

A Digital Turn In Philosophy and Wittgenstein about “Is”

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Wittgenstein's remarks about the set of logically different meanings of the word-homonym “is” are very important for adequately understanding a process starting with the philosophy of the digital turn and resulting in a digital turn in philosophy. By the digital turn in philosophy I mean the turn to digital philosophizing. What does the term “digital philosophizing” mean? Below I attempt to clarify the meaning of this term and to show its necessary connection with Wittgenstein's considerations about “is”. Initially the turn to digital philosophizing appeared in logic. It resulted in the computer culture of our days. Now this culture is going to widen the sphere of digital philosophizing: not reduce it to logic only. It is relevant to talk about a digital formal ethics, a digital metaphysics, etc. Wittgenstein was one of those analytical philosophers who worked in this prospective direction.

3.323. In the language of everyday life it very often happens that the same word signifies in two different ways ... Thus the word “is” appears as the copula, as the sign of equality, as the expression of existence; “to exist” as an intransitive verb like “to go”; “identical” as an adjective ...

3.324. Thus there easily arise the most fundamental confusions (of which the whole philosophy is full).

3.325. In order to avoid these errors, we must employ a symbolism which excludes them ...

L. Wittgenstein. *Tractatus logico-philosophicus*

Wittgenstein tried to expand the digital culture of logic to the humanities. Naturally, the reaction was negative. The resistance by traditional philosophers was strong. However, the times are changing: today many philosophers understand that the digital turn is indispensable for the progress of human civilization. In different spheres of human life, digital technologies demonstrated their ability successfully to compete with traditional ones. I guess that, in particular, the digital turn will be fruitful for the development of philosophy since it is a system some parts of which are computable. I talk about only some parts of philosophy because digital and traditional technologies (*analogue* ones) of philosophizing are not absolute opposites, but complements of each other.

If logic is not taken into account (if excluded), then it is true that up to the present time the traditional mechanisms (*analogue* ones) of using and developing philosophy still dominate. The basic characteristics of philosophical systems and of understanding them have an *analogue* character and are regulated by *analogue* methods. Therefore, the quality and precision of philosophizing is determined by the quality and precision of *analogue* philosophical systems represented at the level of natural language. It is evident that the quality and precision of traditional philosophizing is low. Moreover, the functioning and development of traditional philosophy requires long periods of creative work by highly qualified masters, who appear very seldom. The period in history of philosophy since its beginnings to the present time, may be called the epoch of great masters. *Digital* technologies mean the end of this very long epoch. They imply *discreteness* of philosophical discourse. By virtue of this discreteness, the quality and precision of philosophizing become significantly higher

than the best achievements of the analogue philosophy discourse. Moreover, the results of digital philosophizing are almost independent from the emergence of rare talents and geniuses, possessing the highest qualifications and realizing themselves by virtue of a very long and complicated process of individual creative work.

The digital technologies of philosophizing represented at the level of artificial languages transform the continuing history of philosophy into a united technological complex, which is available for any user. This means a digital revolution in philosophy. But where is it? Is it taking place today? No. Up to the present day, it does not exist in the actual processes of teaching, studying and investigating philosophy (if logic is not taken into the account). Moreover, the overwhelming majority of philosophers believe that a digital revolution in philosophy is impossible in principle. They require a concrete example of digital philosophizing when they are actually convinced that nobody can show this example. Therefore, the best way to demonstrate the possibility and value of developing and using digital metaphysics is to construct a simple concrete example of it. Below an attempt to constructing such a basic variant of digital metaphysics is submitted.

The mentioned basic system of digital metaphysics is a discrete mathematical simulation of a common basis shared by the metaphysical systems of Parmenides of Elea, Aristotle, Descartes, Spinoza, Leibniz and others. The common basis of these systems abstracted from their contents is simulated below by virtue of a finite, but open (potentially infinite), list of equations of a two-valued algebra of formal axiology. The submitted mathematical representation of metaphysics-as-a-system is based upon the fundamental hypothesis that, in its essence, *metaphysics is formal axiology (theory of value forms)*. In particular, metaphysics is a masked theory of moral-legal forms of good and evil (bad). Obviously this is a non-trivial hypothesis. Below, by virtue of the hypothetical-deductive method, I will investigate the set of logical consequences following from the above-formulated non-trivial assumption. One of the most important consequences is the corollary that under some definite conditions it is *necessary* that metaphysical sentences (affirmations about value forms) are considered as evidently either false or senseless (possessing no meaning). It is a fact of the history of philosophy that such treatment of metaphysical sentences is very popular. By virtue of the hypothesis under investigation, normal-people's negative attitude toward metaphysical sentences can be explained in the following way. Usually, people treat metaphysical sentences as empirical ones, which use the logical connective “is”. Normal people presuppose that in all possible contexts the word “is” has one and the same meaning, namely, in every sentence of natural language “is” means the logical connective. In this case, properly perceiving metaphysical statements as ones of mentally ill (psychically not normal, crazy) persons is *necessary*.

However, according to Wittgenstein, the word “is” is a homonym. I perfectly agree with the above-cited Wittgenstein remarks about “is”. Moreover, I would like to add that in natural language, along with the formal-logical meaning of the word, “is” has also a formal-axiological one. In natural language the word “is” may stand for a *formal-*

axiological equivalence relation and, from my point of view, *in the natural language of metaphysics it does stand for the formal-axiological equivalence*. The precise definition of this relation by means of the algebra of formal axiology is submitted below. The mentioned axiological equivalence is a relation between moral-legal evaluation functions (in the strict mathematical meaning of the word "function"). The evaluation functions are considered as axiological meanings of words and word combinations of natural language (especially in metaphysics). From the viewpoint of the hypothesis under investigation, the notions of metaphysics are the evaluation functions (in the mathematical meaning of the word). In the rigoristic (two-valued: "black-and-white") axiology, the domain of values of variables of these functions is the set {g (good), b (bad)} consisting of the two elements. The evaluation functions under investigation take their values from the same set.

For constructing a digital simulation of metaphysics, let us introduce some concepts and symbols of the artificial language of algebra of two-valued axiology. Let the letters *a*, *c* mean *axiological forms* of metaphysical things (free activities or subjects or states of affairs) possessing one of the two *axiological values*: either *g* (good), or *b* (bad).

Glossary for part 1 of the table below: Symbol *Ba* stands for unary axiological operation «being (existence) of *a*». Symbol *Ua* means evaluation function «unity of *a*». *Na* means «non-being of *a*». *Va* stands for «set of *a*». *La* — «simplicity of *a*». *Wa* — «complexity of *a*». *Sa* stands for «non-change (immutability, non-movement) of *a*». *Ma* — «change (movement) of *a*». *Ca* — «completeness of *a*». *Pa* — «emptiness of *a*». *Ya* — «consistency (non-contradictoriness) of *a*». *Za* — «inconsistency (contradictoriness) of *a*». *Ha* — «whole (ness) of *a*».

Glossary for the part 2 of the below table: *Xa* — «part of *a*». *Aa* — «general, universal (ity) of *a*». *Ta* — «particular (ity) of *a*». *Ga* — «uniqueness, singularity of *a*». *Ka* — «knowledge (episteme) of *a*». *Da* — «opinion (doxa) about *a*». *Ra* — «rational (ity) of *a*». *Fa* — «feeling *a*». *Ja* — «illusion (mistake) of *a*». *Ia* — «ideal (ness) of, perfect (ness) of *a*». *Qa* — «real (reality) of *a*». *Oa* — «optimal (ness) of *a*». *N'a* — «opposite of *a*». The evaluation-functional sense of the above-mentioned axiological operations is defined by the following table, which consists of two parts.

(Part 1)

| | | | | | | | |
|---|----|----|----|----|----|----|----|
| a | Ba | Ua | Na | Va | La | Wa | Sa |
| g | g | g | b | b | g | b | g |
| b | b | b | g | g | b | g | b |

| | | | | | | | |
|---|----|----|----|----|----|----|--|
| a | Ma | Ca | Pa | Ya | Za | Ha | |
| g | b | g | b | g | b | g | |
| b | g | b | g | b | g | b | |

(Part 2)

| | | | | | | | |
|---|----|----|----|----|----|----|----|
| a | Xa | Aa | Ta | Ga | Ka | Da | Ra |
| g | b | g | b | g | g | b | g |
| b | g | b | g | b | b | g | b |

| | | | | | | | |
|---|----|----|----|----|----|-----|--|
| a | Fa | Ja | Ia | Qa | Oa | N*a | |
| g | b | b | g | g | g | b | |
| b | g | g | b | b | b | g | |

Let the symbol «*a*+=*c*» stand for the relation: «the axiological form *a*, is *formally-axiologically equivalent* to the axiological form *c*». In the algebra under review, *metaphysical objects are called formally-axiologically equivalent if and only if their axiological forms are formally-axiologically equivalent*. By definition, an axiological form *a* is called *formally-axiologically equivalent* to an axiological form *c* if and only if these axiological forms (*a* and *c*) acquire identical axiological values (*g* or *b*) under any possible combination of axiological values of the variables occurring in these forms.

It is important to emphasize that in natural language the words "is", "means", "consequently", etc. are homonyms: they may stand not only for the corresponding notions of formal logic, but also for the above-defined formal axiology notion «*a*+=*c*». This statement is supported by Wittgenstein's observation that "is" may mean not only *the logic connective* (which is not symmetrical; the conversion is not logical), but also *an identity* relation, which is symmetrical (Wittgenstein, P. 55). Thus the words "is", "means", etc. can produce confusions at the intersection of formal logic and formal axiology. Mixing the two essentially different meanings of the words can cause confusions.

By means of the above-defined algebra, it is easy to demonstrate the following *formal-axiological equivalences*. (In the below list of equations, the word "is" stands for the above-defined relation "="+".)

- 1) $Ba+=Ua$: being is unity.
- 2) $Ba+=NVa$: being is non-being of set.
- 3) $Ba+=La$: being is simplicity.
- 4) $Ba+=NWA$: being is non-being of complexity.
- 5) $Ba+=Sa$: being is non-change.
- 6) $Ba+=NMa$: being is non-being of movement.
- 7) $Ba+=Ca$: being is completeness.
- 8) $Ba+=NPa$: being is non-being of emptiness.
- 9) $Ba+=Ya$: being is consistency.
- 10) $Ba+=NZa$: being is non-being of contradiction.
- 11) $Ba+=Ha$: being is wholeness.
- 12) $Ba+=NXa$: being is non-being of parts.
- 13) $Ba+=Aa$: being is universality.
- 14) $Ba+=NTa$: being is non-being of particularity.
- 15) $Ba+=Ga$: being is uniqueness (singularity).

The conjunction of the above formal-axiological equations is a mathematical simulation of the main metaphysical ontological tenets of Parmenides of Elea. Some epistemo-

logical tenets of his metaphysics are represented by the following *formal-axiological equivalences*:

- 16) $Ka=+=RKa$: knowledge (episteme) is rational knowledge (reason).
- 17) $Fa=+=Ja$: feeling is illusion (mistake).
- 18) $Ka=+=NJa$: knowledge (episteme) means non-being of mistakes.
- 19) $Fa=+=NRKa$: feeling means non-being of rational knowledge.
- 20) $RKa=+=N^{\bar{}}Fa$: reason is opposite to feeling.
- 21) $Ka=+=KBa$: knowledge (episteme) is knowledge of existence.
- 22) $Fa=+=Da$: feeling is an opinion (doxa).
- 23) $Da=+=NKa$: opinion is non-existence of knowledge.
- 24) $Ka=+=N^{\bar{}}Da$: knowledge (episteme) is opposite to opinion (doxa).
- 25) $Ma=+=Ja=+=Fa$: movement is illusion (feeling).
- 26) $Va=+=Ja=+=Fa$: set is illusion (feeling).
- 27) $Wa=+=Ja=+=Fa$: complexity is illusion (feeling).
- 28) $Pa=+=Ja=+=Fa$: emptiness is illusion.
- 29) $Na=+=Ja=+=Fa$: non-being is illusion.
- 30) $Fa=+=Na$: feeling is non-being.
- 31) $Ka=+=NZa$: knowledge is non-being of contradiction.
- 32) $Ka=+=CKa$: knowledge is complete knowledge.

Wittgenstein's philosophical ideas are in direct opposition to the above-listed system of metaphysical tenets (of Pythagoras, Parmenides, Plato, etc.) simulated by means of the above-defined algebra. However, in spite of the manifest opposition of Wittgenstein's linguistic empiricism to rationalistic metaphysics, his critical remarks appear important for explicating, explaining and understanding the tenets of rationalistic metaphysics. Why? Let us answer this question by virtue of investigating the mathematical simulation of metaphysics. For this aim, let us list below some formal-axiological equivalences representing the rationalistic metaphysics of facts, values, and norms.

- 39) $Ia=+=Qa$: ideal is real.
- 40) $Qa=+=Ia$: real is ideal.
- 41) $Oa=+=Qa$: optimal is real.
- 42) $Qa=+=Oa$: real is optimal.

Pondering over these equivalences, one naturally gets an impression that from the common sense viewpoint they are paradoxical (even crazy!). For ordinary people possessing mental health, the above equations seem to be either evidently false propositions or combinations of words making no sense. Therefore it is not a surprise that during the history of philosophy these equivalences were sharply criticized. For instance, Voltaire used to criticize Leibniz's optimistic equations # 41-42. However these equations are not specific properties of only Leibniz's philosophy, but universal and necessary properties of any rationalistic (anti-empirical) metaphysics. Thus there are too many "crazy" persons among prominent philosophers: all those

who are not empiricist-minded thinkers ought to be evaluated as "crazy" ones. Perhaps this is a too strong statement. Hence, it is sound to investigate a hypothesis that Voltaire's attempt to make a fool of Leibniz is based upon a naturally concealed linguistic blunder to be discovered and eliminated. Here Wittgenstein's idea of the indispensability of language therapy is perfectly relevant. I believe that the particular case of the linguistic fallacy underlying Voltaire's controversy with Leibniz is an exemplification of a more universal and fundamental linguistic fallacy of chaotically mixing and absolutely identifying *metaphysical* (=formal-axiological) and *scientific* (=formal-logical-and-empirical) aspects of research in the humanities. Discovering and eliminating this linguistic blunder by using the artificial language of formal axiology is the main goal of the present paper. I consider that this goal can be reached by virtue of combining "Hume's Guillotine" with Wittgenstein's philosophy of ordinary language. Such combined results are found in the following explication of the principle of autonomy of facts and values.

Let Ea stand for an act of informing (true or false affirming) that a takes place in reality. The above-said (about " $=+=$ " and the formal-logical connectives) may be formulated as the following rule $A—D$. (A) From the truth of $a=+=c$ it does not follow logically that the logical equivalence of Ea and Ec is true. (B) From the truth of the logical equivalence of Ea and Ec it does not follow logically that $a=+=c$ is true. (C) From the truth of $a=+=c$ it does not follow logically that either (Ea logically entails Ec), or (Ec logically entails Ea) is true. (D) From the fact that either (Ea logically entails Ec), or (Ec logically entails Ea) is true, it does not follow logically that $a=+=c$ is true. This rule is an effective remedy for the impression that metaphysical sentences are symptoms of illness. To produce this remedy, Wittgenstein's observations about "is" are indispensable.

The above submitted discrete mathematical simulation of traditional metaphysics clarifies the meaning of the term "digital philosophizing". This term stands for making *discrete* philosophical statements – metaphysical *equations* (formal-axiological *equivalences*) – by means of *precise calculating compositions of discrete evaluation functions* at the level of appropriate artificial language instead of the traditional generation of texts by means of natural language. The term "analogue (traditional) philosophizing" stands for making *approximate* philosophical statements about *analogies among continual evaluation systems* at the level of natural language. For instance, in digital philosophy, equations 41, 42 representing G.W. Leibniz's optimism are results of comparing the table definition of the function Q (real) with the table definition of the function O (optimal). This comparison gives the famous statement of G.W. Leibniz. To recognize the difference between this (digital) type of philosophizing with a traditional one, it is relevant to look through the long text of Leibniz's "Theodicy" where he has established and elaborated his optimism by means of traditional philosophizing.

Thus, in brief, "analogue (traditional) philosophy" deals with *vague analogies among continual evaluation functions*. On the contrary, "digital philosophy" deals with *exact identities (equivalences) among discrete evaluation functions*. (The word "digital" is used because 0 and 1 are implied: the value "bad" may be replaced by 0 and the value "good" – by 1. Hence in the digital metaphysics it is relevant to use digital technology which is analogous to the one used in logic. I mean the technology of computing truth-tables for establishing logic equivalences.)

Literature

Wittgenstein, L. 1949 *Tractatus logico-philosophicus*, London:
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