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**Thoughts on logical positivism, simon's decision theory and the aristotelian teleology**

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# "THOUGHTS ON LOGICAL POSITIVISM, SIMON'S DECISION THEORY AND THE ARISTOTELIAN TELEOLOGY"

"Every rational activity aims at some end or good. One end like one activity may be subordinate to another".

Aristotle, Nichomachean Ethics
1094 a 1

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# Introduction

Any brief presentation of a body of theory is likely to suffer from the distortion dictated by condensation. This problem is particularly severe when the theory, or theories, has been a focus for controversy.

The topic with which I shall deal is vast and fundamental. And it can be stretched so far that it can cover every aspect of Organization Theory, Economic Theory and Human Behavior. Being conscious of this vastness, my attention and effort will focus on a particular aspect of the whole problem. Of necessity, this presentation will be incomplete and inadequate. What I have in mind to accomplish, though, is just to proceed to a way of reasoning through which some esoteric logical interrelationships and / or incommensurabilitites would be revealed among three areas of human knowledge.

The cause which brought about in me the scientific interest in writing on the present topic has been Simon's conceptualization of Decision – making theory as that theory has been elaborated and presented in his classic study "Administrative Behavior". In that text, the three areas of knowledge I shall be concerned here, are closely interrelated to each other in a way which seems to have been very compatible and which has led to a rather high degree of scientific and logical consistency and coherence. That is, they seem to have been very well structured. Furthermore, and this point is more important, Simon's theory reflects not only his own stance in terms of how any administrative decision must be approached and analyzed, but he goes much further, claiming that it can be used as a "Weltanschauung" in regard to Decision Theory, as a whole for his approach, he argues, is based upon a solid scientific basis.

What I believe and argue in this brief study is, first, that Logical Positivism and the Aristotelian teleology are incompatible not only in abstracto but also in concreto. By in abstracto it is meant to consider them both as explanatory epistemological tools by comparing each other; and by in concreto it is meant to apply them both upon the same empirical objective, in this case on economic organizational entities. Consequently a decision theory attempting to combine these two epistemological approaches and to rely upon them fails to meet its ultimate goal. Second, this study argues that what Simon believes in terms of a strict separation (distinction) between ethical and factual aspects of any administrative and economic decision is almost impossible to happen. Finally, it will be argued that, the efficiency criterion is not in essence related exclusively to the factual dimension of administrative and economic decisions as Simon asserts, but instead it is related to the decision considered as a united whole.

## I. Logical Positivism: Historical dimensions and Doctrinal assumptions

Moritz Schlick (1881 – 1936), philosopher and scientist at the University of Vienna, has been credited with forming Logical Positivism as a movement in Philosophy and Logic, acting especially during the period between the two World Wars. In 1924 Schlick brought together a group of philosophers who within a few years became known as the Vienna Circle. In addition to Logical Positivism, other schools were applied to the views of the Vienna Circle, such as Scientific Empiricism, Neopositivism and Logical Empiricism. Leading figures in this Circle were Shclick, Frederick Waismann, Otto Neurath, Rudolf Carnap and Karl Menger. In Germany, logical positivists included Hans Reichenbach, Frederick Kraus, K. Grelling and A. Herzberg. In England, the most representative figure of this school was Alfred Jules

Ayer. The majority were scientists and mathematicians, uninterested in metaphysical problems as such.

At this juncture, it seems pertinent to make a reference to a leading scientific personality Ludwig Wittgenstein (1889 – 1951) who flourished in the first quarter of the present century. His celebrated work "Tractatus Logic – Philosophicus" (1921) became one of the foundation treatises of Logical Positivism.

Wittgenstein's Tractatus set forth a number of ideas accepted and adopted by logical postivists, including his famous "verification principle", a key tenet of that philosophy. He stated this principle as follows: "The meaning of a proposition or statement or sentence is the method of its verification". More specifically, "to understand a proposition means to know what is the case if it is true". In other words, the meaning of a proposition coincides with its truth-conditions without which the proposition would be meaningless. Anyone who wishes to understand a proposition must first know the conditions under which it is true, that is, what information is required by way of evidence of its truth. For the advocates of the logical positivism, the meaning of a proposition cannot even be known unless it is possible to state the conditions under which the proposition can be verified. Therefore, propositions of logic and mathematics, for example, can be demonstrated, but they cannot be verified through use of the experiential data required by the verification principle. They may be said to be valid or invalid, but not true or false like empirical propositions. Since propositions pertaining to metaphysical realities are neither tautological nor empirical, it is impossible to demonstrate their validity or to verify their truth; such a metaphysical reality is the area of "values", par excellence.

Following this reasoning, Logical Positivism based its doctrinal cornerstone upon the sharp distinction on the one hand between the analytic and the synthetic and on the

other between the a priori and the empirical. In essence, these two pairs are one, in that the a priori corresponds to the analytic and the synthetic to the empirical. Thus, the logical positivists constructed and distinguished two kinds of propositions, or statements or sentences (terminologically all being equal). So the picture which the logical positivists formed, is that on the one hand, there are analytic propositions, and on the other, the synthetic or empirical ones. As far as the analytic propositions are concerned, the logical positivists argued that analytic assertions are empty and without content, that they do not describe anything, they do not state facts, they do not tell us anything about the observable world, and that they cannot be proved as true or false because they cannot be verified. Sometimes it has even been advocated that they are merely about language. On the other hand, the empirical or synthetic propositions can be proved as true or false, right or wrong, correct or incorrect because they can be verified by appealing to experience. This second category of sentences can be verified simply because the empirical statements, tell us about the observable world, they are not empty and meaningless as the analytic ones, and further because, they refer to ontological and natural phenomena.

Another concept, equally fundamental for the doctrine and directly related to the analysis above, is how Logical Positivism conceived of the nature of values and ethics. Parenthetically, it should be noted here that this concept has been entirely adopted by Simon as the cornerstone of his decision making theory.

It can readily be advocated that the most representative text about this topic has been that of Hans Reichenbach, "The Rise of Scientific Philosophy", (1951), and, therefore, the reference is made directly to this text here. Reichenbach attempted to define the real nature of ethics and values within the logical frame of reference of Logical Positivism. For him, as for all logical positivists, knowledge divides into synthetic and analytic statements; the synthetic statements inform us about matters of facts, the analytic ones are empty. Therefore, Reichenbach asks himself that if it is

so, what kind of knowledge should ethics be? For him, ethics and values are neither empirical nor analytic: they are rather something metaphysical in nature. He concluded by arguing that the modern analysis of knowledge makes a cognitive ethics impossible and that knowledge cannot provide the form of ethics because it cannot provide directives. Since knowledge cannot provide directives, these directives can be provided by ethical axioms, and consequently, for him, ethics and values are metaphysical directives in nature. Furthermore, these ethical and value directives, because they are not knowledge, cannot be classified as true or false and therefore cannot be verified as such according to Wittgenstein's "verification principle". Reichenbach seems to have classified ethics and values closer to analytic statements than to empirical ones, but he has not considered them as identical to them.

Although this brief presentation does not cover or embrace the whole doctrine of Logical Positivism, I believe that it is adequately informative at least as far as these two basic concepts are concerned.

## II. Simon's intellectual construction and the Aristotelian teleology

It is not an oversimplification to assert that Simon has followed and thoroughly adopted the logic presented above as his conceptual roof for his theory on decision making in any administrative and economic unit. This theory has been presented in his well-known book "Administrative Behavior".

In that study, Simon explicitly adopted the dogma of Logical Positivism as his frame of reference, upon which he based the distinction of facts and values as two clearly distinctive aspects of any administrative and economic decision. His

argument, briefly, ran as follows. To determine whether a proposition is correct, it must be compared directly with experience - with the facts - or it must lead by logical reasoning to other propositions that can be compared with experience. Nevertheless, factual propositions cannot be derived from ethical ones by any process of reasoning, nor can ethical propositions be compared directly with the facts. This is a point I shall return to later. Hence, there is no way in which the correctness of ethical propositions can be empirically or rationally tested. He argued, further, that the question of whether decisions can be correct or incorrect resolves itself into the question of whether ethical and value terms have a purely empirical meaning. Directly related to this, it has been his famous statement that: "it is a fundamental premise of this Study" (Administrative Behavior) "that ethical and value terms are not reducible to factual terms", asserting implicitly in terms of human behavior the separation of one's values from one's acts.

Furthermore, Simon attached and related this premise of Logical Positivism to the efficiency problem as a criterion of , evaluating the degree of rationality of administrative and economic decisions. He argued that the notion of efficiency is exclusively associated with the factual aspect of any decision.

So far, it has been presented half of Simon's theoretical basis of his study; that half relates to Logical Positivism. The other half is the notion of Aristotelian teleology as this notion has been established and elaborated by the philosopher in his logical "means-end" form. This second half, combined with the first one, finds also a direct application to empirical decision areas, according to Simon's intellectual construction.

The statement which expresses in the most adequate way the essence of the Aristotelian teleological construction and structure of the universe, as well as that of society, is that "Nature does nothing in vain." That is to say, everything in Cosmos

(according to ancient Greek Philosophy social life was considered as part of Nature, and governed partly by its laws) has been created to achieve and accomplish a purpose. The ultimate goal of any human being, according to Aristotle, was to achieve "Happiness", or "eudemonia". The content of this ultimate goal was not, the same for all human beings, however. Since "eudemonia" was considered as the ultimate goal, everything which stood beneath it was considered as a means towards the achievement of this goal. At the same time, this means was deemed a goal in terms of what stood beneath it, and so on. This connecting chain of "means-ends" has been, in a descriptive way, the teleological structure of Nature and Human Action, according to the philosopher.

Aristotle considered further the goal(s) of an individual, which he had chosen to seek, as his "good". In other words, he believed that the goals of an individual were at the same time his own good, as the most worthy things to pursue in his life. Nevertheless, because these "Goods" corresponded to an individual's own values' scale, ends-goods-values and goals shared the same meaning for the individual. Therefore, an individual selects consciously his "Good" in life, which (good) reflects his value(s) and he considers it as a goal to attain. Any goal, value or end beneath his ultimate goal is considered as a means for its achievement.

Consequently, within the teleological frame of logic, everything is deemed as a means and at the same time as a value or end. Only the ultimate "Good" is not considered as a means for something further; this is a "pure value", so to speak, and this is only and exclusively the "Nous". This analysis describes the general outline of human behavior, according to Aristotle. He believed that this chain of means-ends solidifies, at the extreme, the integration of human action. It is reminded here that every human act is a purpose full activity.

Furthermore, and this is significant for our study here, an individual had not

only to choose his "Good", by he had also to proceed to the "right" activities in order to achieve his good. In other words to choose the appropriate "means". Because human behavior, human "Praxis" and consequently human "values" were considered, not only by Aristotle but by all Greek philosophers since Socrates, as a "Practical Science", not belonging to metaphysical considerations but instead to the observable world, the adjective "right" means "correct"; that is what works best to achieve the best results. In philosophical terminology this is called "sofrossence" (prudence) and in economic rationality. Aristotle was very clear in terms of the significance of the "correct" activities connected to "correct" values a person had to follow in order to achieve his "happiness". He argued that if an individual is not habituated to follow the correct activities (the modern term for habituation in this case would be "training"), he would not be able to reach his "Excellence" and therefore his "Good". This idea has been quite clearly expressed in his "Ethics" (1193 b 8): "… for it is as a result of playing the harp that people become good and bad harpists. The same principle applies to builders and all other craftsmen. <u>Men will become good builders as a result of building well, and bad ones as a result of building badly.</u> Otherwise, there would be no need of anyone <u>to teach them:</u> they would all be born either good or bad". (emphasis added)

From this quotation are derived two important observations in regard to our concern: 1) that the "correct" or "incorrect", "right" or "wrong" is knowledgeable and therefore teachable and thus subject to testability and verification. A propos, Aristotle in this text is not referring to the builders and other craftsmen per se, but he uses them as an example and metaphor related to his moral teaching; 2) that every action or activity of ours presupposes a goal or a good or it is accompanied in an inseparable way by a value, which it is intended to achieve; that is, a particular good implies to and directs us to a particular activity or action.

## III.    A discussion

The assertion I am going to discuss in this section may be said to warrant as much credence as Hotspur offered to Glendower's claim, in Henry IV, that: "I can call spirits from the vasty deep" and Hotspur "But will they come when you do call for them?" Let's see, then, closer as a whole what has been presented above.

The coexistence of Logical Positivism with Aristotelian teleology under the same conceptual roof, in my opinion, is incompatible for various reasons; but primarily for the following. If the distinction between facts and values in terms of human behavior becomes legitimately acceptable, and if it, further, becomes acceptable that facts cannot derive from values, as Logical Positivism and Simon argue, then it is extremely problematic for me to comprehend what is the litemotif of Human Praxis. On the other hand, the Aristotelian teleology, in its means-end form, seems to be highly consistent in regard to value-praxis relationship. The cause for this assertion is that any human being proceeds to a particular act because he has a particular goal to attain. Consequently, next to any activity, there is always a value which is the cause of this activity. Therefore, since next to every fact (action) in life stands an "ethos", using the Logical Positivism terminology, the factual aspects of our behavior derive directly from ethical and value elements of our judgments. At this juncture, it should be noted that Logical Positivism initially was related to natural phenomena and their explanation and only later on its principles were applied to explanation regarding human behavior. Nevertheless, it must be mentioned once more that because natural phenomena and Nature itself are value-free expressions, perhaps in this area Logical Positivism is consistent with their explanation. On the other hand, social action is never value free. Therefore, this doctrine cannot be applied, to it because, among others, it does not dispose of an explanatory power. By the way, for Aristotle even Nature itself is not value free.

Within the teleological frame of logic, every action of human activity is considered as a means towards an end but at the same time as an end in terms of a previous means. Further, the means are viewed, examined and verified in a scientific way, according to verification principle, in terms of their correctness or incorrectness. But what are viewed, examined and verified are not merely the means but the values (ends) as well; those values which have been incorporated within those means previously used and applied to as values. Thus they are means and ends at the same time.

This reasoning leads to the concluding idea that the means cannot be tested and verified as separate entities from the values, assigned because these means are values in themselves, they express values. Therefore, I believe that Logical Positivism cannot coexist with the Aristotelian teleology, forming a homogenous logical frame of reference of human behavior; instead to our view here this coexistence leads to logical inconsistency. This inconsistency is more apparent when Simon argues that the means correspond to the factual aspect of a decision and the end to the ethical one. This conceptualization bears perhaps the elegance of an analogical way of thinking, but it leads to a deep logical incoherence. Within a teleological frame, value judgments are attached not only to the ends or "Goods", but to the means as well. Therefore, in essence, in a society as well as within an organization, what is encountered is a "web of means-values" directed towards an ultimate "Good", whatever this good may be. The difference, and perhaps the only one, between the elements of this pair lies in what Aristotle says in "Ethics" (1094 a 1): "… The Good has been rightly defined as that at which all things aim. Clearly, however, there is some difference between the ends at which they aim: some are activities and others results distinct from the activities. Where there are ends distinct from the actions, the results are by nature superior to activities".

At this juncture, another point I would like to touch on is that, within the teleological frame, any decision as an expression of man's behavior is examined and verified as a complete whole. The reason for this is that the "ethos" incorporated into it, according to the Aristotelian teaching, is subject to objective examination because, for him, there are cognitive ethics, a thesis, as we saw, not supported by Logical Positivism. Therefore, and this is the third point of my discussion about Simon's theory, when the efficiency criterion is used as a yardstick for evaluating a decision, this criterion, of necessity, must be connected to and associated with the decision as a whole and not exclusively with the facts, that is to say, the means. I argue so because, since means and ends are inseparable, by evaluating a decision, what takes place in essence, is a cognitive attempt in finding efficient values and not only efficient means as the economists have advocated. Simon, in many studies of his, asserts that this kind of efficiency relates the notion of efficiency to the notion of rationality and that the common denominator of any decision must be the notion of efficiency related to the means and not to the ends. Even though this point lies beyond our concern here, the only thing which can be said about it is that it is a debatable point, within the Aristotelian teleology.

# Conclusion

Although I do not believe that there is any definite conclusion in terms of subjects like these and therefore the title of this section does not correspond to the reality, what I would like to do here is something more vast, having at the same time an apologetic purpose.

The title itself of this endeavor indicates in an a priori way the vastness of the subjects in question and, therefore, it indicates the degree of the incompleteness of the present attempt.

Logical Positivism as a trend in Philosophy and Logic was initiated within the area of Mathematics and Natural Sciences. More especially it dealt with the very fundamental issue of whether or not language can, potentially, interpret and explain Nature and its phenomena. The distinction logical positivists made in terms of sentences, in analytic and empirical ones, leads and relates this philosophy of science to a very central issue of human knowledge and philosophy itself, that is, whether or not there is an <u>a priori synthetic knowledge</u>. Logical Positivism has denied this thesis. On the other hand, since the early times of Greek philosophy the same issue has also been the central object of philosophy and it has been investigated in various different ways. Later on, throughout human intellectual history, French, English and particularly German philosophers have been preoccupied insightfully with the same problem.

Nevertheless, the purpose, here, as it has been stated in the introduction, has not been to give an answer to this question; on the contrary, far from this. Simply, the goal has been to show, or rather to open up a discussion on the issue according to

which, these two philosophical conceptualizations of Human Behavior are incompatible. Also taken together, they lead to a logical incommensurability, to use Kuhn's epistemological term.

Socrates, Plato, Aristotle, Stoicists, Epicurian philosophers as well as some of the pre-socratic ones, considered human behavior as an object of practical science because they conceived of Human Praxis as cognitive, knowledgeable and teachable. Consequently, the fact that we proceed to an act, becomes an object of objective observation and analysis. The fact that in different groups, organizations and societies, the values and ethics are different does not change the logic of teleology. Within the Aristotelian system, "Ethics" itself is a work of practical science.

What that means is that the characteristic aim of studying ethics and values is not only the acquisition of knowledge about action or even knowledge about how the good man looks like, but acquisition of knowledge about action itself. According to Aristotle we read the "Ethics" in order to act as good men do (1095 a 5; 1103 b 25). That is to say, the value incorporated into an act determines the act, implies the act, accompanies it and because of all these it can become an object of teaching. This means, as has already been said, that the facts (our acts) are derived from our values and ethics. This is a notion of human act opposed to Logical Positivism and Simon's assumptions. Furthermore, since our acts derive from and correspond to respective values, the means-end chain cannot be considered as detachable and separable from each other. Consequently, the distinction of facts-values or factual-ethical elements of a decision cannot logically and legitimately be included in and examined under the light of means-end logic. Therefore, the notion of efficiency is conceivable, in this study, not only in terms of the means but in terms of the values, as well.

Reaching the end, I should say that what it is assumed here is neither that Simon and Logical Positivism are right or wrong, nor that the Aristotelian

teleology is right or wrong. What it is argued is that the two logics thus combined by Simon are incompatible.

The intellectual wandering among these epistemological trends reminds me of what a universally famous French physicist and mathematician, Henri Poincaré, had observed eighty years ago in terms of this kind of problems: "It is very probable that we shall never be able to learn and to find out which is the real nature of the phenomena in Cosmos, being only able to find out the relations among them." This statement expressed his epistemological stance, which later was labeled "conventionalism." I feel that Poincaré's "Conventionalism" is equally valid for natural as well as social sciences.

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