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Anna Brożek

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Jacek Jadacki

Troubles with the Truth

We have to carefully separate the scientific practise of philosophy
from everything else that does not belong to it
but rather poses a threat to
its essential aim of reaching the truth
about the reality and our cognition of reality
Antoni B. Stępień

1.

Until recently, I have inclined to the view that the formula:

(α) $\Lambda x \Lambda y$ [x states that $y \rightarrow$ (x is true ≡ it holds that y)],

where „x" and „y" range over a class of sentences and a class of states of affairs, respectively, is a satisfactory definition of "truth". An important advantage of this formula is that the Liar Paradox cannot be reconstructed from it.[39] However, I have changed my opinion on this.

2.

The convention (T), formulated by Alfred Tarski, is generally accepted as an adequacy condition of a definition of "truth". [40] Recall that according to the convention (T):

(T) The sentence "Snow is white" is true ≡ snow is white.

Let us replace x and y in the formula (α) by "the sentence "Snow is white"" and by "snow is white", respectively. Then we should agree that:

(β) It holds that snow is white ≡ snow is white.

After such a substitution, the convention (T) does not follow from (α). Therefore, the formula (α) is not an adequate definition of "truth", provided that the criterion is assumed to be diagnostic.

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[39] See my article [Jadacki 1996]. See also my book [Jadacki 1996: 183n]. In both papers instead of stating the states of affairs I have talked about referring to events — but in this paper it is not so important.

[40] According to Professor Antoni B. Stępień, this convention is accepted also by neotomists (see [Stępień 1999: 222]).

3.

Is the convention (T) a good adequacy condition for a definition of "truth"? I have started to doubt it.[41] To present my reasons as clearly as possible, I formulate the convention (T) as follows:

(T′) $\mathrm{V}x\ (x = \text{“Snow is white”} \wedge x \text{ is true}) \equiv \mathrm{V}z\ (z = \text{snow} \wedge z \text{ is white})$.

If such a reformulation is admissible — and I think it is — then it can be objected that the convention (T) is not a good adequacy condition for a definition of "truth". Note that according to the convention (T), a state of affairs that snow is white has to imply a state of affairs of a truth of a certain sentence (in this case: "Snow is white"). The latter, at least according to some intuitions, would imply the existence of that sentence. Therefore, the existence of a certain extralinguistic state of affairs would imply the existence of a certain true linguistic object. However, snow could be white, even if no language existed in the world.

4.

The same intuitions also cast doubt on the correctness of the converse implication. For if we agree that the sentence "It is not true that snow is white" can be paraphrased according to the formula:

(γ) $\text{It is not true that snow is white} \equiv \mathrm{V}z\ (z = \text{snow} \wedge {\sim}\, z \text{ is white})$,

then the following does not hold:

(δ) $\mathrm{V}z\ (z = \text{snow} \wedge {\sim}\, z \text{ is white}) \rightarrow \mathrm{V}x\ (x = \text{“Snow is white”} \wedge {\sim}\, x \text{ is true})$.

Otherwise we have to agree that the existence of a certain extralinguistic state of affairs would imply the existence of a certain (false) linguistic object.

5.

Such intuitions not captured by the convention (T) could be expressed by a formula, which will be called throughout the paper "convention (J)", even though it is not a convention but rather a *questio facti*:

(J) The sentence "Snow is white" is true ≡ the sentence "Snow is white" asserts an actual state of affairs of snow being white.

[41] I admit I am emboldened to the presentation of these doubts by Professor Stępień and his comments on Tarski's thesis according to which "the application of the truth in classical sense to the common language (which is used by philosophers) leads to an antinomy" (*ibid.*, p. 227). Professor Stępień thinks that „(1) Tarski obtains an antinomy by manipulating expressions whose meaningfulness in respect to the common language is doubtful, to say the least; (2) his reasoning does not actually concern a definition of truth, but rather the common language (interpreted in a specific way)". (*ibid.*)

The convention (J) does not seem so simple as the convention (T), but should simplicity be a *sine qua non* condition for adequacy?

6.

Unfortunately, the formula (α) satisfies neither the convention (T) nor the convention (J). Moreover, it leads to serious troubles of ontological nature: if we look carefully at the formula (α), we realize that a variable „*y*" ranges over the set of such states of affairs, among which some can realize and others can still be only states of affairs that are described by a sentence. Let us call the first type of states „actual states of affairs", and the second one — „expressed states of affairs". Such a distinction leads to the need to characterize the relationship between a given expressed state of affairs (stated in a sentence) and a corresponding actual state of affairs («making» that sentence true). The analysis of phenomenologists shows the difficulties to which the problem of correspondence between analogous states of affairs that belong to such different ontological categories leads. I am not going to decide whether the so called pure intentional states of affairs are theoretical fiction or not.[42] However, I think that the construction of a definition of „truth" only in terms of the notion „actual state of affairs" would be very desirable.

7.

Indeed, I think the following definition satisfies this condition:

(ε_0) $\Lambda x\, [x \text{ is true} \equiv \mathrm{V} y_{\in R}\, (x \text{ states that } y)]$,

where *R* is the class of actual (i.e., realized) states of affairs. Saying it directly:

A SENTENCE IS TRUE WHENEVER IT STATES
AN ACTUAL (REALIZED) STATE OF AFFAIRS.

Let us emphasize that:

(ε_1) $\Lambda x\, [x \text{ is false} \equiv \sim \mathrm{V} y_{\in R}\, (x \text{ states that } y)]$,
(ε_2) $\Lambda x\, [\text{the negation of } x \text{ is true} \equiv \sim \mathrm{V} y_{\in R}\, (x \text{ states that } y)]$,
(ε_3) $\Lambda x\, [\text{the negation of } x \text{ is false} \equiv \mathrm{V} y_{\in R}\, (x \text{ states that } y)]$.

In the above approach we assume that the variable „*x*" ranges over a set that does not contain sentences with negation. Can this assumption be justified?

According to the classical sentential calculus, the unary functor of negation is treated as syntactically «equivalent» to binary propositional functors. I think, however, that this «equivalence» does not imply ontological «equivalence» of semantic correlates of

[42] Professor Stępień interprets the so called formal object — which is being discussed here — as "an object precisely taken from that side to which the knowledge is refered" (*ibidem*, p. 224); therefore in some cases it would be a certain aspect (that is in a wide sense it would be a part) of material object.

these functors. The binary propositional functors, conjunction and disjunction in particular, correspond semantically to some ontological relationships between the states of affairs stated by the respective sentences. However, the negation functor is usually explicitly read as: „It is not true that". Hence, is it not reasonable to treat the negation functor as a degenerated metalinguistic functor („the sentence *x* is untrue/false")?

8.

I would like to emphasize that the formula (ε_0) cannot be understood as:

(ε') Λx [x is true $\equiv$ Vy (x states that $y \wedge y$ holds)],[43]

because in the case of (ε'), as I think, the trouble concerning the formula (α) discussed above can be easily reconstructed. I would like to remind those who would refer to a standard practice according to which:

(a) V$y_{\in Z}$ (Py) and (b) Vy ($y \in Z \wedge Py$)

are different stylistic forms of the same sentence, about a certain point. Namely, I think that an equivalence of the form:

(c) (a) $\equiv$ (b)

does not hold for every pair „*P*"–„*Z*". Namely, it does not hold in the case when the class of *P*–objects is a subclass of the class *Z*. The falsity of (b) can hold for the lack of *Z*–objects. On the other hand, the intension of statements of type (a) leads to the conviction that (a) can be false only because of the lack of those *Z*–objects that are *P*–objects.

9.

The definition (ε_0) is «resistant» to the construction of the liar paradox. Moreover, it does not «produce» problems of expressed states of affairs and their relationships to actual states of affairs. The essential advantage of this definition is that it satisfies the convention (J). This convention can be obtained directly from the definition (ε_0) by an appropriate substitution (see section 2 above).

10.

Although I have accepted a new definition of „truth", I have kept my former point of view about the criteria of truth and falsity. I think that the only criterion of truth

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[43] Similar formulae were previously considered by me in both papers cited above; see the formula Dfsm(b) in „Τι εστιν αλητεια?" (p. 13); see also the formula (10) in *Metafizyka i semiotyka* (p. 189).

(and hence a sufficient condition for the truth of sentences) is the criterion of evidence. With regard to the modifications introduced above, I would now formalize this criterion as follows:

(K_P) $\Lambda x \Lambda y_{\in R}$ [(x states that $y \wedge$ it is self–evident (obvious) that y holds) $\rightarrow x$ is true].

The only criterion of falsity is, in my opinion, the contradictory criterion:

(K_F) Λx (x is self–contradictory $\rightarrow x$ is false).

Whereas the so called pragmatic criterion of truth I regard as a pragmatic criterion of (justified?) BELIEF:

(K_W) $\Lambda x \Lambda y \Lambda z$ [(it is useful for z to believe that y holds $\wedge$ x states that y) $\rightarrow z$ should believe that x is true],

where „useful" can be interpreted as „rational" (e.g. „sufficiently justified"), „morally desirable", etc.

While I would be willing to interpret formulas (K_P) and (K_F) as expressing CONVINCTIONS of mine, I have to say that the formula (K_W) related to the relationships between values and duties, expresses a certain (deep) BELIEF of mine.

For some it is something less, for others something more.

11.

I participated in a very interesting and inspiring discussion concerning the conclusions presented in the previous sections with colleagues and students from the Catholic University of Lublin (that is, with students of Professor Stępień and their students). It instigates me to add some other comments, which are best expressed as replies to fragments of a letter that I received after the discussion from Dr Paweł Garbacz. I quote them with some small modifications.

Dr Garbacz writes:

> If the stating relation is a function, that is:
> $\Lambda x \Lambda y$ [(x states that $y \wedge x$ states that z) $\rightarrow y = z$],
> then the definition (ε_0) implies the definition (α).

I reply: it is so if (ε_0) is interpreted as (ε').

12.

Next Dr Garbacz writes:

If negative sentences state negative states of affairs (which is plausible) and such states of affairs do not exist (which is also plausible, although less so), then every such sentence is false.

My answer to this is as follows. According to the definitions (ε_1) and (ε_2) from Section 7 we have:

(*) Λx (the negation of x is true $\equiv$ x is false),
(**) Λx (the negation of x is false $\equiv$ x is true).

On the other hand, according to the definition (ε_1), if a sentence is false, then it does not state any actual states of affairs. Hence — what does it assert?

There are two possible answers to this question. Namely, we can admit that: (a) a false sentence does not state ANYTHING, or (b) a false sentence states a certain expressed (that is fictitious) state of affairs. Therefore, if we admit (*) and (**), then also in the case of negative sentences there is no need to introduce — ontologically «dubious» — negative states of affairs.

13.

The solution (a) from section 12 leads immediately to the question as to whether a negative sentence is a sentence at all, since it lacks a function that is essential for a sentence: stating something. This is a question similar to the problem that appears in the case of empty names, which do not denote anything and therefore lack an essential function of a name. Such an approach implies that in both cases we should define "a sentence" and "a name" independently of their semantic functions, thus for example by referring to appropriate syntactic or pragmatic properties.

On the other hand, we may also be wary of the solution (b) on the grounds that asserted states of affairs are reintroduced in the proposed definition of "false", and therefore it is reasonable to suppose that also the troubles mentioned in Section 6 come back. Fortunately, it is not the case, since those described states of affairs are not «needed» to define the "truth", while it is only the definition of "truth" that leads to the problem of their relationship with «corresponding» actual states of affairs.

14.

Dr Garbacz argues against the definition of „false" (ε_1) by showing its two «unpleasant» consequences:

(1) A sentence that states nothing is false. If its negation does not state anything either (it might be so in the case of nonsensical sentences), then also the negation is false. Then we have a pair of contrary sentences with the same logical value.

(2) If nothing holds, then every sentence is false. Therefore every pair of contrary sentences is a pair of false sentences. Moreover, all sentences of type: „Nothing holds" and „It is not so that Dr Paweł Garbacz exists" are then false.

As to the consequence (1), it would be tenuous to argue that a pseudo–sentence („nonsensical sentence") and something which is obtained by adding to this pseudo–sentence the expression „It is not so that", is a pair of inconsistent SENTENCES.

In the consequence (2) it is assumed again that the definition (ε_0) should be interpreted as (ε'). I have argued against this interpretation in Section 8 above. Moreover, in the case when nothing holds, I do not see how the use of language could be justified at all, and the use of negation in particular.

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