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ON THE SO CALLED PSYCHOLOGICAL LAW OF NON-CONTRADICTION[1]

The three definitions of the law of non-contradiction highlighted by Jan Łukasiewicz (1910) in Aristotle's *Metaphysics* included, aside from its ontological and logical versions, also the psychological one. Commentators have not reached a consensus as to its precise character. Below I shall present the existing discrepancies and propose a solution.

The law of non-contradiction, formulated in a manner which Łukasiewicz defines as psychological, can be found in the Book Gamma of *Metaphysics*. Łukasiewicz translates the appropriate fragment of the Greek original[2] in the following manner:

(1) No one can believe that the same thing is and is not (as some would claim Heraclitus said), because the speaker does not have to believe what he says (*Metaph.* Γ3, 1005b).

The Polish logician also proposes his own formulation of the psychological rule:

(2) Two convictions corresponding with two contradicting judgements cannot exist at the same time in one mind.

Józef Maria Bocheński also perceives the same fragment of *Metaphysics* as a version of the law of non-contradiction. He does not, however, agree with those who see it as psychological. He calls it a metalogical formulation of the law (1968:

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[2]Unfortunately, in this case "original" means copies of copies.

39). As Jan Woleński writes in his introduction to Łukasiewicz's book, this is the difference (the one between logic and metalogic) which the young (at the time) author did not acknowledge (Woleński 1987).

Józef Andrzej Stuchliński takes a strong stand against this attribution of psychologism to Aristotle's thought. In his essay *Pragmatyczno-logiczna zasada sprzeczności. W obronie Arystotelesa* he defends the man from Stageira against the reproach of psychologism that he sees in Łukasiewicz's book. Consequently, he proposes to replace the psychological interpretation with a pragmatically logical one. The core factor of the change lies in the translation of the Greek word $\dot{\upsilon}\pi o\lambda\alpha\mu\beta\dot{\alpha}\nu\epsilon\iota\nu$. Łukasiewicz translated it as referring to belief — which is seen by Stuchlinski as the above mentioned psychologism — there are, however, other translation options. These options are made possible by the information on different words provided in dictionaries, as well as the knowledge of how Aristotle uses these particular words. Stuchliński proposes the following solution:

(3) For each *X*, *t*, *L*, *R*, *p*, *S* —

if person *X* in time t abides by the conventions (that is rules) of language *L*, which attribute sense (intension) to a sequence of audible sounds *R* produced by *X*'s speech organs by assigning to these sounds a conviction p and therefore introducing these sounds *R* as sentence *S* into the language *L*,

then: person *X* in time t does not acknowledge the sentence: *S* and not-*S* as true in language *L*. (Stuchliński 1994: 49)

Stuchliński describes the rule formulated in this manner as pragmatically logical and believes it to be a law of the (meta)language. It reveals itself through "the inability to ever deem a contradicting sentence to be true in view of the semantic rules (...) of language" (Stuchliński 1994: 51).

It is not difficult to notice that, regardless of the phrasing, the formulation cited above uses (similarly to Łukasiewicz's translation) — a so called mental verb. In the above case it is not the verb *believe*, but *accept as true*. Therefore, we can assume that the psychologism of the version presented by Łukasiewicz is also a quality present in the one provided by Stuchliński.

Meanwhile, $\dot{\upsilon}\pi o\lambda\alpha\mu\beta\dot{\alpha}\nu\epsilon\iota\nu$ can also be translated as: *comprehend, understand, accept (an offer), grasp, suspect*, as well as *explain to oneself* — such information can be found in the dictionary (nota bene the one used by Stuchliński) edited by Zofia Abramowiczówna (1965). I would like to use the translations listed above to continue the "defence of Aristotle" undertaken by Stuchliński. This task may be facilitated by the works of W. V. O. Quine, H. P. Grice and Roland Barthes as well as certain observations from the field of logic.

In his concept of radical translation, Quine (1960) analyses a situation when one is confronted with a foreign language but cannot fall back on the resemblance of the received message to the language one already knows and can neither use a dictionary nor ask a translator for help. This is a case of what he calls the indeterminacy of translation: there is no single correct answer to the question of what would be the most exact translation of the phrase. We must choose one of many possible solutions based on the foreigner's reaction to our linguistic behaviour (it may either be accepted or not). The role of logic in translation is one of the subjects of *Philosophy of Logic*: "The canon 'Save the obvious' bans any manual of translation that would represent the foreigners as contradicting our logic (apart perhaps from corrigible confusions in complex sentences)" (1970: 83).[3] The above also refers to the interpretation of sentences from our own language: we are prone to suspect terminological ambiguousness rather than intentional contradiction (1960: 59).

Quine's idea found its 'semantic' continuation in the so called 'radical interpretation' concept formulated by Donald Davidson, where the recipient is faced with the interlocutor's statements and their not always straightforward intentions. The recipient co-creates the message by using the available data and assuming that the interlocutor's convictions are not contradictory to the recipient's. If he is not able to uphold this assumption and receive a coherent message, he is forced to abandon his attempts at communication and assume that the interlocutor is not saying anything (1991: 137).

The principles of discourse were also described by Grice in his famous article from 1975; he expected the interlocutors to keep their statements in close relation to the subject of the conversation.[4] Furthermore, the recipient is responsible for finding a way of connecting the words spoken by his interlocutor with the subject of the conversation. The success of such an attempt is dependent on the existence of an appropriate principle and the recipient's adherence to it (as well as other factors, for instance the knowledge of the surrounding world).[5]

Barthes (1970), (following Louis Hjelmslev), proposes the concept of the so called second-order semiotic systems. They are based on "ordinary" sign systems, such as the natural language. The described systems begin a complex semiotic process within which both components of the basic sign — *signifiant* and *signifié* — function as the component that carries meaning. The act of using a particular word or photograph in a certain context MEANS something and it is for the recipient of the given sign to decide what was meant in particular. As a result,

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[3]See Haack (1974: 16) for excluding truth functions from this rule. About the differences between other conjunctions of natural language see Quine (1960, §13).

[4]I have discussed Grice's statements more thoroughly in the article *Formalna zasada sprzeczności w logice i języku naturalnym* in the present publication.

[5]A simple example of the above can be seen in the following exchange: "What is the time?" "The bells have just struck".

the levels on which a sign can be interpreted gradually become more narrow. The above resembles a theory formulated by Charles Sanders Peirce, who wrote about the constant process (ending only in death) of one thought being explained and interpreted by the next (1955: 234).

Drawing conclusions from sentences is something different than drawing conclusions from facts. This is also related — in terms of logic — to differentiating between rules and metarules of inference. The first one may be illustrated by the rule of detachment: from two proven sentences, of which one is an implication and the other is identical with its antecedent, we can deduce the consequence of the implication. The second type of rule, i.e. a metarule of inference, is constituted by non-straightforward reasoning. Based on achieving a contradiction, it allows one to conclude that the assumed sentence A is not true.

In the light of the above mentioned comments about the recipient's role in discourse and the classification of inference rules, the following may be observed: a contradicting statement, regardless of its topic, is also interpreted by the (also, if not mainly) AS SUCH i.e. as a contradicting statement. The fact that such a statement occurs is a challenge for the recipient, who may try to decipher its meaning. However, he does not have to be willing to interpret the message in a literal sense. Similarly to Quine (and Aristotle) the recipient may not wish to *comprehend, understand, accept (an offer), grasp, suspect*, or *explain to oneself* that things occur in such a contradictory manner.

Therefore, a modern version of the law of non-contradiction can be formulated as follows:

A contradicting message is not a self-sufficient message, but a piece of meta-communication.

I hope that the above way of formulating the law is in line with Aristotle's way of thinking. I believe that this claim is confirmed by the following translations of the excerpt from the Gamma Book (*Metaph.* Γ3, 1005b). The first one is by Tadeusz Żeleźniak: "Since not carrying one meaning results in not having a meaning at all, and if names have no meaning, the idea of communication between people, or even truthfully speaking the notion of a dialogue with oneself, become void" (Aristotle 1996).

The second one by Kazimierz Leśniak concerns the unity of transferred content: "Not having one meaning is the same as having no meaning, and if words have no meaning, then any exchange of thoughts between people, or even with oneself, is nullified [...]" (Aristotle 1983).

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