

Cogito, ergo sum: from an enthymeme to bioethics

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Abstract.

The work analyzes the Cartesian expression “cogito ergosum” from the points of view of the traditional and the modern logics. The expression is shown to be an enthymeme with the major premise omitted. Two ways of the major premise interpretation are made clear: 1) as a conventional assertion (a most commonly accepted view among philosophers); 2) as a proposition containing an equivalence. It is shown that the equivalence of “thinking and being” assumed by Descartes has once opened up the logical-anthropological opportunity to proclaim as “non-existing” what does not think. The last assertion provides the basis of “Ratiofundamentalism”. The work demonstrates that the Cartesian enthymeme analysis concerns directly our understanding of the ontological status of man and is inseparable from the questions of biomedical ethics.

Key words: Epistemology, Logic, Cogito, Descartes, Enthymeme, Ratiofundamentalism.

Cogito, ergo sum: del entimema a la bioética

El trabajo analiza la expresión cartesiana “cogito ergo sum” desde el punto de vista las lógicas tradicional y moderna. La expresión se muestra como un entimema con la premisa mayor omitida. Dos formas de interpretar la premisa mayor son claras: 1) como una afirmación convencional (la visión más aceptada entre los filósofos), 2) como una proposición que contiene una equivalencia. Se demuestra que la equivalencia de “pensar y ser” asumida por Descartes una vez abierta la oportunidad lógico-anropológica para proclamar como “no existente” lo no pensante. La última afirmación es la base del fundamentalismo racionalista. El trabajo demuestra que el análisis del entimema cartesiano se refiere directamente a nuestra comprensión de la condición ontológica del ser humano y es inseparable de la cuestión de la ética biomédica.

Palabras clave: epistemología, lógica, Cogito, Descartes, entimema, Raciofundamentalismo.

Introduction

Investigating rational foundations of the relationship between man and the world has since very old times been the cherished subject of philosophers, scholars and even theologians. The number of explanations suggested for such relationship could really be fitted into no less than voluminous encyclopaedias or special dictionaries.

So, in the present paper, we shall reduce the field of our investigation to the range of such views and convictions that are typical of a quite definite trend in the explanation of the said relationship. Let us call this trend “ratiofundamentalism”, taking for the semantic basis of the term “ratio” its standard translation as “reason, intellect, intelligence”. And “fundamentalism” will be understood here as “a strongly (and consciously) fixed attitude of mind based upon exaggerating some principles that are supposed *to be self-obvious* and excluding all attempts *to doubt their truth (validity)*”. If now we add the standard meaning of the Latin “ratio” to this definition of “fundamentalism” we’ll get a working definition of the newly introduced notion.

Thus ratiofundamentalism will be defined as “a strongly (and consciously) fixed attitude of mind based upon exaggerating principles of reason and intelligence that are supposed to be self-obvious and excluding all attempts to doubt their truth (validity)”. Here a question seems quite logical: What singles out ratiofundamentalism in the real body of philosophic thought? What’s its difference from the ordinary rationalism?

Indeed, rationalism as a school of thought has at least a two-and-a-half-thousand-year history. But throughout all those years rationalism did not remain the same. The antique rationalism differed quite seriously from the mediaeval one, which was also not the same as its new-time version. Among the new-time rationalists, Rene Descartes practically holds the exceptional place of its main founder and theorist. Of course, we can’t go without mentioning Gottfried Leibniz and Emmanuel Kant and many others along with Descartes, but it was this latter who gave us the most vivid and concise formula of its essence: *Cogito, ergo sum*. This short statement was to become the motto and banner of the entire Age of the Enlightenment.

It is only natural that such outstandingly expressive stand as Descartes’ could not escape criticism from the most different points of view. Some scholars¹ trace up to Descartes the beginning of the so-called “calculating rationality” defining at large the horizons of the 18th–19th-century science and scholarship. Others, like Albert Schweitzer, censure Descartes for his “existential pessimism”, that is, for his reducing the fullness of “life ethics” to mere thinking². Jose Ortega y Gasset criticizes the Cartesian Cogito in his “What is

1 See, e.g.: Heidegger M., The European Nihilism // Problem in Western Thinking, Moskva .Progress, 1988, p.285.

2 Schweitzer A. Culture and Ethics. Moskva, Progress, 1973. P.306.

Philosophy?” for the “substantialism” using, at the same time, the metaphorical tools and bases on “philosophy of life”³.

However, M. Heidegger’s, A. Schweitzer’s and Ortega’s criticisms come to nothing more than stating the fact of “wrongness” of the famous Descartes’ “*cogito, ergo sum*”, giving it no analytical, i.e. duly and properly rational, study.

Along with the critical view upon the Cartesian statement from the existentialist standpoint, there is a much more subtle analysis of it from the logical-philosophical point of view, with the best examples in R. Carnap’s⁴ and J. Hintikka’s⁵ works. It should be mentioned at the very beginning that Carnap analyzes the famous statement from the radical standpoint of logical positivism, whereas Hintikka’s approach is more balanced and relies on his awareness of non-classical logics that had been simply out of Carnap’s scope in the year of 1932. As the results we have reached analyzing the Cartesian *Cogito, ergo sum* cannot be found in either existentialist or logical writings, we consider it right to start this article with demonstrating our approach.

The famous Descartes’ enthymeme

So, let us go back to Descartes’ authentic statement from the fourth part of his “Dissertation on the Method”:

...But immediately upon this I observed that, whilst I thus wished to think that all was false, it was absolutely necessary that I, who thus thought, should be somewhat; and as I observed that this truth – *I think, therefore I am* (COGITO, ERGO SUM) – was so certain and of such evidence that no ground of doubt, however extravagant, could be alleged by the sceptics capable of shaking it, I concluded that I might, without scruple, accept it as the first principle of the philosophy of which I was in search.⁶

From all this Descartes’ paragraph we are interested most of all in the statement used by Descartes as the fundamental tenet for his new rationalism:

I think, therefore I am.

From the very fact Descartes used the word *ergo*, “*therefore*”, we can be sure here we see a reasoning. But what kind of reasoning?

As this *ergo* is preceded by an attributive proposition and followed by another one, we cannot doubt the fact: here we have a reduced deduction, with one of the premises missing. Such deduction is called an “enthymeme”.

3 See: Jose Ortega y Gasset “What is Philosophy”, Ch. IX.

4 Carnap R., The Elimination of Metaphysics Through Logical Analysis of Language// Analytical Philosophy: Becoming and Development. – Moscow. Progress-Tradition, 1998. P.69-89.

5 See: J. Hintikka:[1962], Cogito, ergo sum: Inference or performance?//Philosophical Review, 72, p.3-32; J. Hintikka:[1988], The Cartesian Cogito, epistemic Logic and Neuroscience: some surprising Interrelations//The Logic of Epistemology and The Epistemology of Logic. Selected Essays; Kluwer Academic Publishers, Dordrecht-Boston-London, Volume 200, Managing Editor: Jaakko Hintikka, pp.113-136.

6 Descartes R. Works in two volumes, -Moskva, Mysl, 1989, Vol.1, p. 268-269.

So, Descartes' statement *Cogito ergo sum* is an enthymeme.⁷ We know well from the history of European philosophy that its content has had great influence – (this cannot be doubted) – upon the entire European culture, which enables us to consider *it the most famous Descartes' enthymeme*.

Let us now produce a simple logical analysis of this enthymeme, as was possible within the frames of traditional logic, based upon the subject-predicate structure of propositions, not yet acquainted with quantifier description. Then we shall demonstrate that this Descartes' statement may be quite adequately described by the quantor of "existence" as well, without any change of meaning.

To begin with, we shall fashion it into a logic form. For this we shall have to single out the conclusion. This is the assertion after the term *ergo* ("therefore"): "I am". There are the subject (S) and the predicate (P) implied: "I(S) am(P)". Now we can fashion it into the shape of formal deduction:

------(therefore)
I(S) - am(P)

As is known, the subject of a conclusion is always the minor term of a deduction, and the predicate – its major term. Basing on this, we can establish that the subject of the conclusion, that is "I(S)", must be the subject(S) of the minor premise, and the predicate of the conclusion, that is "to be (P)", must be the predicate of the major premise (P). Thus, we see the incomplete deduction, plainly said by Descartes:

I(S) think (M)

I(S) am (P)

We still have to discover the implicitly present major premise. For this we have the knowledge of the medium term (M). It is the expression "to be thinking"(M). Now, having discovered the meanings of the minor, the medium and the major terms, let us look at the full form of the reasoning:

To think (M)⁺ – means to be (P)⁻
I(S)⁺ - think (M)⁻
----- (therefore)
I(S)⁺ - am(P)⁻

7 The fact that the Cartesian dictum is an enthymeme is pointed out by Hintikka in one of his very early works [Hintikka:1962, p.20].

We have a deduction according to the first figure. A correct one. Neither general rules, nor the rules of the first figure are transgressed. Thus, from my point of view, Descartes makes a rather sensible conclusion – “I exist” (“I am”).⁸

However, in spite of this nearly trivial clarity, there might arise a rather unexpected question: How should we understand the logical relationship between such terms of the deduction as “to think” and “to be” (“to exist”)? Strange as it might seem, there are at least two different answers possible here.

1) The first answer says that Descartes views the major premise of the deduction as follows:

To think (M)⁺ – means to be (P)⁻

In this case, the subject of the major premise “to think(M)⁺” is taken in its full volume, that is, distributed, and the predicate “to be(P)⁻” is taken not in its full volume and hence is not distributed. That is why it will not be distributed in the conclusion: “I(S)⁺ am(P)⁻”, either.

Thus the volumes of the terms will relate as mutually including. Really, out of the whole set of those who exist we can single out the subset who “think (M)” and then all the elements of the set (M) are fully included into the set (P). In other words, the volume of the set (P) is greater than the volume of the set (M).

In the same way, out of the whole set of all thinking creatures (M) we can single out the one who is, for example, Descartes’ “I”.

It should be admitted that such understanding of the Descartes’ enthymeme is most commonly accepted⁹, and so, from our point of view, it can lead us astray from the true meaning imparted to it by its author. In order not to be led astray, we shall need another answer for the said question.

8 Therefore I venture to disagree with Hintikka’s interpretation: “...it cannot be a logical inference in the ordinary sense of the word” [Hintikka, 1962,p.15]. Hintikka considers it to be rather an instant of Descartes’ intuition. Further on, he becomes more exact saying that the relation between COGITO and SUM are not those of a premise and its conclusion but rather those «of a *process* to its *product*»[Hintikka, 1962,p.16]. Hintikka’s argumentation in general insists that the Cartesian statement is just an utterance, just an “act of speech”, rather than a logical inference. This is why no logical analysis seems relevant in its case, which simply implicitly removes all its accusations in the mood of Kant or Carnap. Hintikka comes to the conclusion: “...it refers to the “performance”(to the act of thinking) through which the sentence “I exist” may be said to verify itself”.[Hintikka, 1962,p.17]. Indeed, from the point of view of mathematical logic, Descartes’ conclusion is absolutely unfounded, but don’t we have the right to analyze him by the very means available to him at his time (the traditional logic)?

9 In particular, this interpretation of the major premise is shared by Hintikka: “Descartes denied that his argument is an enthymeme whose suppressed major premise is “Everybody who thinks, exists”.[Hintikka:1962, p.20].

The second answer.

Let us once more turn to Descartes himself:

«In the next place, I attentively examined what I was and as I observed that I could suppose that I had no body, and that there was no world nor any place in which I MIGHT BE, BUT THAT I COULD NOT THEREFORE SUPPOSE THAT I WAS NOT; and that, on the contrary, from the very circumstance that I thought to doubt of the truth of other things, it most clearly and certainly followed that I was....»¹⁰

In fact, Descartes says here: “I exist, I doubt (think) and still – I can have no body!”

What conclusions can we retrieve from this phrase? They are as follows:

- A) The “thinking human I” is not identical to anything in the physical-bodily world existing in space and time.
- B) Descartes’ sentence: “from the very circumstance that I thought to doubt of the truth of other things, it most clearly and certainly followed that I was” can be expressed in a more laconic way: “I can think *if and only if* I am”¹¹.

But if this is the case, we have quite a different picture with Descartes’ enthymeme, that turns into *a proposition of identity* (equivalency), where the meaning of “to be a thinking I” is identical to the meaning of “to be an existing I”, and the meaning of “to be an existing I” is identical to that of “to be a thinking I”. It is exactly such “thinking and existing I” that Descartes calls “substance”: “...I thence concluded that I was a substance whose whole essence or nature consists only in thinking...”¹²

But if we accept the outlook that renders “thinking” identical to “being”, then we shall face a whole number of non-trivial conclusions of philosophic kind, able to be derived by logical way only. Such a changeover, however, can meet with the quite understandable perplexity of a reader: what conclusions could be ever reasonably discussed when the Cartesian statement itself was analyzed by the means of mere traditional logic, whose limitedness and insufficiency has long become notorious. One of the first researchers to demonstrate this limitedness most graphically – and in respect of the famous *Cogito ergo sum* in particular – was Rudolf Carnap.

¹⁰ Descartes R. Works in two volumes, -Moskva, Mysl, 1989, Vol.1, p.269.

¹¹ It should be noted that there is no such step in the analysis of the Cartesian statement in the 1962 Hintikka’s work.

¹² Descartes R. Works in two volumes, -Moskva, Mysl, 1989, Vol.1, p.269.

R. Carnap's Argumentation

R. Carnap, partly following E. Kant, points out two types of erroneous usage by metaphysicians of pseudo-statements containing the word "to be". The first fault has to do with the polysemantical base of the word "to be" that can be used both as a link-verb ("man *is* a social being") and as a verb designating *existence* ("the man *is*")¹³. Metaphysicians are very likely to ignore this difference. As is evident from the below, Descartes sees the difference quite well, that is, he does not mix the link-verb "to be" with the same verb meaning "to exist".

In Carnap's opinion, «The second fault lies in the form of the verb in its second meaning, the meaning of *existence*. The verbal form feigns a predicate where there is no... But it was not until the advent of modern logic that full consistency on this point was reached: the syntactical form in which modern logic introduces the sign for existence is such that it cannot, like a predicate, be applied to signs for objects, but only to predicates... Most metaphysicians since antiquity have allowed themselves to be seduced into pseudo-statements by the verbal, and therewith the predicative form of the word "to be", e.g. "I am", "God is". We meet an illustration of this error in Descartes' "cogito, ergo sum."»¹⁴

Carnap goes on to make his arguments against the Cartesian statement more specific, pointing out two essential errors. The first is to be found in the concluding clause "I am"¹⁵. What's wrong with it? The thing is that the verb "to be" is used here in its meaning of "existence". If it is so, such usage contradicts, in Carnap's opinion, the rule of logic: existence can be stated only in respect of a predicate, but not in respect of a nominal (a subject, a proper name).

According to this rule, a statement of existence should never have the form "*a* exists", as in the case with Anselm asserting that "God exists" or with Descartes asserting that "I exist", but the form "there exists something of such and such a kind"¹⁶. The true meaning of this rule is: no premises allow to assert *the existence of the subject of the original statement*. Thus, it does not follow from the statement "I am a European" that "I exist", but it only follows from it that "there exists a European"¹⁷.

Saying this, Carnap means that there is, in the formalized language, a certain "quantor of existence" corresponding to the verb "to exist" and designated by the symbol (\exists). When Carnap says "there exists something" he means the syntactical expression $\exists (x)$.

13 Carnap R., p.73.

14 Carnap, p.73-74.

15 Ibidem, p.74.

16 Ibidem, p.74

17 Hintikka [Hintikka, 1962, p.8] pays attention to the fact that a logic can well be constructed with no existential premises, noting, however, that Descartes was firm in adhering to existential premises [Hintikka, 1962, p.8].

Of course, it is necessary in the formal logic that quantors should relate to a nonempty set of individuals (a universum of reasoning), that is a universum containing at least one set member. In fact, Carnap wants to say: “there exists x such that x thinks (T)” – $\exists x T(x)$. To establish the “nonemptiness” of the entire universum of statements we need to introduce a criterion of nonemptiness. The requirement of “consistency” can serve for descriptive statements such an “ontological” criterion: everything that can be described consistently – exists.

Now, after the Cartesian statement has gone through Carnap’s criticism, let us reconstruct all those Descartes’ statements – both explicit and implicit – that we found analyzing the Cartesian enthymeme by means of traditional logic, this time viewing it in the perspective of our modern logic.

Descartes’ Enthymeme expressed in the modern logic

Descartes’ statement “I think, therefore, I am” can be expressed in the generalized form:

$$T(I\text{ am}) \supset \exists x (x = I\text{ am})^{18}$$

Such formulation meets Carnap’s requirements: That it is inadmissible to simulate existence where there is no. We introduce the variable x that runs along the universum of “those thinking”, designated by the predicate T . Therefore the expression $\exists x T(x)$ is read as follows: “there is such an x that x thinks”. Then a conclusion is drawn from here: “if there is such an x that x thinks, then there is such an x that x is ($x = I$)”.

That it is inadmissible to infer the statement “I am” from the statement “I think”. As we remember, according to Carnap, what follows from the statement “I think” is only that “there exists something that thinks”. The second part of the expression has, after the sign of implication “ \supset ”, the quantor of existence, pointing not at the quality of “existence” but just at the fact that the universum along which the variable x is running – is nonempty. So, this requirement is also met.

However, an analysis of the Cartesian proposition made in the language of traditional logic has shown that this proposition is an *enthymeme*, that is, it contains an implicit premise related to the minor particular premise and the particular inference as a general statement: “To think means to be”. Neither Carnap, nor Hintikka make this step analyzing the Cartesian proposition.

18 A similar analysis of the Cartesian statement was presented by J.Hintikka: 1962, Cogito, ergo, sum: Inference or performance? // Philosophical Review, 72, p.6. Hintikka puts it like this: $B(a) \supset (Ex)(x = a)$. [Hintikka, p.6]

Let us put it down in the symbolic language of the first-order logic of predicates. As its first part embraces the whole range of those thinking, let us introduce the quantor “any” (“) for the variable x and the predicate “Thinking” (T). Thus the following expression arises:

“ $x T(x)$ ”

The second part of the proposition, after the word “therefore” can be represented as follows. The quantor “any” will be introduced once more, for the variable x running along the universum “real” (R). As a result, uniting the left and the right parts of the proposition, we shall get the new expression:

“ $x (T(x) \supset R(x))$ ”

As we have ascertained that Descartes saw this proposition as an equivalence of the left and the right parts of the expression, let us insert the sign of equivalence « \equiv ». The result will be:

(I) « $x (T(x) \equiv R(x))$ »

that can be read like this: “Any x thinks, if and only if, this x is real”. In accordance with the rule of reduction – “from the general statement containing the quantor (“) there follows a particular statement containing the quantor of existence (\exists)” – we make a conclusion and get the very proposition by Descartes that has originally been the subject of our discussion: “I think, therefore, I am”:

(II) $T(I am) \equiv \exists x (R(x) \& (x = I am))$

Now we can write the Cartesian proposition down in the generalized form, as it is implied in his entire reasoning:

(III) « $x (T(x) \equiv R(x)) \div \frac{3}{4} T(x) \equiv \exists x (R(x) \& (x = I am))$ »

Where sign « $\div \frac{3}{4}$ » means «follow», predicate T means «to be Thinking» and predicate R means «to be Real». It should be mentioned that the expression (I) plays the role of a general law for the expression (II).

Special attention, of course, should be paid to our understanding of “existence” as such. Leaving aside the question of this predicate appropriateness, let us try to understand what Descartes himself meant by it. Did he mean merely “existence in the spatial-temporal corporeal world”? As is known, Descartes was a dualist, and so the set of elements *res cogitans* should not intersect for him with the set of elements *res extensa*. Therefore, speaking of “existence” Descartes could not have meant the existence of a spatial body.

We see it is not at all so simple a question. To approximate as we can, not even to its salvation but just to the comprehension of its utter complexity, let us use the approach suggested by A.M. Anisov¹⁹ who followed Descartes in this matter. Anisov suggests that we should assume the existence of things of two different kinds. The first group of things are *mental* objects, run along by individual variables x ; y ; z ; x_1 The second group of

19 Anisov A.M.. The Notion of Reality and Logic // Investigations in Logic. – Moscow, Institute of Philosophy of Russian Academy of Science, 2005. P. 24-25. In Russian.

things are *real* objects, run along by individual variables $X; Y, Z, X_1, \dots$. According to this assumption, we can write the Cartesian proposition down in the form of:

I think (I) * $\exists x (x = I)$

But as the variable is taken according to mental objects (x), the existence of the object (the second part $\exists x (x = I)$) is also mental. In the meanwhile, it is clear that when Descartes said “I am” he meant “real” existence (though in a form known to him alone) that may be written down in the form: I think (I) * $\exists x (x = I)$.

As we have already mentioned, Descartes disapproved of identification of *mental ego* with spatial bodies. Then, what kind of existence did he mean, if mixing (uniting) the two kind of realities together was inadmissible for him?

To clarify this question, we should also assume that Descartes did not identify subjective mentality with objective mentality. That is, what for Kant and Carnap was an obvious fact – *mental* reality being placed entirely within the human mental experience – was absolutely different for Descartes: mental reality was for him something common for man and God. Was God not *putting* ideas *into* human mind? He was, for Descartes. Naturally, logical positivism forbids such “objective mentality” as a sad vestige of metaphysics. But the fact is that Descartes, deprived of this reality, seems to mix up, “in the hands” of his logical interpreters, *analytical* and *actual* existence.

So, what’s the result? We have to admit there were four realities for Descartes: two mental ones and two actual ones. *Mental* reality: A_1 – inside the I (the thinking I); A_2 – outside the I (the thinking God). *Actual* reality: B_1 – inside the I (the spatial body “in parallel to which” the I is thinking); B_2 – outside the I (other bodies in the space around the body “in parallel to which” the I is thinking)²⁰.

What do sceptics do? They eliminate the reality A_2 , uniting the realities B_1 and B_2 into one, let it be designated as $B_1 \otimes B_2$ (though Kant, on the contrary, reduces B_2 to B_1). The symbol « \otimes » is used here for “uniting”. Having accomplished such elimination, they find themselves facing the necessity to “jump out” of the reality A_1 into the reality $B_1 \otimes B_2$.

There was no difficulty here for Descartes, for “the I” for him was a substance whose entire essence consisted in thinking. Neither God had any limitations for being connected with the inner mental reality of man – A_1 .

Of course, Descartes could have meant that his “thinking” and his “existence” were equivalent and identical in the reality of A_1 and A_2 .²¹

So, let us remember once more the prohibition proclaimed by Descartes: *one mustn’t identify the spatial body with the thinking substance!* The substance can think without

20 It seems just to note that such approach is not perfectly novel in the Cartesian COGITO analysis. The fundamental significance of such differentiation was stressed, e.g., by Hintikka [Hintikka, 1988, p.128], making clear distinctions between the “perceptual space” and the “physical space”.

21 In a sense, the same is pointed out by Hintikka [Hintikka, 1962, p.10], when he says that “...his result may be expressed by saying that it was impossible for him to deny his existence”.

the body, and the body can be left without the thinking substance. What shall we need it for? Exactly for clearing up the non-trivial conclusions that may be drawn from the famous Cartesian enthymeme.

Connections with bioethics.

Here we shall talk of the two new fields of ethics, originating from the twentieth century, – the environmental and the biomedicine ethics.

When discussing questions belonging to the first ethic field, we can very often hear that no moral (ethic) relationships are possible between man (I) and his environment (the physical nature), because this latter is not a thinking (and wider – “animate”) substance, hence, nature cannot be the subject of any moral (ethic) relationships or estimations.

In the same way, in the second field, it is very often proclaimed that no moral (ethic) relationships between human beings (the mother) and a foetus can take place, for a foetus is not a thinking substance, and so cannot be a subject of moral (ethic) relationships, not yet existing as a human being.

In this connection Fred Frohock's work²² seems of interest, containing a chapter “Human Identity”, specially devoted to the question: Who exactly can be called a human being, a who – cannot! The answer requires a valid definition. Making his position clear, Frohock refers to an article by Joseph Fletcher²³, who gives several positive “indicators of humanhood” and several negative. The positive ones include: certain minimum intellect, self-consciousness, self-control, the sense of time, the sense of the future, the sense of the past, the ability to communicate and some other. The negative are – the absence of parental or sexual feelings, non-observance of human rights, etc.

But Fletcher's main idea, in Frohock's opinion, is that «...to be human is to be thinking, reflective creature»²⁴. And Frohock cites something of really exceptional significance for our work:

«The life of the mind has been central to western understanding of humanness in centuries of law and morality...A man who loses his arms, his legs, any part of his body, is not in law considered less of a person as a consequence of the loss. But neurological deficits may render him legally impaired, his judgments transferable to a guardian who decide for him»

Then Frohock asks: Can using rational thinking be considered an indicator of “humanness”? Really:

«We can be more or less thoughtful. Are we more or less human as a result?»²⁵

22 Frohock Fred M., *Special Care Medical Decisions at the Deginning of Life.- The University of Chicago Press, Chicago, London, - 1986.*

23 Fletcher Joseph, *Indicators of Humanhood: Hastings Center report 2, (November 1972): 1-4.*

24 Frohock Fred M., P. 96.

25 Frohock Fred M., P. 97.

Assuming that we raise the index of “humanness” to the mentioned Descartes’ enthymeme, we leave those who do not pass the neurologic threshold outside the community of “humans”, but among such “nonentities” there would be quite a number of sick people.

If, on the contrary, we let the threshold of “humanness” slip down, then both the foetus in a mother’s womb and some animals (like anthropoid apes, dogs etc) are found in the set of humans. Finally, Frohock comes to the conclusion: «Perhaps the method of defining is wrong. There may be no unique test of humanness»²⁶.

Of course, Frohock does not analyse the Descartes postulate, but he definitely feels and rationally demonstrates the limitedness of the approach that we have agreed to call ratiofundamentalism. What is the reason for its clearly felt limitedness?

As we see it, Descartes’ philosophic doctrine has proved a good theoretic foundation for some absolutely unexpected conclusions about the ontological “status” of man²⁷. Really, what does Descartes states? “if I think, I am”. Assuming that we say categorically: “I think” – logical necessity leads us, according to the rules of positive conditional-categorical deduction Modus Ponens, to the conclusion – “I am”: $P \circ Q, P/Q$.

Now, if a foetus (the environment, a person in the state of coma) shows no explicit signs of a thinking substance, what’s then?

Not without reason we can presume that Descartes allowed that: $P \circ Q, \Rightarrow P/\Rightarrow Q$

This can easily meet with objection: this is *an incorrect form* of negative conditional-categorical syllogism. That is, the conclusion from it is incorrect! This cannot be argued. Descartes’ reputation seems to be saved? Well, let’s take our time.

Unexpected logical conclusions from Descartes’ enthymeme

Indeed, we remember that

p	q	p	®	q
t	t	t	t	t
t	f	t	f	f
f	t	f	t	t
f	f	f	f	f

(Table 1)

According to the tabular method of stating the truth of a conditional conclusion, it is true in all cases except when the antecedent is true and the consequent is false. This means that the case when $P \circ Q, P / \Rightarrow Q$ is not possible!

Modus Ponens is, of course, based upon the first line, when both the antecedent and the consequent are true. That is why we cannot say that $\Rightarrow P$ in the case $P \circ Q, \Rightarrow P / ?$.

²⁶ Frohock Fred M., P.113.

²⁷ See: Pavlenko Andrey, Universalism and cosmic harmony. Principle of genetic similarity (PGS)// Skepsis, 2004, XV/I, P.387- 401.

But, when discussing the “answer two” version, we agreed to think that Descartes gives us a proposition of identity (equivalence). Then, if we analyse this case in the light of what have just been said, the situation will be radically different:

p	q	p	«	q
t	t	t	t	t
t	f	t	f	f
f	t	f	f	t
f	f	f	t	f

(Table 2)

We see that, in the case of equivalence, the conditional conclusion is false in all cases when the antecedent and the consequent have different meanings.

And here starts the most fascinating thing:

Step 1. Descartes admits the identity of thinking and being.

Step 2. This identity can be strictly logically formulated: “I think, if and only if, I am”.

Step 3. As P is equivalent to Q, we can assert: “I do not think, if and only if, I am not; I do not think, therefore, I am not”

$\neg P \ll \neg Q, \neg P / \neg Q$

And indeed, if in the case of simple implication we say that “if it rains, the roofs are wet; it is raining – the roofs are wet”. But, assuming the statement “it is not raining”, are we able to make a legitimate conclusion about the roofs? No, we are not, for in this case the fact of their dampness (dryness) will depend merely on the actual state of raining and nothing else. Is there any logical necessity to make the conclusion that “the roofs are not wet” from the statement that “it is not raining”? No, there isn’t.

However, if we take an example with a “square”, the picture will be different: “if a given figure is a square, it is an equilateral quadrangle. The given figure is a square, therefore, it is an equilateral quadrangle”. Let us try changing the quality of the conditional proposition “if a given figure is not a square, it is not an equilateral quadrangle”!

So, it happens that the incorrect Modus $P \rightarrow Q, \neg P / ?$ is really **incorrect** only for simple conditional propositions, whereas for the equivalent propositions it happens to be **correct** $P \ll Q, \neg P / \neg Q$!

How does this logic conclusion help us to grasp the implicit meaning hidden in the most famous Descartes’ enthymeme?

Unexpected anthropological conclusions from Descartes’ enthymeme

First of all, this logic conclusion helps us to understand the fact that, reducing the entire wealth of the human inner life to a thinking substance, Descartes, whether he wished so or not, triggered the mechanism of dehumanization of man, having deprived the plenitude of human existence of its very significant part (as the *human* existence exactly): in the prenatal period, in the unconscious states of sleep or coma, etc!

Descartes' actual enthymeme claims:

"I think *if and only if* I am".

The conclusion, made by some most ardent Descartes' followers, simply suggested itself:

"I do not think *if and only if* I am not".

The meaning of the last statement is this: *existence without thinking is, for a thinking substance, not existence at all!* A human foetus in prenatal period does not think, therefore it does not exist, as a thinking substance. A man in old age, in an unconscious state or in coma – does not think, therefore, he does not exist at all, and so a fatal dose of drug "putting him away" – is not in the least a tool of murder that can (or should) be judged from the moral point of view. Euthanasia ceases to be a moral problem: *for how can you deprive of being what does not exist at all!*

From my point of view, this is an absolutely inhuman conclusion, wherefore, however inconceivable that may sound, I feel obliged to acknowledge the irrefutable philosophic fact: though Descartes himself – (we must admit it for the sake of scientific rigour) – never came out in vindication of euthanasia or artificial abortion, *he is sure to have opened wide the logical passage to the sphere of such vindication*, admitting equivalence between "thinking" and "existing" substances.

And this theoretical *démarche* of his was the very thing that laid the foundation of the New-European ratiofundamentalist tradition.

Reaction to ratiofundamentalism

Three general trends are possible, as we see it, in stepping away from the "pure" ratiofundamentalism.

The first trend is represented in philosophy by nihilism, postmodernism and the like. In most cases their demands can be generally expressed like this: "The supremacy of reason has come to an end!", the "principles" of reason should be cast away as a variety of human mythological patterns, narrations etc. Logically, this tendency should result in nothing but: *intellectual and anthropological involution*²⁸. Under the exterior of denying all universal "foundations" and "principles", adherents of this philosophic trend are firmly convinced that human reason (as all reasonable things in general) is subordinate to a certain inexpressible

28 Just compare: adherents of biological *evolution* believe man to have come from subhuman primates ("apes"), whereas adherents of biological *involution*, vice versa, believe nonhuman primates ("apes") to be degenerated humans.

“Nothing”, called by some of them “the chaos”, by others “the energy without any essence” etc.

The second trend is a “Renewed rationalism”. Its adherent’s main credo may be described as: “Of course, the human reason might be restricted in some respect, but its supremacy cannot be doubted”. They view the principles of reason as kind of “fundamental scale” to measure all human, natural and technical worlds of the past, the present and the future. In our opinion, such domination of reason must logically lead to a quite predictable end: the intellectual and anthropological finalism²⁹. For those who adhere to this trend, the “equivalence between thinking and being” is a doubtless fact.

The third trend is really an “Overcoming of ratiofundamentalism”. Its representatives are the most scanty group in the modern philosophy. They set for themselves the task of liberation the reason from the duties and functions alien to it, as, for example, to be “the foundation of the world” or “the fundamental scale” etc. According to their views, the principles of reason, though very important for explaining the world, are not sufficient to be the universal “scale” to measure its wholeness. On the other hand, they consider it inadmissible to place the human reason below some inexpressible “nothing”. A coherent result of this trend’s development must be the literal *reanimation of harmony between the reason and the world*, where the content of being is immeasurably richer than the content of thinking.

There is a point in assuming that the adherents of the “renewed rationalism” can quite rightfully put forward an argument for Descartes’ justification: “Yes, it is so and we really come to rather unexpected conclusions if we agree to understand Descartes’ enthymeme as containing a proposition of equivalence as the major premise. But is really Descartes alone to blame? Does not his major premise say: ‘To be thinking means to be existing’ and vice versa, that is, proclaims identity between thinking and being? - but this is not at all a new idea! It was not he who discovered it first, neither was he the first to found a school of thought upon it. Does not Parmenides state the same in his poem *On Nature?*”

Right, in the fragments of the mentioned Parmenides’ poem we find the following words:

V.1. *Thought and being are one and the same thing.*

It would be fair to admit that this short phrase had once laid the foundation of the entire European civilization that was still to come.

An alternative to ratiofundamentalism

However, we should make it clear at once, that ancient thinkers, as contrasted to Descartes, never reduced the multifarious wealth of human psychic life to mere thinking. Psychic life is on the whole much broader than thinking. On the other hand, the entire

29 A possible scenario here inevitably leads to the appearance of the “anantropos”. We dwell on such a scenario in more detail in another work: Pavlenko A.N. Ecological Crisis as a Pseudoproblem // Questions of Philosophy - Moscow 2002, №7 (In Russian).

cosmos, being for them animated, participated, to some extent, in thinking – which Plato states in “Timaeus” quite unambiguously. The Demiurge, as follows from Plato (Tim.30b), adheres to the following considerations when creating the Cosmos:

«Now the deeds of the best could never be or have been other than the fairest; and the creator, reflecting on the things which are by nature visible, found that no unintelligent creature taken as a whole was fairer than the intelligent taken as a whole; and **that intelligence could not be present in anything which was devoid of soul**. For which reason, when he was framing the universe, he put intelligence in soul, and soul in body, that he might be the creator of a work which was by nature fairest and best». «Timaeus» (Tim.30 b):

Let us repeat once more Plato’s assertion bearing a direct relation to the discussed Descartes’ enthymeme:

«that intelligence could not be present in anything which was devoid of soul»

What conclusions can we draw from this? Simply these:

Reason does not exist apart from the soul.

2) It follows from point 1 that any reduction of the entire psychic life of man to his thinking substance (reason) is unlawful.

3) The statement “to think means to exist” if not factually true, for it follows from point 2 that quite another statement is true: “to *think with one’s soul involved* means to exist”.

If we agree with these conclusions, then we have to admit that Descartes’ syllogism accepts a different form:

To *think-with-one’s-soul-involved* means to be

I think-with-my-soul-involved

I am

Or in the form of an enthymeme: “I think-with-my-soul-involved, therefore, I am”

Here we also have an equivalence of the two notions “to think-with-one’s-soul-involved” and “to be existing”. But in this case there cannot be even imagined a possibility to deny the human status of a “foetus”, for $P \llbracket Q, \text{ù } P / \text{ù } Q$.

What is inanimate-and-thinking has no being. This is true. Really, any form of non-being – the “centaurs”, the “ghosts” – are such inanimate-thinking things. But everything that has a soul, all animate things – by no means can belong to the realm of “the non-existing” (non-being). And here we see a true alternative to ratiofundamentalism of all kinds.

Conclusion

So, what results have we got from this analysis?

1. The specific interpretation Descartes gave to the well-known postulate of “the identity of thinking and being” turned out to have provided theoretical foundation, that is, the prerequisite creating the very possibility of the “ratiofundamentalist” phenomenon.

2. This work demonstrates that Descartes’ statement “*cogito, ergo sum*” is an enthymeme, where the “omitted premise” is his admission of the “identity of thinking and being” that can be represented in the form of equivalence: “to think « to be (to exist)”.

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