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DISSOLVING A MUDDLE IN ECONOMICS,
or DR. MARX MEETS LORD RUSSELL*

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There are techniques of mathematical logic which are well suited to analysis and clarification of the concept of economic value. This essay reviews some important prior discussions of such value, exhibiting a confusion therein. Methods adapted from Bertrand Russell's analysis of the concept of number are used in this paper to lay down a sound definition of economic value.

The result is a definition which is (1) objective, (2) quantitative, (3) not open to the criticisms that cripple previous proposals, and (4) offers a conceptual clarification for economics.

I. Value

In her preface to the second edition of *An Essay on Marxian Economics*, Joan Robinson writes

... in spite of the offence which it has given, I cannot withdraw the remark at the end of Chapter III. The concept of *value* seems to me to be a remarkable example of how a metaphysical notion can inspire original thought, though in itself it is quite devoid of operational meaning. (*Op. cit.*, p. xi, emphasis in original.)

*The theory expounded here grew out of extensive discussion with Dr. Victor Elconin (West Coast University) and Professor Newman Fisher (San Francisco State University). Warm thanks go to Professor William Jacobs (Calif. State Univ., Los Angeles) for helping to christen Baros, Thermos and Megethos. I wish also to thank Professor J. Roger Lee (Calif. State Univ., Los Angeles) who, began nagging me to write, and subsequently improve, this paper.

The offending statement appears on p. 22 of Robinson's *Essay*; . . . no point of substance in Marx's argument depends on the labour theory of value. Voltaire remarked that it is possible to kill a flock of sheep by witchcraft if you give them plenty of arsenic at the same time. The sheep, in this figure, may well stand for the complacent apologists of capitalism; Marx's penetrating insight and bitter hatred supply the arsenic, while the labour theory of value provides the incantation.

To emphasize her claim about the metaphysical (i.e., I take it, the meaningless) character of the concept, Robinson puts the suspect term in italics in most of her book, and in particular in those places where, as she believes, the uselessness or actual disutility of the concept is most manifest (e.g., *op.cit.* pp. 26-28).

Robinson's fire is directed explicitly at Karl Marx's doctrine of value. According to Marx, on p. 37 of *Capital*, the exchange of commodities is ". . . an act characterized by a total abstraction from" the properties that make them useful, make them, as Marx puts it, use-values. He says, *loc. cit.*

A given commodity, e.g., a quarter of wheat is exchanged for x blacking, y silk, or z gold, &c. . . in the most different proportions. . . But since x blacking, y silk or z gold, &c., each represent the exchange-value of one quarter of wheat, [they] must, as exchange-values be replaceable by each other, or equal to each other. Therefore, first: the valid exchange-values of a given commodity express something equal; secondly, exchange-value. . . is only the mode of expression, the phenomenal form, of something contained in it.

Farther on, discussing an exchange of two commodities, Marx writes that in the two different things

. . . there exists in equal quantities something common to both. The two. . . must therefore be equal to a third, which in itself is neither the one nor the other. Each of them. . . must therefore be reducible to this third.

. . . the exchange-values of commodities must be capable of being expressed in terms of something common to them all.

The "something" common to all commodities, Marx finds, is the labor expended in production. He says, *ibid.*, p. 38, that after abstracting from the useful properties of goods and from the distinctions among the various kinds of labor employed,

. . . there is nothing left but what is common to them all; all are reduced to one and the same sort of labour, human labour in the abstract.

Let us now consider the residue of each of these products; it consists of the same unsubstantial reality in each, a mere conglomeration of homogene-

ous human labour . . . all that these now tell us is, that human labour-power has been expended in their production, that human labour is embodied in them. When looked at as crystals of this social substance, common to them all, they are--Values.

So, according to Marx, the value of a commodity is the same as the amount of "human labour in the abstract" expended in producing it. How then, are amounts of value to be measured? Marx says, *ibid.*,

Plainly, by the quantity of the value-creating substance, the labour, contained in this article. The quantity of labour, however, is measured by its duration, and labour-time in its turn finds it standard in weeks, days, and hours.

The last two quotations may be taken as Marx's theory of value, summarized in his aphorism, "As values, all commodities are only definite masses of congealed labour-time" (*ibid.*, p. 40).

It is no news that Marx's theory is an elaboration of, but no essential advance on, the views of the so-called classical economists such as Adam Smith (see e.g., Bk. I, Ch. V of *An Inquiry into the Nature and Causes of the Wealth of Nations*). It is also no news that Robinson is not the first to reject the theory. For example, Bertrand Russell, writing in 1896, said of Marx's theory,

Marx's proof is fallacious in *method*; we can never be sure, by mere abstraction of differences, that we have hit on the *only* common quality of a number of things, or that the quality we have hit on is the relevant one. His proof is fallacious in *substance*, for commodities have also another common quality, utility namely, or the power of satisfying some need. (*German Social Democracy*, p. 17, emphasis in original.)

Critics of the Marxist view have picked at it on many grounds. For instance, Eugen Bohm von Bawerk, in *Karl Marx and the Close of his System*, presents what he takes to be a conclusive, destructive study of the labor theory, amplifying and completing the analysis he had made earlier in his *Capital and Interest*. One of the principal charges is that the labor theory is circular: it is proposed as an explanation of how commodities come to be exchanged in the proportions that they do, e.g., in the market, yet it is the exchange value that is used to determine the labor value in commodities. Indeed, it is argued, the Marxist qualification that value is to be measured by the "socially necessary" labor expended, "congealed" and "crystallized" in commodities, reduces still farther the

possibility of giving independent content to the labor theory apart from the concept of exchange value. This even though the former is supposed to provide an explication of the latter (see, e.g., Robert Nozick, *Anarchy, State and Utopia*, pp. 253-62). Again, critics hold that the conception of "human labor in the abstract", or of "homogeneous human labor", is unhappily vague and terribly confused, incapable of unambiguous explanation or specification.

Much of Böhm-Bawerk's *Capital and Interest* is a thorough criticism of a variety of competing theories of value, and not that of Marx alone. These are all, he finds, unsatisfactory, for the same sorts of reasons brought to bear against the labor theory: logical incoherence, lack of empirical content, being misleading or positively erroneous in explicating concrete economic phenomena, &c. To repair the deficiency, Böhm-Bawerk adopts the so-called "subjective theory" of value. He gives a succinct formulation in *The Positive Theory of Capital*:

... formally defined, value is the importance which a good or complex of goods possesses with respect to the wellbeing of a subject... goods can only have an effective importance for human wellbeing in one way, viz. by being the indispensable condition, the *sine qua non*, of some one utility which subserves it... we shall define [value], unambiguously and exactly, as : That importance which goods or complexes of goods acquire, as the recognized condition of a utility which makes for the wellbeing of a subject, and would not be obtained without them. (*Op. cit.*, p. 135.)

Moreover, he writes (*ibid*, pp. 135-6):

All goods have usefulness, but all goods have not value. For the emergence of value there must be scarcity... relative to the demand for the particular class of goods... goods acquire value when the whole available stock of them is not sufficient to cover the wants depending on them for satisfaction, or when the stock would not be sufficient without these particular goods.

The subjective theory is a major doctrine of the so-called "Austrian school" of economists, of which Böhm-Bawerk was a prominent early member. The theory seems to escape most of the criticisms specifically directed at Marx's labor theory, as well as those aimed at other extant "objective" theories. No doubt this explains in part, at least, why the subjective theory commended itself to the Austrian economists.

Unhappily for economists' peace of mind, the subjective theory is in its turn not without difficulties of its own. This is evident from a consideration of Ludwig von Mises' exposition:

If in accordance with an objective theory of value the possibility of an objective concept of commodity-values is accepted, and exchange is regarded as the reciprocal surrender of equivalent goods, then the conclusion necessarily follows that exchange transactions must be preceded by measurement of the quantity of value contained in each of the objects that are to be exchanged.

But modern value theory has a different starting point. It conceives of value as the significance attributed to individual commodity units by a human being who wishes to consume or otherwise dispose of various commodities to the best advantage. (L. von Mises, *The Theory of Money and Credit*, p. 38.)

The subjective theory does not try to make *quantitative* estimates of value. According to von Mises, *ibid.*, p. 39,

But subjective valuation, which is the pivot of all economic activity, only arranges commodities in order of their significance; it does not measure this significance.

From the subjective view, says von Mises (*ibid.*, pp. 46-47),

Value can rightly be spoken of only with regard to specific acts of appraisal. It exists in such connexions only; there is no value outside the process of valuation. There is no such thing as abstract value.

The proper notion of value, for the Austrian school, is "subjective use-value", and this, all parties seem to agree, is not susceptible to objective measurement. Therefore, von Mises writes (*ibid.*, p. 45), "If it is impossible to measure subjective use-value, it follows directly that it is impracticable to ascribe 'quantity' to it."

This subjective doctrine is open to the charge of circularity just as the classical theory is. For, what more is discovered about value in exchange, on this view, other than that traders exchange commodities in various ratios? The circularity becomes more patent upon recalling that what people do is not always what, in any reasonable sense of the term, they *want* to do. After all, people often act compulsively, impulsively, under duress, etc. Thus, the Austrian school must concede that many exchanges occur in ways that do not necessarily reflect the subjective valuation of the principals, unless the term "subjective valuation" is being persuasively redefined as the notion it purportedly helps explain.

So, both the classical and the Austrian schools propose to explain the economic conception of value in self-stultifying and unfortunately speculative ways. In part, this derives from a

confusion, avoided in the theory expounded below, between what a quantity *is* and what may be causally or functionally related to some concrete situations being appropriately characterized by determinate values of that quantity. This may be seen more clearly by analogy with a similar situation that might be imagined arising about the notion of *volume*.

II. Confusion

Imagine the savant Baros announcing the results of his cogitations. "Volume is a sublation," he announces. "It is the reciprocal negation of that which is the agent of compression, as is evident from my experiments. Thus, volume really is nothing but pressure expressed in an outward phenomenal form of inversion; it *is* pressure."

At once Baros is challenged.

"You have neglected the intensity of the Pholgistication, not to say anything of its accumulation. In fact, volume is a direct manifestation of *la motrice de feu*. For as one fires up a gas, that gas exerts itself to fill all space, and inversely as one damps the fire, the gas retreats and coils in upon itself. In a word then, volume is nothing more or less than temperature, that only, and directly." This from Thermos.

Impatient, scornful, Megethos interrupts. "Bah!" says he, "You have both been misled, deceived by the epiphenomena. You fight over the shadows and meanwhile the horse has run away--to my stable. Merely consider, my learned friends, that as you increase or decrease the amount of matter, the gas obediently increases or decreases its extension. Ergo, volume is nothing else than mass."

I venture that my three sages are disputing with only a little more silliness than the economists arguing about what value "really" is. It is not hard to resolve the perplexity in which Baros, Thermos and Megethos find themselves. It suffices to point out that since everything is what it is and not another thing, then volume in particular is--volume, and not anything else. Volume is a geometrical magnitude. This or that influence - pressure, temperature, quantity of matter, or what have you - may be causally or functionally related to the volume of a physical thing, as in the ideal gas law. But that ought not, and I am sure usually does not, lead anyone to think volume *is* any one or any combination of those other things.

Analogously, it seems to me, the economists' argument whether value is really congealed labor, or subjective marginal utility, or objective usefulness, or whatnot, is equally futile. It is tempting to say, as G.E. Moore might have, that value is value, and that is all there is to it. Indeed, I think it is true that value is value, but I also believe there is just a bit more to say about it.

III. Abstraction

My thesis is a simple one: The economic value of a thing is just what it will fetch in the market. Since the idea is so simple it may easily be misunderstood. So I here improve the opportunity to amplify and complicate.

To prepare the way, I review Bertrand Russell's celebrated definition of natural number (see *Principles of Mathematics*, Ch. IX). What, for example, is the number of justices on the Supreme Court? Well, it is the number of players in the starting lineup of the St. Louis Browns or the Jersey City Giants. It is also the number of major planets in this solar system, the number of eggs left from a dozen after making a three-egg omelet, the number of chapters in any book of Plotinus' *Enneads*, the number of syllables needed to complete a *haiku* after eight have been set down, &c. All the sets mentioned just now *have the same number*. The metaphysical question that arises is, what is that number that all these sets "have"? What sort of thing is it? What realm of being does it inhabit?

Russell, following Frege, noted that, whatever else may be true of the several sets that "have" the same number, a necessary condition for two sets to have the same number is that the elements of the sets can be matched in a one-to-one correspondence. For instance, the set of fingers on a child's hand is put in one-to-one correspondence with the set of pigs in the nursery game that begins "One little piggy went to market. . . ." Given any set of individuals, then, there are indefinitely many other sets with which the given set is in one-to-one correspondence. It is said that such sets are *similar* to one another. On Russell's view, all the sets similar to one another in the sense just prescribed form a class of sets, a subclass of the class of all sets of individuals. Thus, there is a class among the members of which are the set of Erinyes, the set of principals in a

menage a trois, the set of instruments needed to play the *Ghost Trio*, and so forth. Such a class is an *equivalence class* with respect to the relation of similarity, since: (1) every set is similar to itself, (2) if one set is similar to another, then that other is similar to the one, and (3) if one set is similar to a second, and the second to a third, then the first is similar to the third. In other words, similarity is reflexive, symmetric and transitive, i.e., it is an equivalence relation. Certainly one thing the sets belonging to one of these equivalence classes have in common is that they all belong to the same club. Moreover, membership in such a club is determined by what appears to be essential and primitive in the notion of "having the same number".

Russell's proposal, then, was to construe the number a set "has" as just that equivalence class to which it belongs. The number three, for instance, is the equivalence class of which the set of Erinyes is a typical member, and the number nine is the equivalence class of which the set of Supreme Court Justices is a member, and so on. To complete the tale, Russell then construed the term "number" as referring to the class of all such equivalence classes.

From the Russellian standpoint, numbers have been shown to be definable as logical constructions from less problematic entities, and the speculations of metaphysicians and numerologists are seen to be beside the point for the purposes of mathematics and its applications.

Russell's method may be characterized in general. He forms a *partition* of the overall class (for the case of number, the class of sets of individuals) into subclasses which (1) are jointly exhaustive of the overall class, (2) are mutually disjoint, and (3) are equivalence classes with respect to an appropriate equivalence relation (in the case of number, that relation is similarity). He then defines any specific entity of the required sort (e.g., the number three) as an appropriate one of those equivalence classes, and interprets the general concept (e.g., number) as the class of all such equivalence classes. That general concept and its specific instances, then, are *abstractions* from the more concrete entities that go to form the equivalence classes.

This method of abstraction is of quite general application in mathematics. The procedure has been adapted, for example, to explicate the concept of physical quantity, e.g., length, dur-

ation, temperature, &c., as that concept is employed in the natural sciences (see Chapter Six of my dissertation, *Space, Time and Measure: A Study in the Philosophy of David Hume*). Here I propose to apply the same point of view to analysis of the concept of economic value.

IV. Exchange

That one quarter of wheat exchanged, at a given time, for x blacking or y silk or z gold, &c., was taken by Marx to show that those quantities of those commodities were of equal value. Had he stopped there and thought a bit Marx might well have avoided the metaphysical muddle embodied in the notions of "human labor in the abstract" and "crystallized human labor" and the rest.

Suppose that a pint of milk, a pound of bananas, 0.0001 ounce of gold, . . . , are commodities that on Marx's view have the same value. Thus, they belong to *the same equivalence class with respect to the relation of exchangeability*. Similarly, a ticket to a concert, a copy of a best-selling novel, an eye-jangling sport shirt, . . . , may be equally exchangeable, belonging to another equivalence class with respect to exchangeability. Again, an automobile of a certain make, an elaborate recording sound system, an airline ticket around the world, a set of tools, an acre of desert land, . . . , may also be exchangeable, all falling into yet another equivalence class. In general, at any time, the class of commodities is partitioned into subclasses such that all the members of any one such subclass are exchangeable, even-stephen, one with another. For the purposes of economics, the exchange relation is a equivalence relation. For, (1) any commodity is exchangeable for some commodity or other, (2) if one commodity is exchangeable with another then that other is exchangeable with the one, and (3) if one commodity is exchangeable with a second and that second with a third, then the first is exchangeable with the third. From these conditions it follows, by a simple exercise in quantificational logic, that exchangeability is reflexive, symmetric, and transitive, and hence that it is an equivalence relation. It is not unreasonable, therefore, to *define* the value of a commodity as *that exchange equivalence class to which it belongs*, and to define the class of values in general as *the class of all such equivalence classes*.

Since economists have always known that commodities that exchange evenly, like Marx's quarter of wheat, x blacking, y silk, z gold, &c., are of equal value, it is by no means a surprise to discover that that is what value amounts to. No farther elaboration, with tales of labor expended, subjective wants expressed, actual utilities, or whatnot, either need or should have been told *in order to understand what value is*.

Value so construed is a quantitative concept, for it is easy to define addition, subtraction, negation, multiplication and division by real numbers, and the rest. To illustrate, if A is one value and B another, then $A + B$ is the value of the composite commodity composed of any one element of A together with any one element of B . An example may be useful: let A be the value of a quart of milk and B the value of a dozen eggs; then $A + B$ is the value of the composite commodity one-quart-of-milk-with-one dozen-eggs, which is, perhaps, the same as the value of one pound of hamburger. Again, if A is the value of a gallon of gasoline, then $1.5 A$ is the value of a gallon and a half of gasoline, which may be the same as the value of a pair of socks. It is even possible to introduce the notion of negative values. Thus in order to "exchange" a load of trash or garbage, the person who wants to dispose of it may have to *give* some other commodity, money for instance, to have it taken away.

The present proposal also helps to understand money. The pint of milk, pound of bananas and 0.0001 ounce of gold with which I began were all supposed to worth \$.25. In the days before clad coins and unbacked paper currency, gold and silver counted as money. But gold and silver are commodities, like any others, useful for some purposes, like filling teeth or making jewelry, and esteemed by some or scorned by others just as chocolate bars or racing cars may be. The precious metals, however, have certain virtues over other commodities, bananas say, for business purposes. They don't spoil, they are easily handled, and they are nearly universally acceptable in trade for other commodities. It is therefore convenient to use standard quantities of them as representative of the various equivalence classes into which those standard quantities would fall. So the \$.25 which I took to be the price of a pound of bananas would *be*, in the days of real money, a definite quantity of gold or silver or else a guaranteed certificate attesting a valid claim to such a quantity of gold or silver. Money therefore, is no more nor less than a standard commodity uni-

versally recognized as exchangeable in appropriate amounts for other commodities. In more abstract mathematical terms, a sum of money is a standard representative of the equivalence class to which it belongs.

In more detail, the various denominations of money may be regarded as providing units in which to measure values, just as the various multiples and submultiples of the meter, inch, or what you will, allow expressing the measure of other lengths relative to those selected lengths. For instance, the measure of foot in inches is a pure number, 12; the measure of the circumference of the Earth in miles is approximately 25,000; &c. Similarly, the measure of *the value of a pound of bananas* in cents is 25, according to my example; *the measure of the retail value of a gallon of gasoline* in dollars is, say, 0.609; &c. This choice of money (i.e., gold or silver or wampum or clam shells or whatever) to provide units of measure is, however, purely a matter of convenience, and sometimes other commodities provide more useful measures. Thus, quite frequently in *The Wealth of Nations* Adam Smith uses standard quantities of grain (he calls it "corn") to provide a measure for comparison of economic values at different times and places. Often another commodity, working time, is used to measure economic values. For example, in the San Fernando Valley edition of the *Los Angeles Times* for 6th September 1975 there is an advertisement urging readers to buy automobiles. The persuasion includes the following:

8. The cost of a new car now takes less from today's paycheck than it did 10 years ago. Then it took the median wage earner 5.1 months to earn the price of a base four-door car. Today, he can earn a four-door car in 4.4 months.

That is to say, according to the advertisement, in 1975 the number 4.4 is *the measure of the value of a base four-door car* with respect to the working month as unit. (For some amusing examples, see Ch. XXXIII, "Sixth Century Political Economy", in *A Connecticut Yankee at King Arthur's Court* by Mark Twain.)

This admittedly sketchy account may be summarized as recommending that the class of economic values be thought of as a semantical interpretation of the abstract theory of continuous quantity, that is, of what the physicists call "scalars". The class of economic values is a scalar class, i.e., *a continuous, ordered, additive Abelian group with natural number co-*

efficients, for which a class of measure operators isomorphic with the real numbers is defined. (A full account of that theory, including a development of the theory of real numbers may be found in the aforementioned Chapter Six of my dissertation.)

V. Retort

I have already answered the objection that the present proposal ignores the essence, the very meaning, of economic value, that it evades or denies what in the last analysis value ultimately is. That answer, again, is that what others nominate for the office may for all I know be causally or functionally related to value as I have defined it, but they are *not the same* as value. Unlike the other candidates, such as subjective marginal utility or the labor theory, this account defines value objectively according to the actualities of economic exchange; it is not open to Joan Robinson's charge of being either "metaphysical" or devoid of what she calls "operational meaning"; and it separates the question of what value *is* from the question of what *causes* a given commodity to have the value that it does (compare my parable about gas volume, above Sec.II).

Another possible objection is that on this account the value of a commodity may well vary from one time to another or from one place to another, and this, it may be thought, is not compatible with the notion of an object's having value. Once more I reply with an analogy. Length, for example, is a geometrical magnitude, and the class of lengths is a scalar class, namely, the class of sets of congruent line segments. That is what length *is*, for all purposes of mathematics, natural science and engineering. That is in no way inconsistent with the fact that the length *of* some physical object may be a function of other variables, such as temperature or mechanical stress. At any time, for instance, a rubber band has some length or other, but if it is stretched its length changes, in accordance with Hooke's Law perhaps. Similarly, at any time the value of a commodity is what it is, namely, the exchange equivalence class to which it belongs. That is in no way inconsistent with the fact that at some other time, for God knows what reasons, that commodity may well be placed in a different exchange equivalence class.

The complaint of von Mises, quoted above in Sec. I, that on an objective theory such as this "...exchange transactions

must be preceded by the measurement of value contained in each of the objects . . . to be exchanged," is easily met. There is no need for such a prior measurement, for *the consummation of the exchange is the required operation of "measurement"*. That is, the exchange itself is what puts the commodities in their several equivalence classes.

Another objection is that different quantities of "the same" commodity do not always exchange in direct to proportion to those quantities. For instance, milk bought in a half-gallon container costs, say, \$.68, while two quarts cost \$.35 each, i.e. \$.70 for the same quantity of milk. The reply is simply that the commodity being bought is not merely a physical quantity of milk. In the first case the commodity is a *half-gallon of milk in a half-gallon container*, whereas in the second case the commodity (a composite one) is a *half-gallon of milk packaged in two one-quart containers*. There is no obvious reason why these two different commodities must fall into the same exchange equivalence class, i.e., have the same value. Similarly, the exchange value of a tank-truck load of gasoline is not a simple multiple of the retail value of a single gallon of the stuff, nor does any theory I know of require that it be.

Again, the value of a commodity may differ at different times. In California, the value of a gin-and-tonic dispensed in a bar may be \$1.25, before the 2 AM legal closing hour, but after 2 AM, the price may be--well, who knows? In other words, the value of a commodity at any time or place is what it is, the exchange equivalence class into which it falls, although that value may easily be a function of such variables as time, place, legal conditions, relative scarcity, labor expended, &c., &c.

VI. Virtues

The account I have given restores the term "value" to a decent modicum of respectability for the purposes of economics. It is not open to Robinson's charge that it is a metaphysical concept, except insofar as the quibbles about the notion of class by nominalists like Quine are taken seriously. It is also not open to her charge that the concept is "devoid of operational meaning". I construe her use of the word "operational" to mean "having significant content", and on the present account the term "value" *does* have significance.

But the principal virtue of this story is that it is trivial. The present theory provides an opportunity for conceptual clarification, which, once achieved, makes the theory look like what it is: a careful statement of what should be obvious.

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BOUNDARIES ON SOCIAL CONTRACT**'

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Introduction

The central question examined in this paper may be stated at the outset. What are the boundaries or limits on changes in the distribution or assignment of rights among persons in a society that may be "explained" on grounds of continuing social contract? I do not provide more than a few suggestions toward a set of answers. I should argue, nonetheless, that the question is of vital importance in the 1970s. We witness everywhere what must be described as an erosion in the rights of individuals, rights that were previously acknowledged. As social scientists, we are under some obligation to "explain" what is happening, and we must keep in mind that simplest of principles; diagnosis precedes prescription for cure.

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**The central arguments of this paper were initially presented in a seminar on Anarchy at Blacksburg, Virginia in the Spring of 1972. This earlier presentation, under the title, "Before Public Choice", appears in the volume of essays, *Explorations in the Theory of Anarchy*, edited by Gordon Tullock (Center for Study of Public Choice, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 1973).

The general position expressed in this paper is developed more fully in my book, *The Limits of Liberty: Between Anarchy and Leviathan* (Chicago: University of Chicago Press, 1975).

The Social Function of Social Contract

A contract theory of the State is relatively easy to derive on the basis of plausibly acceptable assumptions about individual evaluations, and careful use of this theory can yield major explanatory results. To an extent at least, a "science" exists for the purpose of providing psychologically satisfying explanations of what men can commonly observe about them. Presumably, we "feel better" when we possess some explanatory framework or model that allows us to classify and interpret disparate sense perceptions. This imposition of order on the universe is a "good" in the strict economic sense of this term; men will invest money, time, and effort in acquiring it. The contract theory of the State, in all of its manifestations, can be defended on such grounds. It is important for sociopolitical order and tranquility that ordinary men explain to themselves the working of governmental process in models that conceptually take their bases in cooperative rather than in noncooperative behavior. Admittedly and unabashedly, the contract theory serves, in this sense, a rationalization purpose or objective. We need a "logic of law", a "calculus of consent", a "logic of collective action", to use the titles of three books that embody modern-day contract theory foundations.¹

Can the contract theory of the State serve other objectives, whether these be normative or positive in character? Can institutions which find no conceivable logical derivation in contract among cooperating parties be condemned on other than strictly personal grounds? Can alleged improvements in social arrangements be evaluated on anything other than contractarian precepts, or, to lapse into economists' jargon, on anything other than Paretian criteria? But, even here, are these criteria any more legitimate than any other?

In earlier works, I have tended to ignore or at least to slight these fundamental questions. I have been content to work out, at varying levels of sophistication, the contractarian bases for governmental action, either that which we can commonly observe or that which might be suggested as reforms. To me, this effort seemed relevant and significant. "Political economy" or "public choice"--these seemed to be labels assignable to work that required little or no methodological justification. It was only when I tried to outline a summary treatment of my whole approach to sociopolitical structure that I was stopped

short. I came to realize that the very basis of the contractarian position must be examined more thoroughly.

We know that, factually and historically, the "social contract" is mythological, at least in many of its particulars. Individuals did not come together in some original position and mutually agree on the rules of social intercourse. And even had they done so at some time in history, their decisions could hardly be considered to be contractually binding on all of us who have come behind. We cannot start anew. We can either accept the political universe, or we can try to change it. The question reduces to one of determining the criteria for change.

When and if we fully recognize that the contract is a myth designed in part to rationalize existing institutional structures of society, can we simultaneously use the contractual derivations to develop criteria for evaluating changes or modifications in these structures? I have previously answered this question affirmatively, but without proper argument. The intellectual quality as well as the passionate conviction of those who answer the question negatively suggest that more careful consideration is required.

How can we derive a criterion for determining whether or not a change in law, or, if you will, a change in the assignment of rights is or is not justified? To most social scientists, the only answer is solipsist. Change becomes desirable if "I like it," even though many prefer to dress this up in fanciful "social welfare function" or "public interest" semantics. To me, this seems to be pure escapism; it represents retreat into empty arguments about personal values which spells the end of rational discourse. Perhaps some of our colleagues do possess God-like qualities, or at least they think they do, but until and unless their godliness is accepted, we are left with no basis for discourse. My purpose is to see how far we can rationally discuss criteria for social change on the presumption that no man's values are better than any other man's.

Wicksellian Contract, Constitutionalism, and Rawlsian Justice

Is *agreement* the only test? Is the Wicksellian-contractarian-Paretian answer the only legitimate one here? If so, we are willing to accept its corollaries? Its full implications? Are we willing to forestall all social change that does not

command unanimous or quasi-unanimous consent?

Provisionally, let us say that we do so. We can move a step beyond, while at the same time rationalizing much of what we see, by resorting to "constitutionalism," the science of rules. We can say that particular proposals for social change need not command universal assent provided only that such assent holds for the legal structure within which particular proposals are enacted or chosen. This seems to advance the argument; we seem to be part of the way out of the dilemma. But note that this provides us with no means at all for evaluating particular proposals as "good" or "bad". We can generate many outcomes or results under nonunanimity rules. This explains my initial response to the Arrow impossibility theorem, and to the subsequent discussion. My response was, and is, one of non-surprise at the alleged inconsistency in a social decision process that embodies in itself no criteria for consistency. This also explains my unwillingness to be trapped, save on rare and regretted occasions, into positions of commitment on particular measures of policy on the familiar efficiency grounds. We can offer no policy advice on particular legislative proposals. As political economists, we examine public choices; we can make institutional predictions. We can analyze alternative political-social-economic structures.

But what about constitutional change itself? Can we say nothing, or must we say that, at this level, the contractarian (Wicksellian, Paretian) norm must apply? Once again, observation hardly supports us here. Changes are made, changes that would be acknowledged to be genuinely "constitutional", without anything remotely approaching unanimous consent. Must we reject all such changes out of hand, or can we begin to adduce criteria on some other basis?

Resort to the choice of rules for ordinary parlor games may seem to offer assistance. Influenced greatly by the emphasis on such choices by Rutledge Vining, I once considered this to be the key to genuinely innovative application of the contractarian criteria. If we could, somehow, think of individual participants in a setting of complete uncertainty about their own positions over subsequent rounds of play, we might think of their reaching genuine agreement on a set of rules. The idea of a "fair game" does have real meaning, and this idea can be transferred to sociopolitical institutions. But how far can we go with this? We may, in this process, begin to rationalize

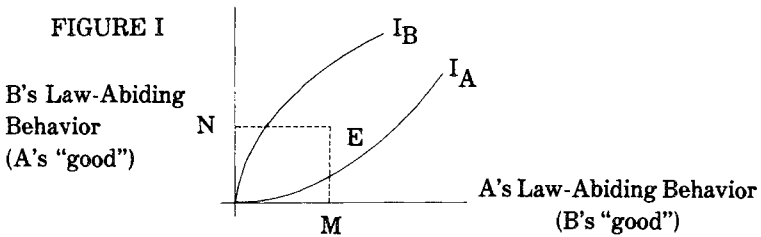
certain institutions that cannot readily be brought within the standard Wicksellian framework. But can we do more? Can we, as John Rawls seems to want to do in his *A Theory of Justice*,² “think ourselves” into a position of original contract and then idealize our thought processes into norms that “should” be imposed as criteria for institutional change? Note that this is, to me, quite different from saying that we derive a possible rationalization. To rationalize, to explain, is not to propose, and Rawls seems to miss this quite critical distinction. It is one thing to say that, conceptually, men in some genuinely constitutional stage of deliberation, operating behind the veil of ignorance, might have agreed to rules something akin to those that we actually observe, but it is quite another thing to say that men, in the here and now, should be forced to abide by specific rules that we imagine by transporting ourselves into some mental-moral equivalent of an original contract setting where men are genuine “moral equals”.

Unless we do so, however, we must always accept whatever structure of rules that exists and seek constitutional changes only through agreement, through consensus. It is this inability to say anything about rules changes, this inability to play God, this inability to raise himself above the masses, that the social philosopher cannot abide. He has an ingrained prejudice against the *status quo*, however this may be defined, understandably so, since his very role, as he interprets it, is one that finds itself only in social reform. (Perhaps this role conception reflects the moral inversion that Michael Polanyi and Craig Roberts note; the shift of moral precepts away from personal behavior aimed at personal salvation and toward moral evaluation of institutions.)

Hobbes and the Natural Distribution

Just what are men saying when they propose nonagreed changes in the basic structure of rights? Are they saying anything more than “this is what I want and since I think the State has the power to impose it, I support the State as the agency to enforce the change”? We may be able to get some handles on this very messy subject by going back to Hobbes. We need to examine the initial leap out of the Hobbesian jungle. How can agreement emerge? And what are the problems of enforcement?

We may represent the reaction equilibrium in the Hobbesian jungle at the origin in the diagrammatics of Figure 1.



If we measure "B's law abiding behaviour" on the ordinate, and "A's law abiding behavior" on the abscissa, it is evident that neither man secures advantage from "lawful" behavior individually and independently of the other man's behavior. (Think of "law abiding" here as "not stealing".) Note that the situation here is quite different from the usual public-goods model in which at least some of the "good" will tend to be produced by one or all of the common or joint consumers even under wholly independent adjustment. With law-abiding as the "good", however, the individual cannot, through his own behaviour, produce so as to increase his own utility. He can do nothing other than provide a "pure" external economy; all benefits accrue to the other parties. Hence, the independent adjustment position involves a corner solution at the origin in our two-person diagram. But gains-from-trade clearly exist in this Hobbesian jungle, despite the absence of unilateral action.

It is easy enough to depict the Pareto region that bounds potential positions of mutual gains by drawing the appropriate indifference contours through the origin as is done in Figure 1. These contours indicate the internal or subjective rates of tradeoff as between *own* and *other* law-abiding. It seems plausible to suggest that the standard convexity properties would apply. The analysis remains largely empty, however, until we know something, or at least postulate something, about the descriptive characteristics of the initial position itself. And the important and relevant point in this respect is that individuals *are not equal*, or at least need not be equal, in such a setting, either in their relative abilities or in their final command over consumables.³ To assume symmetry among persons here amounts to converting a desired normative state, that of equality among men, into a fallacious positive proposition. (This is, of course, a pervasive error, and one that is not

only made by social philosophers. It has had significant and pernicious effects on judicial thinking in the twentieth century.) If we drop the equality or symmetry assumption, however, we can say something about the relative values or trade-offs as between the relative "haves" and "have-nots" in the Hobbesian or natural adjustment equilibrium. For illustrative purposes here, think of the "natural distribution" in our two-person model as characterized by A's enjoyment of ten units of "good", and B's enjoyment of only two units. Both persons expend effort, a "bad" in generating and in maintaining this natural distribution. It is this effort that can be reduced or eliminated through trade, through agreement on laws or rules of respect for property. In this way, both parties can secure more "goods". The post-trade equilibrium must reflect improvement for both parties over the natural distribution or pretrade outcome. There are prospects for Pareto-efficient or Pareto-superior moves from the initial no-rights position to any one of many possible post-trade or positive-rights distribution.

Let us suppose that agreement is reached; each person agrees to an assignment of property rights and, furthermore, each person agrees to respect such rights as are assigned. Let us suppose, for illustration, that the net distribution of "goods" under the assignment is fifteen units for A and seven units for B. Hence, there is a symmetrical sharing of the total gains-from-trade secured from the assignment of rights. Even under such symmetrical sharing, however, note that the relative position of B has improved more than the relative position of A. In our example, A's income increases by one-half, but B's income increases more than twofold. This suggests that the person who fares relatively worse in the natural distribution may well stand to gain relatively more from an initial assignment of rights than the person who fares relatively better in the pretrade state of the world.

The Dilemma in Maintaining Contract

Agreement is attained; both parties enjoy more utility than before. But again the prisoner's dilemma setting must be emphasized. Each of the two persons can anticipate gains by successful unilateral default on the agreement. In Figure 1, if E depicts the position of agreement, A can always gain by a

shift to N if this can be accomplished; similarly, B can gain by a shift to M. There may, however, be an asymmetry present in prospective gains from unilateral default for the person who remains relatively less favored in the natural distribution. In one sense, the "vein of ore" that he can mine by departing from the rules through criminal activity is richer than the similar vein would be for the other party. The productivity of criminal effort is likely to be higher for the man who can steal from his rich neighbor than for the man who has only poor neighbors.

This may be illustrated in the matrix of Figure 2, where the initial pretrade or natural distribution is shown in Cell IV, and the post-trade or positive rights distribution is shown in Cell I.

FIGURE 2

		B	
		Abides by "Law"	Observes no "Law"
A	Abides by "Law"	I 15,7	II 6,12
	Observes no "Law"	III 17,3	IV 10,2

Note that, as depicted, the man who is relatively "poor" in the natural equilibrium, person B in the example, stands to gain relatively more by departing unilaterally from Cell I than person A. Person B could, by such a move, increase his quantity of "goods" from seven to twelve, whereas person A could only increase his from fifteen to seventeen. This example suggests that the relatively "rich" person will necessarily be more interested in policing the activities of the "poor" man, as such, than vice versa. This is of course, widely accepted. But the construction and analysis here can be employed for a more complex and difficult issue that has not been treated adequately.

Dynamics and the Atrophy of Rights

Assume that agreement has been attained; both parties abide by the law; both enjoy the benefits. Time passes. The "rich" man becomes lazy and lethargic. The "poor" man increases his strength. This modifies the natural distribution. Let us say that the natural distribution changes to 6:6. The "rich" man now has an overwhelmingly more significant inter-

est in the maintenance of the legal *status quo* than the "poor" man, who is no longer "poor" in natural ability terms. The initial symmetry in the sharing of gains as between the no-trade and the trade position no longer holds. With the new natural distribution, the "rich" man secures almost all of the net gains.

The example must be made more specific. Assume that the situation is analogous to the one examined by Winston Bush. The initial problem is how is manna which drops from Heaven to be divided among the two persons. The initial natural distribution is in the ratio 10:2 as noted. Recognizing this, along with their own abilities, A and B agree that by assigning rights, they can attain a 15:7 ratio, as noted. Time passes, and B increases in relative strength, but the "goods" are still shared in the 15:7 ratio. The initial set of property rights agreed to on the foundations of the initial natural distribution no longer reflects or mirrors the existing natural distribution. Under these changed conditions, a lapse back into the natural equilibrium will harm B relatively little whereas A will be severely damaged. The "poor" man now has relatively little interest in adherence to law. If this trend continues, and the natural distribution changes further in the direction indicated, the "poor" man may find himself able to secure even net advantages from a lapse back into the Hobbesian jungle.

The model may be described in something like the terms of modern game theory. If the initial natural distribution remains unaltered, the agreed-on assignment of rights possesses qualities like the core in an n -person game. It is to the advantage of no coalition to depart from this assignment or imputation if the remaining members of the group are willing to enforce or to block the imputation. No coalition can do better on its own, or in this model, in the natural distribution, than it does in the assignment. These core-like properties of the assigned distribution under law may, however, begin to lose dominance features as the potential natural distribution shifts around "underneath" the existing structure of rights, so to speak. The foundations of the existing rights structure may be said to have shifted in the process.

This analysis opens up interesting new implications for net redistribution of wealth and for changes in property rights over time. Observed changes in claims to wealth take place without apparent consent. These may be interpreted simply

as the use of the enforcement power of the State by certain coalitions of persons to break the contract. They are overtly shifting from a Cell I into a Cell II or Cell III outcome in the diagram of Figure 2. It is not, of course, difficult to explain why these coalitions arise. It will always be in the interest of a person, or a group of persons, to depart from the agreed-on assignment of claims or rights, provided that he or they can do so unilaterally and without offsetting reactive behavior on the part of the remaining members of the social group. The quasi equilibrium in Cell I is inherently unstable. The equilibrium does qualify as a position on the core of the game, but we must keep in mind that the core analytics presumes the immediate formation of blocking coalitions. In order fully to explain observed departures from *status quo* we must also explain the behaviour of the absence of the potential blocking coalitions. Why do the remaining members of the community fail to enforce the initial assignment of rights?

Enforcement Breakdown

The analysis here suggests that if there has been a sufficiently large shift in the underlying natural distribution, the powers of enforcing adherence on the prospective violators of contract may not exist, or, if they exist, these powers may be demonstrably weakened. In our numerical example, B fares almost as well under the new natural distribution as he does in the continuing assignment of legal rights. hence, A has lost almost all of his blocking power; he can scarcely influence B by threats to plunge the community into Hobbesian anarchy, even if A himself should be willing to do so. And it should also be recognized that "willingness" to enforce the contract (the structure of legal rules, the existing set of claims to property) is as important as the objective ability to do so. Even if A should be physically able to enforce B to return to the *status quo ante* after some attempted departure, he may be unwilling to suffer the personal loss that might be required to make his threat of enforcement credible.⁴ The law-abiding members of the community may find themselves in a genuine dilemma. They may simply be unable to block the unilateral violation of the social contract.

In this perspective, normative arguments based on "justice" in distribution may signal acquiescence in modification in the

existing structure of claims. Just as the idea of contract, itself, has been used to rationalize existing structure, the idea of "justice" may be used to rationalize coerced departures from contract. In the process those who advance such arguments and those who are convinced may "feel better" while their claims are whittled away. This does, I think, explain much attitudinal behavior toward redistribution policy by specific social groups. Gordon Tullock has, in part, explained the prevailing attitudes of many academicians and intellectuals.⁵ The explanation developed here applies more directly to the redistributionist attitudes of the scions of the rich, *e. g.*, the Rockefellers and Kennedys. Joseph Kennedy was less redistributive than his sons; John D. Rockefeller was less redistributive than his grandsons. We do not need to call on the psychologists since our model provides an explanation in the concept of a changing natural distribution. The scions of the wealthy are far less secure in their roles of custodians of wealth than were their forebears. They realize perhaps that their own natural talents simply do not match up, even remotely, to the share of national wealth that they now command. Their apparent passions for the poor may be nothing more than surface reflections of attempts to attain temporary security.

The analysis also suggests that there is a major behavioral difference fostered between the intergenerational transmission of nonhuman and human capital. Within limits, there is an important linkage between human capital and capacity to survive in a natural or Hobbesian environment. There seems to be no such linkage between nonhuman capital and survival in the jungle. From this it follows that the man who possesses human capital is likely to be far less concerned about the "injustice" of his own position, less concerned about temporizing measures designed to shore up apparent leaks in the social system than his counterpart who possesses nonhuman capital. If we postulate that the actual income-asset distribution departs significantly from the proportionate distribution in the underlying and existing natural equilibrium, the system of claims must be acknowledged to be notoriously unstable. The idle rich, possessed of nonhuman capital, will tend to form coalitions with the poor that are designed primarily to ward off retreat toward the Hobbesian jungle. This coalition can take the form of the rich acquiescing in and providing defense for overt criminal activity on the part of the poor, or the more

explicit form of political exploitation of the "silent majority", the constituency that possesses largely human rather than non-human capital.

This description has some empirical content in 1976. But what can the exploited groups do about it? Can the middle classes form a coalition with the rich, especially when the latter are themselves so insecure? Or can they form, instead, another coalition with the poor, accepting a promise of strict adherence to law in exchange for goodies provided by the explicit confiscation of the nonhuman capital of the rich? (Politically, this would take the form of confiscatory inheritance taxation.) The mythology of the American dream probably precludes this route from being taken. The self-made, the *nouveau riche*, seek to provide their children with fortunes that the latter will accept only with guilt.

All of this suggests that a law-abiding imputation becomes increasingly difficult to sustain as its structure departs from what participants conceive to be the natural or Bush-Hobbes imputation, defined in some proportionate sense. If the observed imputation, or set of bounded imputations that are possible under existing legal-constitutional rules, seems to bear no relationship at all to the natural imputation that men accept, breakdown in legal standards is predictable.

We Start From an Ambiguous "Here"

Where does this leave us in trying to discuss criteria for "improvement" in rules, in assignments of rights, the initial question that was posed in this paper? I have argued that the contractarian or Paretian norm is relevant on the simple principle that "we start from here". But "here", the *status quo*, is the existing set of legal institutions and rules. Hence, how can we possibly distinguish genuine contractual changes in "law" from those which take place under the motivations discussed above? Can we really say which changes are defensible "exchanges" from an existing *status quo* position? This is what I was trying to answer, without full success, in my paper in response to Warren J. Samuels' discussion of the *Miller et al. v. Schoene* case.⁶ There I tried to argue that, to the extent that existing rights are held to be subject to continuous redefinition by the State, no one has an incentive to organize and to initiate trades or agreements. This amounts to saying that

once the body politic begins to get overly concerned about the distribution of the pie under existing property-rights assignments and legal rules, once we begin to think either about the personal gains from law-breaking, privately or publicly, or about the disparities between existing imputations and those estimated to be forthcoming under some idealized anarchy, we are necessarily precluding and forestalling the achievement of potential structural changes that might increase the size of the pie for *all*. Too much concern for "justice" acts to insure that "growth" will not take place, and for reasons much more basic than the familiar economic incentives arguments.

In this respect, the early 1970's seemed a century, not a mere decade, away from the early 1960's when, if you recall, the rage was all for growth and the newfound concern about distribution had not yet been invented. At issue here, of course, is the whole conception of the State, or of collective action. I am far less sanguine than I once was concerning the possible acceptance of a reasonably well-defined constitutional-legal framework. If put to it, could any of us accurately describe the real or effective constitution of the United States in 1976? Can we explain much of what we see in terms of continuing change in this effective constitution while we continue to pay lip service to nominal constitutional forms?

The basic structure of property rights is now threatened more seriously than at any period in the two-century history of the United States. In the paper, "The Samaritan's Dilemma," noted above, I advanced the hypothesis that we have witnessed a general loss of strategic courage, brought on in part by economic affluence. As I think more about all this, however, I realize that there is more to it. We may be witnessing the disintegration of our effective constitutional rights, regardless of the prattle about "the constitution" as seen by our judicial tyrants from their own visions of the entrails of their sacrificial beasts. I do not know what might be done about all this, even by those who recognize what is happening. We seem to be left with the question posed at the outset. How do rights re-emerge and come to command respect? How do "laws" emerge that carry with them general respect for their "legitimacy"?

¹ See Gordon Tullock, *The Logic of Law* (New York: Basic Books, 1970); James M. Buchanan and Gordon Tullock, *The Calculus of Consent* (Ann Arbor: University of Michigan Press, 1962); Mancur Olson, *The Logic of Collective Action* (Cambridge: Harvard University Press, 1965).

² John Rawls, *A Theory of Justice* (Cambridge: Harvard University Press, 1971).

³ The formal properties of the "natural distribution" that will emerge under anarchy have been described by Winston Bush in his paper, "Income Distribution in Anarchy" (Virginia Polytechnic Institute and State University, Center for Study of Public Choice Research Paper No. 808231-17, March 1972).

⁴ For a more extensive discussion of these points, see my paper, "The Samaritan's Dilemma" in Edmund Phelps (ed.) *Altruism, Morality and Economic Theory* (New York: Russell Sage Foundation, 1975), pp. 71-86.

⁵ See Gordon Tullock, "The Charity of the Uncharitable", *Western Economic Journal*, IX (December 1971), 379-91.

⁶ See Warren J. Samuels, "Interrelations Between Legal and Economic Processes," *Journal of Law and Economics*, XIV, 2 (October 1971), 435-50, and my, "Politics, Property and the Law," *Journal of Law and Economics* XV (October 1972), 439-452.

⁷ William Niskanen offers this as an explanation for public-sector growth. See, his, "The Pathology of Politics," in R. Selden (ed.) *Capitalism and Freedom: Problems and Prospects* (Charlottesville: University Press of Virginia, 1975), pp. 20-35.

FACTS AND VALUES:
IS THERE A NATURALISTIC FALLACY?

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I. Context

In answer to those philosophers who claim that no relation can be established between ultimate ends or values and the facts of reality, let me stress that the fact that living entities exist and function necessitates the existence of values and of an ultimate value which for any given living entity is its own life. Thus the validation of value judgments is to be achieved by reference to the facts of reality. The fact that a living entity is, determines what it ought to do. So much for the issue of the relation between "is" and "ought".¹

In making this statement, Ayn Rand has challenged a long established philosophical tradition, a tradition that was started with David Hume², reinforced by Kant³, stressed by British Analytic philosophy as the prohibition of arguments from factual premises to normative conclusions⁴ (naturalistic fallacy), promoted by logical positivism as the thesis of emotivism, namely that "pure" normative statements have no "cognitive" but only "emotive" meaning⁵, and adhered to even by an apparent non-conformist like Popper⁶ in his "critical dualism of facts and norms". Clearly, the fact that Rand is opposed to the whole tradition of the dominant academic philosophy concerning a fundamental issue of meta-ethics⁷ does not show that she is wrong. As it will be clear shortly, I will argue in detail that she is perfectly right. But it is worth stressing that the fact just alluded to explains to a considerable degree the resistance of the bulk of academic philosophers to grant Objectivism a serious consideration. Many of them find it sufficient to claim that Objectivist ethics is "naive" since it commits the "naturalistic fallacy", and to conclude from that

that it deserves no further scrutiny.

Since the issue of the relation between facts and values, or the alternative (equivalent) issue of the existence or non-existence of logical entailment relations between factual statements and so called "normative" statements, has not been discussed in an elaborate manner by either Rand or other Objectivist philosophers, the fundamental disagreement on this matter between Objectivists and most academic philosophers creates a communication barrier. This communication barrier is different in nature from those which arise due to the highly emotional, almost hysterical response of some academic philosophers to "egoism". The latter kind of response indicates that no communication is worthwhile--since a person who does not accept that "emotions are not tools of cognition"⁸ cannot be communicated with. But someone who holds that Rand's ethics is mistaken in principle, since it violates what that individual considers to be a logical principle, may be sincerely mistaken. Hence this paper.

II. Purpose

The purpose of the present paper is to examine the claim that Objectivism commits the "naturalistic fallacy" by reflecting on this alleged fallacy itself, and by analyzing, from the point of view of the philosophy of language, the locutionary function of so called "normative expressions" and "normative statements." While the intellectual framework for the discussion is perfectly consistent with Objectivist epistemology (and can be directly embedded in it), it does not depend on it, academically. Rather, I will use, to a large extent, the philosophy of language of an academic philosopher, Yehoshua Bar-Hillel, I will use, though, only those aspects of his philosophy of language which are consistent with Objectivism.

III. Inference and Context

Any linguistic act¹⁰--be that a written or spoken utterance--is always performed in a specific *context*.

This fact may seem perfectly trivial. But it is not. Its importance emerges from the consideration of the following additional points. Any human act, including linguistic acts, is pur-

poseful.¹¹ The purpose of a linguistic act is to affect a listener in a specific manner.¹²

Any communication process (involving speech acts by both interlocutors) is, therefore, determined by the purposes of both interlocutors, one with respect to the other. The purposes may vary--I may wish to inform you about something, obtain your agreement, make you cooperate with me, or even antagonize you. But whatever are my purposes, if I use language to reach them, I have to communicate some information to you.¹³

Now, whenever I communicate information to you, by means of language, I do *not* state explicitly all of it, by means of fully spelled out formulations. Rather, I rely on the fact that our communication takes place in a specific *context*, in order to make my communication as *short* as possible.¹⁴

Indeed, if I tell you "I am hungry" I do not provide you a fully explicit message. Who is hungry? When is he hungry? What business of mine is it? You are to answer these questions, usually for yourself, not on the basis of my stated sentence but on the basis of the *context*. The context tells you (by looking at me and identifying me) who is hungry, what time it is (by looking at a watch) and why you are supposed to care (say, because you have just invited me to a swim, and I indicated that a visit to a restaurant beforehand may be advisable).

Thus, the contextuality of language use implies that when a fact of reality is identified by someone via language, the linguistic formulation is not always (rather, usually not) fully explicit. Rather it relies, to a large degree, on the *context*. More specifically, certain locutions (such as "I", "now" and many others) serve to direct the attention of the listener to the relevant contextual features which have to be taken into account in order to complete the reconstruction of the fact you identify.

The fact that certain linguistic locutions are *indexical*--namely that they serve as means of referring to the context as a source of specific kinds of relevant information--is crucial for the understanding of normative formulations. For I will establish later that all so called "normative locutions" are indexical, and hence that whenever one makes a complete, fully explicit paraphrase of sentences expressed by their means, they are eliminated in terms of fully descriptive locutions. But before reaching this point let us observe that

this fact affects very seriously the issue of inference relations between sentences.

#1. I am hungry.

Hence, I am hungry.

#2. Moshe Kroy is hungry at 2 a.m. 28/8/75.

Hence, I am hungry.

At first inspection, you will accept #1 as valid, #2 as invalid. But this is due to lack of sufficient attention. Actually, if the premise of #1 is made before dinner, by John Doe, and its conclusion is uttered after dinner, the argument is no longer valid. On the other hand, if #2 is uttered by me, Moshe Kroy, at 2 a.m. 28/8/75, #2 is perfectly valid. Clearly, under these circumstances, the premise of #1 identifies a different fact from the one identified by its conclusion, while both premise and conclusion of #2 identify the *same* fact.

Thus, the use of indexical expressions (such as "I" and "am" --which refers to state of existence at the present time, the time of utterance, that is) implies that the issue of the validity or invalidity of arguments cannot be decided just by reference to the *sentences* they involve. An argument is valid only if its premises identify the same facts of reality as its conclusion. But the identification of a fact of reality by a use of sentences in utterances is always contextual. Hence, the evaluation of validity or invalidity of arguments stated in English (or any other natural language) requires taking *context* into account.

This fact, in itself, suffices to cast considerable doubt on the position of those who hold the doctrine that "normative statements" cannot be inferred from "descriptive statements". The point is that the demarcation between "normative" and "descriptive" statements is drawn by reference to a *linguistic* criteria. Normative statements are those which involve, in formulation, locutions such as "value", "should", "ought", "permitted", etc., and descriptive statements are those which do not. But since entailment, or non-entailment, depends not on sentences as such but on the *facts* which these sentences serve to identify, and these facts are always identified by sentences in specific *contexts*, it follows that it is impossible to say anything in general about entailment, or non-entailment, between sentences as such, without reference to the specific context in which they are used. Even #1, which seems to be an obvious case of an immediately valid inference, is not always

valid. It is valid only when both premise and conclusion are uttered by the same speaker, and when the speaker did not eat between the act of uttering the premise and the act of uttering the conclusion.

Thus, whoever claims that no argument with factual premises and normative conclusions is valid tries to do the impossible: to make a general claim about inference relations between *sentences*, without taking into account the *contexts* in which they are used. Hence such a position is strongly suspect to begin with, and its advocate is faced with the task of justifying it. As a matter of historical fact, there has not been a single argument in favor of the claim that normative statements do not follow from descriptive statements. This claim has always been maintained dogmatically--as if it were self-evident, which it obviously is not. So even without a detailed analysis of the use of normative expressions, the rather fragmentary discussion of philosophy of language provided thus far invalidates the position of those upholding the naturalistic fallacy to a considerable degree. But only a complete analysis of these expressions will suffice to show it completely wrong.

IV. Normative Locutions

Consider dialogue #3.

#3. John: I am very tired.

Mother: You should go to sleep.

This is a perfectly natural, perfectly everyday life kind of dialogue. It exhibits the use of the "normative locution" *should*. What is the context for this use?

The context, clearly, is established in part by John's prior utterance and, also, by a knowledge basis common to both John and Mother. John informs Mother he is tired. Mother assumes she and John *agree* that no one *wants* to be tired. Hence she suggests to him the relevant *means* to achieve his implied end--the end of becoming, once again, fresh and widely awake: sleep.

Observe that John could reply with #4.

#4. I enjoy being tired--and I enjoy it all the more so the more tired I am.

#4 is odd--since it is either a joke, or a reflection of some kind of aberration on the side of John. But it cancels the relevance of Mother's reply. Mother, if she really respects John's individuality, would then reply with something like #5.

#5. So don't go to sleep. Stay awake. Want some strong coffee? (Or, if she is a paternalistic authoritarian, would say #6.)

#6. You should go to sleep all the same since I want that you will be refreshed.

In either case, the purpose of "should" is to indicate a relevant means to some end. The end is usually not specified: it is given (or assumed to be given) by *context*. When the assumed end is explicitly withdrawn, or denied, the "should" statement loses all its force.

Thus, in the context where person A assumes person B to desire the end E, and where A takes M to be a relevant means to E (or better, the best means for achieving E, or sometimes the only means available for bringing about E), A may communicate this assumption to B by saying: "You should do M"--abbreviating thereby the much longer "You want to achieve end E, and M is the only (or best) means to realize E".

The word "should" is then an indexical word. It is used in order to *refer* to a specific feature of contextually shared knowledge: the aim (or aims) of the person to whom one addresses the "should" (who may be oneself).

Accordingly a "should" statement is true provided both the following conditions are satisfied:

- i. The person to whom the "should" statement is addressed *wants* to achieve the end which the speaker assumes that person wants to achieve.
- ii. The action which is recommended by the use of "should" is the only means, or best means, to achieve this end.

Thus one can object to a "should" statement on either of two grounds:

- a. One does not have the aim the other assumes one has.
- b. One knows of better means of achieving it--or has reason to suspect the recommended means to be irrelevant, or even damaging from the point of view of one's own aims.

Observe, moreover, that in view of i. and ii. the following argument is valid, provided that its premises and conclusion are stated by the same speaker, consecutively.

#7. You want to become President of the U.S. The only way to become President of the U.S. is to promise to the voters reduction of taxation and government spending. Hence, you should promise to your voters reduction of taxation and government expenses.

#7, however, violates strictures subscribed to by those who uphold the "naturalistic fallacy" claim. It infers a "should" conclusion from factual premises. Therefore it is invalid according to their doctrine. But obviously it is valid. And the fact of its validity refutes the doctrine.

Now, on what *grounds* can someone ascribe a given goal to another? This issue, of the greatest importance to moral philosophy, is totally irrelevant in the present context. Rand holds that one person can address "shoulds" to another on the basis of the principle of *non-contradiction*, as applied to that person's system of goals. None can consistently hold a goal-system which includes one's own death--since one's death will make the realization of that person's other goals impossible. This, however, has no relevance here, even admitting its truth fully, since what I wish to show is that "should" statements are indexical, that they refer to an assumed goal; I do not aim here to get involved in the moral issue of the grounds on which one is entitled to attribute to another goals (or even to recommend goals to another).

The analysis of "should" statements, however, is not restricted to these particular brand of "normative statements". Consider #8.

#8. John: I have promised Aunt Bertha to visit her today.

Mother: So you ought to go and visit her.

This discussion, when its context is brought fully to light, illuminates the nature of "ought" statements. An "ought" statement is true if it follows a *promise* (or more strongly a contractual commitment). By promising, you make your intention to act in a specific manner (usually desirable from the point of view of your interlocutor) known to your interlocutor. The concept of "ought"--which expresses an *obligation*--is usable in a context of such a promise. Each and every "ought" derives from a promise. To say to A that he ought to

do something is to refer to a past promise he made.

This, in itself, has nothing to do with the Objectivist analysis of the reasons why one *should* keep promises. These reasons, which pertain to one's own life as an ultimate *goal* (one which is required by the principle of non-contradiction) and relate to one's specific nature as a rational animal with a volitional consciousness¹⁵, point out that keeping promises is a *means* required by this goal. But even if, per impossible, these reasons would not exist, it would still be true that what one ought to do is what one promised to do--simply due to the contextual nature and meaning of the word "ought"--which refers to an act of promising. But such "thought experiments" cannot really be made--they assume something requiring demonstration, namely the analytic-synthetic dichotomy.¹⁶

Consider now #9.

#9. John: Mr. X tried to kill me, pretending that he was my defender.

George: It is totally permissible for you to take severe retaliatory actions against Mr. X.

Clearly, the "permissible" here is, as the "should" and "ought" before, contextual. It means, when explicitly elaborated, that the action considered is consistent with the totality of John's goals (values). Thus you can oppose a "permissibility" claim by indicating a goal of yours which will be violated by carrying out the "permissible" action. But in any case, the issue is factual. Both "permissible" and "ought", just as "should", refute the doctrine of the naturalistic fallacy. It is not fallacious to argue as in either 10 or in 11:

#10. I promised John to visit him today.

Hence, I ought to visit him today.

#11. I do not mind whether the cat will live or not.

Hence, it is permissible for me to kill the cat, provided I have nothing better to do.

Both #10 and #11 commit the "naturalistic fallacy". Their validity shows, therefore, that it is not a fallacy.

Consider, finally, the most important word--that of *value*.

#12. A good car is a great value.

Under what conditions can #12 be asserted to true? Clearly, when the person to whom you talk is assumed to wish to be

