy of not distinguishing between that which is physically indistinguishable, on the one hand, and that which is equal serviceable, on the other.

Consider water. One gallon of this liquid has pretty much the same chemical ingredients as any other. Apart from impurities, which we shall ignore, they are identical. But are they equally serviceable? Not at all. It is clear that the fifth gallon of water mentioned above is not at all equally serviceable as the first one. That is what the law of diminishing marginal utility is all about. So, yes, if the water is “equally serviceable,” if that is how the supply or stock of water is defined, then Austrians have a problem. For, “equally serviceable” is exceedingly difficult to distinguish from “indifferent between.” But this is not at all how praxeologists would define the matter. For Austrian economists, the water, or the beer, or the copper, is physically or chemically indistinguishable from any other unit of these goods. But, we of course need not be indifferent, or, consider equally serviceable, these different units.

## 8. Conclusion

Austrians have no dog in the fight over whether Giffen goods (and BBSCLs) can exist, thus implying upward sloping demand curves (downward sloping supply curves). The “law” of demand (demand curves have a negative slope) is itself merely a matter of thymology, not praxeology; it is at best a useful heuristic device, for some, as is the triangle for ABCT. If the Giffen good exists, it is at no cost to the Austrian school of economics. Praxeologists do indeed see diminishing marginal utility as a

legitimate and basic law of economics. And, the way to interpret the supply of goods, so as not to be open to the charge of logical inconsistency regarding indifference, is in terms of physical or chemical indistinguishableness, not as equal serviceability. The latter lead straight to the legitimacy of indifference.

## References

1. Barnett, William II and Walter Block. 2006. "On Hayekian Triangle", *Procesos De Mercado: Revista Europea De Economia Politica*; Vol. III, No. 2, Fall, pp. 39-141; <http://tinyurl.com/2zkvj7>; <http://mises.org/journals/scholar/block18.pdf>.
2. Barnett, William II and Walter E. Block. 2008. "Economic Singularism", *Research in the History of Economic Thought & Methodology*. Vol. 26-A, pp. 15-30.
3. Barnett, William II and Walter E. Block. 2009. "Scale of values violates singularism", *Dialogue*, Vol. 3, pp. 81-91; <http://www.uni-svishtov.bg/dialog/2009/3.2009-WB.pdf>.
4. Block, Walter. 1980. "On Robert Nozick's 'On Austrian Methodology'", *Inquiry*, Vol. 23, No. 4, Fall, pp. 397-444.
5. Block, Walter. 1999. "Austrian Theorizing, Recalling the Foundations: Reply to Caplan", *Quarterly Journal of Austrian Economics*, Vol. 2, No. 4, winter, pp. 21-39; [http://www.mises.org/journals/qjae/pdf/qjae2\\_4\\_2.pdf](http://www.mises.org/journals/qjae/pdf/qjae2_4_2.pdf); errata: [http://www.mises.org/journals/qjae/pdf/qjae2\\_4\\_9.pdf](http://www.mises.org/journals/qjae/pdf/qjae2_4_9.pdf).
6. Block, Walter. 2003. "Realism: Austrian vs. Neoclassical Economics, Reply to Caplan", *Quarterly Journal of Austrian Economics*, Vol. 6, No. 3, Fall, pp. 63-76; [http://www.mises.org/journals/qjae/pdf/qjae6\\_3\\_4.pdf](http://www.mises.org/journals/qjae/pdf/qjae6_3_4.pdf).
7. Block, Walter. 2005. "Rejoinder to Caplan on Bayesian Economics", *Journal of Libertarian Studies*. Vol. 19, No. 1, Winter, pp. 79-95; <http://blog.mises.org/blog/archives/003654.asp>.
8. Block, Walter. 2007. "Reply to Caplan on Austrian Economic Methodology", *Corporate Ownership & Control*, Vol. 4, No. 2, November, pp. 312-zz.
9. [http://www.virtusinterpress.org/additional\\_files/journ\\_coc/issues/COC\\_\(Volume\\_4\\_Issue\\_3\\_Spring\\_2007\\_Continued2\).pdf](http://www.virtusinterpress.org/additional_files/journ_coc/issues/COC_(Volume_4_Issue_3_Spring_2007_Continued2).pdf).
10. Block, Walter E. and William Barnett, II. 2012, forthcoming. "Giffen Goods, Backward Bending Supply Curves, Price Controls and Praxeology; or, Who's Afraid of the Big Bad Boogie Man of Giffen Goods and Backward Bending Supply Curves? Not Us." *Revista Procesos de Mercado*.
11. Caplan, Bryan. 1999. "The Austrian Search for Realistic Foundations", *Southern Economic Journal*, April, Vol. 65, No. 4, pp. 823-838.
12. Caplan, Bryan, 2000. "Probability, Common Sense, and Realism: A Reply to Hulsmann and Block", *Quarterly Journal of Austrian Economics*, Vol. 4, No. 2, Summer, pp. 69-86; [http://www.mises.org/journals/qjae/pdf/qjae4\\_2\\_6.pdf](http://www.mises.org/journals/qjae/pdf/qjae4_2_6.pdf).
13. Caplan, Bryan. 2001. "Probability, Common Sense, and Realism: A Reply to Hulsmann and Block", *Quarterly Journal of Austrian Economics*; Vol. 2, No. 4, summer, pp. 69-86; [http://www.mises.org/journals/qjae/pdf/qjae4\\_2\\_6.pdf](http://www.mises.org/journals/qjae/pdf/qjae4_2_6.pdf).
14. Caplan, Bryan. 2003. "Probability and the Synthetic *A Priori*: A Reply to Block", *Quarterly Journal of Austrian Economics*; Vol. 6, No. 3, Fall, pp. 77-83; [http://www.mises.org/journals/qjae/pdf/qjae6\\_3\\_5.pdf](http://www.mises.org/journals/qjae/pdf/qjae6_3_5.pdf).
15. Callahan, Gene. 2003. "Choice and Preference," February 10; <http://mises.org/story/1163>.

16. Carilli, Anthony M., and Dempster, Gregory M. 2003. "A note on the treatment of uncertainty in economics and finance", *Journal of Education for Business* 79.2 Nov. 1, pp. 99-103.
17. Garrison, Roger W. 1985. "Predictable Behavior: Comment", *American Economic Review*, 75(3) June, pp. 576-78; <http://www.auburn.edu/~garriro/j7rheiner.htm>;  
<http://www.jstor.org/stable/1814830>.
18. Gordon, David. 1993. "Toward a Deconstruction of Utility and Welfare Economics", *The Review of Austrian Economics*, Vol. 6, No. 2, pp. 99-112;  
[http://www.mises.org/journals/rae/pdf/RAE6\\_2\\_4.pdf](http://www.mises.org/journals/rae/pdf/RAE6_2_4.pdf).
19. Greaves, Percy L. Jr. 1974. *Mises Made Easier: A Glossary for Ludwig von Mises's Human Action*, Dobbs Ferry, New York: Free Market Books, <http://mises.org/easier/P.asp#61>.
20. Heiner, Ronald. 1983. "The Origin of Predictable Behavior", *American Economic Review*, 73:560-595.
21. Herbener, Jeffrey M. 1979. "The Pareto Rule and Welfare Economics", *Review of Austrian Economics*, Vol. 10 Num. 1, pp. 79-106;  
[http://www.mises.org/journals/rae/pdf/RAE10\\_1\\_4.pdf](http://www.mises.org/journals/rae/pdf/RAE10_1_4.pdf).
22. Hoppe, Hans-Hermann. 1992. *On Praxeology and the Praxeological Foundation of Epistemology and Ethics*, Herbener, J., ed., *The Meaning of Ludwig von Mises*, Boston: Dordrecht.
23. Hoppe, Hans-Hermann. 1995. *Economic Science and the Austrian Method*, Auburn, AL: The Mises Institute.
24. Hoppe, Hans-Hermann. 1988. *Praxeology and Economic Science*, Auburn, Al.: Mises Institute, Auburn University; <http://www.mises.org/esandtam/pes1.asp>.
25. Hülsmann, Jörg Guido. 1999. "Economic Science and Neoclassicism", *Quarterly Journal of Austrian Economics*, Vol. 2 Num. 4, pp. 1-20;  
[http://www.mises.org/journals/qjae/pdf/qjae2\\_4\\_1.pdf](http://www.mises.org/journals/qjae/pdf/qjae2_4_1.pdf).
26. Lavoie, Don and Vergil Henry Storr. 2001. "Distinction or Dichotomy: Rethinking the Line between Thymology and Praxeology", Paper prepared for the 71<sup>st</sup> Annual Meeting of the *Southern Economic Association* (November 17-19, 2001; Tampa, Florida);  
<http://www.donlavoie.org/docs/distinctiond.doc>.
27. Long, Roderick. 2004. *Realism and Abstraction in Economics: Aristotle and Mises versus Friedman*; <http://mises.org/pdf/asc/2004/long.pdf>.
28. Menger, Carl. ([1871] 1976) *Principles of Economics*. New York: New York University Press.
29. Mises, Ludwig von. 1949. *Human Action: A Treatise on Economics*, San Francisco: Fox&Wilkes.
30. Mises, Ludwig von. 1981. *Socialism*, Indianapolis: Liberty Fund.
31. Mises, Ludwig von. 2003. *Epistemological Problems of Economics*, Auburn Alabama: Ludwig von Mises Institute.
32. Mises, Ludwig von [1957] 1969. *Theory and History: An Interpretation of Social and Economic Evolution*. New Rochelle, New York: Arlington House.
33. Mises, Ludwig von [1962] 1978. *The Ultimate Foundation of Economic Science: An Essay on Method*. Kansas City: Sheed Andrews & McMeel.
34. Nozick, Robert. 1977. "On Austrian Methodology", *Synthese*, Vol. 36, 1977, pp. 353-392.
35. Rothbard, Murray N. 1997 [1956]. "Toward a Reconstruction of Utility and Welfare Economics", reprinted in *The Logic of Action* Vol. I. Lyme, NH: Edward Elgar. pp. 211-254;  
<http://www.mises.org/rothbard/toward.pdf>.
36. Rothbard, Murray N. (2004 [1962]). *Man, Economy and State*, Auburn AL: Ludwig von Mises Institute, Scholar's Edition; <http://www.mises.org/rothbard/mes.asp>.



37. Selgin, George A. 1988. "Praxeology and Understanding: An Analysis of the Controversy in Austrian Economics", *Review of Austrian Economics*, Vol. 2, pp. 19-58.
38. Sunwall, Mark R. 2005. "In the Praenumbra of Praxiology: Towards a Thymology of Tyranny based on the Psychology of Hegemonic Bonds," June 27;  
<http://www.mises.org/journals/scholar/Sunwall2.pdf>.

## Notes

1. These authors state that "there is no need to dichotomize them (praxeology and thymology) from one another in the way Mises sometimes did." The present author sides with Mises on this matter.
2. See also Mises, [1933] 1981, 152-155, 183-202; [1949] 1966, 12, 123-127, 486-488; [1957] 1969, 264-284; [1962] 1978, 47-48.
3. See on this Barnett and Block, 2006.
4. Source: Hoppe, 1988; see also Hoppe 1992, 1995; Selgin, 1988.
5. This is a thymological, psychological or historical claim.
6. For a critique of this concept, see Block and Barnett, forthcoming.
7. While it is thymologically possible to distinguish the Giffen from the Veblen good, this cannot be done so praxeologically. All we can know from the latter perspective is that price rises and demand increases, or, price falls and so does demand. We cannot as praxeologists peer behind the veil of human motivations to discern the cause of such behavior.
8. For an elaboration of these considerations, see Barnett and Block, 2008, 2009.
9. There is not a single solitary demand curve that appears in Mises, 1949.
10. This applies, too, to Menger, 1871, and Rothbard, 2004, both of whom make use of hierarchies between horses and gold ounces. If all choices are binary, then, strictly speaking, this mode of analysis is invalid.
11. See on this Rothbard, 1956; also Gordon, 1993 and Herbener, 1979.
12. Does this statement contradict our singularistic criticism of the demand curve, to the effect that the economic actor chooses only between *two* alternatives, that which is picked, and the next best alternative foregone? A superficial reading of the text would indicate that it does. After all, we posit not two but rather five opportunities. But the answer is No. At any one time, the owner of the water *always* chooses one option, and sets aside all others, and the latter, no matter how many of them there are, fall under the rubric of rejected choices.
13. For a neoclassical-Austrian debate on indifference, see Block, 1999, 2003, 2005, 2007; Caplan, 1999, 2000, 2001, 2003; Callahan, 2003; Carilli and Dempster, 2003; Hulsmann, 1999.
14. Who says Austrian economists cannot deal with highly technical mathematical equations?
15. See on this Nozick, 1977; for a refutation, see Block, 1980.