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## Bogusław Wolniewicz on the Formal Ontology of Situations

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### Introduction

"The theory presented below was developed in an effort to clarify the metaphysics of Wittgenstein's Tractatus. The result obtained, however, is not strictly the formal twin of his variant of Logical Atomism. but something more, general, of which the latter is just a special case. One might call it an ontology of situations. Some basic ideas of that ontology stem from Stanislaw Wittgenstein's Tractatus, Oxford, 1968 and Suszko Ontology in the Tractatus of L. Wittgenstein - Notre Dame Journal of Formal Logic, 1968.

Let L be a classic propositional language. Propositions of L are supposed to have their semantic counterparts in the realm of possibility, or as Wittgenstein put it: in logical space. These counterparts are situations, and S is to be the totality of them. The situation described by a proposition a is S(a). With Meinong we call it the objective of a." (pp. 381-382)

From: Bogusław Wolniewicz, "A Formal Ontology of Situations", *Studia Logica* 41, 1982, pp. 381-413.

"Different ontologies adopt different notions of existence as basic. Aristotle's paradigm of existence is given by the equivalence:

(A) to be = to be a substance.

On the other hand, the paradigm of existence adopted in Wittgenstein's Tractatus is given by the parallel equivalence:

(W) to be = to be a fact.

Now, an Aristotelian substance is the denotation of an individual name, whereas a Wittgensteinian fact is the denotation of a true proposition. It seems therefore that the notions of existence derived from these two paradigms should be quite different, and one might readily expect that the metaphysical systems erected upon them will display wide structural discrepancies.

It turns out, however, that in spite of this basic difference there runs between these two systems a deep and striking parallelism. This parallelism is so close indeed that it makes possible the construction of a vocabulary which would transform characteristic propositions of Wittgenstein's ontology into Aristotelian ones, and conversely. To show in some detail the workings of that transformation will be the subject of this paper.

The vocabulary mentioned is based on the following four fundamental correlations:

#### Aristotle

- 1) primary substances (*substantiae primae*)
- 2) prime matter (*materia prima*)
- 3) form (*forma*)
- 4) self-subsistence of primary substances (*esse per se*)

#### Wittgenstein

- 1) atomic facts
- 2) objects
- 3) configuration
- 4) independence of atomic facts

Aristotle's ontology is an ontology of substances, Wittgenstein's ontology is an ontology of facts. But concerning the respective items of each of the pairs (1)-(4) both ontologies lay down conditions which in view of our vocabulary appear to be identical. To show this let us confront, to begin with, the items of pair (1): substances and facts.

(The interpretation of Aristotle adopted in this paper is the standard one, to be found in any competent textbook of the history of philosophy. Therefore, with but one exception, no references to Aristotle's works will be given here.) Relatively to the system involved substances and facts are of the same ontological status. Aristotle's world is the totality of substances (*summa rerum*), Wittgenstein's world is the totality of facts (*die Gesamtheit der Tatsachen*). For Aristotle whatever exists in the basic sense of the word is a primary substance, for Wittgenstein - an atomic fact. Moreover, both ontologies are MODAL ones, allowing for different modes of being (*modi essendi*); and both take as basic the notion of 'contingent being' (*esse contingens*), opposed to necessary being on the one hand, and to the possibility of being on the other. Both substances and facts are entities which actually exist, but might have not existed. The equality of ontological status between substances and facts is corroborated by the circumstance that both are PARTICULARS, there being - as the saying goes - no multiplicity of entities which FALL UNDER them.

Substances and facts stand also in the same relation to the ontological categories of pairs (2) and (3). Both are always COMPOUND entities, a substance consisting of matter and form, and a fact consisting of objects and the way of their configuration. But in neither of the two systems is this compoundness to be understood literally as composition of physically separable parts or pieces. The compoundness (*compositio*) of a substance consists in its being formed stuff (*materia informata*), and the compoundness of a fact in its being a configuration of objects.

In view of correlation (4) we have also an equality of relation which a substance bears to other substances, and a fact to other facts. Self-subsistence is the characteristic attribute of primary

substances: *substantia prima* = *ens per se*. If we take this to mean that each substance exists independently of the existence or non-existence of any other substance we get immediately the exact counterpart of Wittgenstein's principle of logical atomism stating the mutual independence of atomic facts. It should be noted that thus understood the attribute of self-subsistence or independence is a relative one, belonging to a substance - or to a fact - only in virtue of its relation to other substances - or facts.

From a Wittgensteinian point of view Aristotle's substances are not things, but hypostases of facts, and thus their names are not logically proper names, but name-like equivalents of propositions. (By that term we mean roughly either a noun clause of the form 'that p', or any symbol which might be regarded as a definitional abbreviation of such clause.) Surely, from the Aristotelian point of view it might be easily retorted here that just the opposite is the case: substances are not 'reified' facts, but on the contrary - facts are 'dereified' substances. Without passing judgement on these mutual objections let us note in passing that their symmetric character seems to be itself an additional manifestation of the parallelism discussed." (pp. 208-210, notes omitted)

From: Bogusław Wolniewicz, "A Parallelism Between Wittgensteinian and Aristotelian Ontologies", in: Robert S. Cohen and Marx Wartofsky (eds.), *Boston Studies in the Philosophy of Science*, Vol. IV, Dordrecht: Reidel 1969, pp. 208-217.

### Wolniewicz on Wittgenstein's *Tractatus*

"The *Tractatus* is a masterpiece of rare power and ravishing beauty. Its content is a profound and highly coherent philosophy of language, based upon a radically new kind of metaphysics: the metaphysics of facts and situations. (Meinong, with his notion of the 'objective' of a proposition, apparently was moving in the same direction. But he never came near asking himself any of the two crucial questions: (1) When, if ever, are the objectives of different propositions identical? (2) What, if any, is the relation of the objective of a compound proposition to the objectives of its components?) Moreover, the *Tractatus* anticipated many of the later developments of logical semantics, especially those commencing around 1950 and connected with its algebraization. The kernel of its message may be put down as follows. The fundamental problem of the *Tractatus*, as of all philosophy, concerns the relationship of thought and reality. This relationship is mediated by language, and so it may be decomposed into the relative product of two relations: one between thought and language, the other between language and reality. Let us mark the latter by 'f', the former by '?'.

It has been maintained that according to the *Tractatus* the projective relation f between language and reality has to be an isomorphism. This, however, is not borne out by the text. To satisfy the conditions laid down by Wittgenstein it is enough for to be a *homomorphism*, and this already makes a lot of a difference. In the first place, we are confronted now with two delicate questions: (1) Which is the direction of that homomorphism: from language to reality, or the other way round? (2) Is it a homomorphism *onto*, or merely one *into*? Neither of these questions has a trivial answer in the context of the *Tractatus*.

We assume here that the relation f is a homomorphism on the language *L* onto the reality *R*, i.e., that  $f: L \rightarrow R$ . Thus reality is a homomorphic image of language. But language is the totality of propositions, and the reference of meaningful propositions are possible situations. Consequently, reality is not the world, but the logical space; i.e., it is not the totality of facts, but the totality of possibilities. Thus language is more capacious than the world, and the number of propositions is greater than even that of situations.

The simplest non-trivial homomorphism of that kind is the well-known Fregean one. Language is mapped under it onto the set of the two classic truth-values, and the corresponding two-element Boolean algebra is then the logical space. Thus for Frege there are just two possible situations: the True and the False. This is so because his only stipulation with regard to the reference of propositions is that *contradictory* propositions cannot have the same reference. In the *Tractatus*, however, it is stipulated further that logically *independent* propositions cannot have the same reference either. This move is the gist of its logical atomism, transforming the Fregean homomorphism  $f: L \rightarrow \{1,0\}$  into the composition of two other ones:  $f'$  on *L* onto logical space, and  $f''$  on logical space onto the set of truth-values. (1)

The aim of the *Tractatus* was to trace the boundaries of clear thought:

*Philosophy... should trace the unthinkable from within by means of the thinkable. By presenting clearly what may be expressed it will point to the inexpressible. (2)*

The positivistically-minded members of the Vienna Circle deemed to recognize in these words their own 'demarcation problem', together with their own hostility towards 'metaphysics' and their cult of 'science'. It was a monumental misunderstanding. To Wittgenstein the metaphysical is indeed the inexpressible, but this is not to mean that it is regarded as some kind of delusion or hoax. On the contrary, the hoax is the idea of a 'scientific philosophy'.

In the *Tractatus* the tracing of the boundaries of the inexpressible was to be accomplished at one stroke. Logical space  $R$  fills the realm of the expressible  $E$  completely, i.e., we have  $E = R$ . Consequently, the homomorphism  $f$  is onto the expressible, and what is left, evidently, is only the inexpressible. This grandiose project, however, was soon to encounter grave technical difficulties, and then Wittgenstein simply dropped it. This was rash. Not all the difficulties were quite as insuperable as they might have seemed, and the *Tractatus* left room for manoeuvre. It might have been helpful, for instance, to weaken the homomorphism  $f$  to one *into* the expressible. Then instead of the one language  $L$  we could consider a whole series of languages  $L_0, L_1, \dots$ , and a corresponding series of logical spaces  $R_0, R_1, \dots$ . The realm of the inexpressible would be approximated by the latter 'from within', starting from what is expressible in the language  $L_0$  at hand. Certainly, the series of logical spaces need not be monotonic, and in advance there would be no telling whether what is inexpressible at a given stage  $L_1$  is absolutely or only relatively so. Thus the final tracing of the boundaries of the inexpressible would recede to infinity, but for theory this could hardly count as an objection." (pp. 77-79)

## Notes

(1) For details cf. Wolniewicz, B. 1979, 'A Wittgensteinian Semantics for Propositions', in Diamond C. (ed.) *Intention and Intentionality: Essays in Honour of Professor G E M Anscombe*, Harvester Press, Brighton.

(2) Wittgenstein, L., *Tractatus Logico-Philosophicus*, 4.113-4.114.

From: Bogusław Wolniewicz, "On the Discontinuity of Wittgenstein's Philosophy" in: Harry A. Lewis (ed.), *Peter Geach: Philosophical Encounters*, Dordrecht: Kluwer 1991, pp. 77-81.