Two Worlds, Two Languages, Two Semantics, Two Linguistic Principles of Compositionality, and Two Kinds of Nonsenses
(Criticizing Wittgenstein’s Philosophy of Morals and of Metaphysics by Means of Discrete Mathematical Modeling a Formal-Ethical Aspect of His Worldview)

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The paper represents a systematical critique of Wittgenstein’s attitude to semantics of the natural language of ethics and metaphysics. The critique is implemented by means of a discrete mathematical simulation of the famous principle of separation of facts and values. For precise mathematical formulating this separation principle a two-valued algebra of formal ethics is exploited. Being equipped with the fact-&-value-separation principle the author submits systematical separating two worlds, two opposite aspects of natural languages, two formal semantics, two kinds of meanings, two different principles of linguistic compositionality of meanings, and two kinds of nonsenses. The twin worlds, twin aspects of natural languages, twin formal semantics, twin kinds of meanings and twin kinds of nonsenses are inter-excluding and inter-complementing ones. The first elements of the twins are related to the world of “Tractatus”. The second elements of the twins are related to the world of pure values which world is transcendent to the one of “Tractatus”. The paper is targeted at explicating and precise tabular defining formal-axiological meanings of words and compound word-combinations of the natural language of morals and metaphysics. The author proclaims that according to the submitted (novel) formal-axiological principle of linguistic compositionality (of meanings), formal-axiological meaning of a compound word-combination (of the natural language of morals and metaphysics) is a composition of such moral-evaluation-functions which are formal-axiological meanings of the parts of the compound word-combination. The idea of computing formal-axiological meanings of compound word-combinations (of the language of morals and metaphysics) is exemplified by the submitted discourse about proper knowledge, alethic faith, and alethic tolerance. In the algebraic system of formal ethics a precise definition of the formal-ethical-equivalence relation among moral-evaluation-functions is given and formal-ethical equations are generated by means of computing relevant moral-evaluation-tables. Equations linking moral-evaluation-functions “knowledge”, “assumption”, “faith”, “doubt” are used as representative examples.

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The title of this paper is to irritate those who are fans of Ludwig Wittgenstein and know his biography and writings very well. Why? First of all it is so because Wittgenstein used to write and speak about: the world but not (two) worlds; the language but not (two) languages; the nonsense but not (two) kinds of nonsenses. Hence this paper is devoted not to creating a precise realistic picture of Wittgenstein’s philosophy as such but to criticizing his worldview by means of discrete mathematical modeling a formal-ethical aspect of it. According to logic, methodology, and philosophy of science, it is normal that model and original do not coincide: they must be similar but not completely identical; otherwise model has no heuristic value. Obviously Wittgenstein did not undertake discrete mathematical modeling a formal-ethical aspect of his worldview. He did not undertake a formal-ethical investigation as well. Sometimes he spoke and wrote of ethics but not of formal one. Moreover he summoned and tried to avoid explicitly talking of (positive) ethics: his talks (and even the lecture) of ethics were negative: positive talking of ethics (and of metaphysics) was labeled as meaningless. One can paradoxically characterize his “Tractatus logico-philosophicus” as a treatise about ethics but the “Tractatus” defines ethics only negatively and implicitly: it does not contain manifestly defining and substantiating positive moral values. Wittgenstein believed that positive moral values are to be shown in human conduct instead of being spoken about (as speaking of positive moral values has no meaning). According to Wittgenstein’s biography he had shown his positive moral values in his moral and religious behavior. Nevertheless below I undertake investigating possibility of manifest (explicit) formulating quite a positive ethical system (a formal-ethical one) of moral evaluations in spite of the well-established and recognized fact of flexibility and relativity of moral assessments of elementary moral actions. That is why fans and connoisseurs of Wittgenstein shall be irritated by the below presented formal-ethical discourse. Notwithstanding this expectation I believe that the below submitted discourse is worth taking seriously and discussing systematically.

In times of Wittgenstein the descriptive-indicative meanings of empirical sentences and the formal-logical semantics of the language of science were investigated carefully. On the contrary, the possibility of construction and systematical application of a formal-axiological semantics of evaluative sentences (of ethics, aesthetics, religion, metaphysics, etc.) was not recognized. (I think that it is not recognized properly even today.) Investigating the evaluative (formal-axiological) semantics of the natural language was underestimated and even ignored. Probably at the level of sub-consciousness Wittgenstein perceived this asymmetry situation and therefore instinctively tried to correct it by attracting attention to semantics of the natural language which combined both aspects: the factual (formal-logical) and the evaluative (formal-axiological) ones.

According to Wittgenstein’s “Tractatus”, the world is a totality of facts [22]. Let the symbol $W_1$ stand for this world. Values do not exist in the world $W_1$. Hence even “truth-values” belong not to the world of facts but to the one of values: “Logic is transcendental” [22]. Ethics, aesthetics and other axiological disciplines are transcendental as well [22]. That language which is isomorphic
to the world of “Tractatus” (let that language be called L₁) must be not used in any talks about pure values: otherwise the talks become meaningless. Using the language L₁ one must abstain from saying something about values. Otherwise using the language L₁ leads to nonsenses.

Nevertheless, as strange as it is, Wittgenstein himself was not perfectly silent with respect to values; he did not absolutely abstain from discussing them at the level of natural language. Many facts of his private life [23], philosophical texts, and confessions of the people with whom he communicated demonstrate that he shared quite definite religious and moral values and norms, attempted to follow them systematically in his life [3; 4; 7; 10; 15; 22—27]. Thus he really lived in the world of values or at its border-line (let the world of values be called W₂). By definition, the world W₂ is a totality of values (and only values). Facts do not belong to W₂. The two worlds W₁ and W₂ exclude and complement each other. Their union makes up the universe of discourse accomplished by means of the natural language. That language (L₁), which is isomorphic to the world of “Tractatus”, is an important subsystem of the natural language as a system. Another important subsystem of the natural language system is such a language (let it be called L₂), which is isomorphic to the world of pure values (W₂). L₂ must be not used in any talks about pure facts: otherwise the talks become meaningless. Using only the language L₂ one must abstain from saying something about facts as such. Otherwise the usage of L₂ leads to nonsenses.

There are two different kinds of nonsenses. One kind of them (let us call it N₁) is a result of using L₁ for talking about W₂. Another kind of nonsenses (let us call it N₂) is a result of using L₂ for talking about W₁. The relationship < W₁, L₁> makes up the descriptive-indicative (formal-logical) semantics to be called S₁. As the first is well-studied and the second is almost unknown, hereafter we shall discuss systematically the formal-axiological semantics dealing with formal-axiological meanings (let M₂ stand for these meanings) of words and word-combinations of the natural language. (Let, respectively, M₁ stand for the descriptive-indicative meanings of the natural one.)

The present paper is aimed at explicating universal and immutable laws of the world of pure values. However many humans believe that universal and immutable laws of the world of pure values do not exist. The overwhelming majority believes that being of such formal-axiological laws is impossible as values and assessments are necessarily relative and undergo permanent change.

Many humans believe that any relativism is incompatible with objective knowledge. In particular, they think that if moral evaluations of concrete contents of moral actions (and agents) are relative to evaluators, then objective moral laws (=necessarily universal and immutable positive-moral-evaluations of actions) do not exist as they are impossible on principle. However, in my opinion, objective knowledge is compatible with some forms of relativism [13]. For instance, it is compatible with a relative relativism, i.e. such relativism, which is not an absolute one.

This general statement may be exemplified by the relativistic physics. In the special-relativity-theory it is demonstrated that (if x is a physical body then) mass of x, length of x, time of x are necessarily relative: they necessarily depend upon that physical systems, in relation to which they are measured; measuring in relation to different systems gives different results. Nevertheless there are some physical qualities, which invariantly exist in relation to all physical systems. These invariant physical qualities are considered as objective laws of the special-relativity-theory.
Thus physics has made a precedent to be applied to analogous cases. The situation in relativistic ethics is analogous to the one in relativistic physics. Therefore the experience of creating relativistic physics is heuristically important for creating relativistic ethics as a system of objective knowledge of absolute laws of the moral-value-relativity [11; 13].

The special-relativity-theory was precisely formulated and developed by means of the mathematical language. It was impossible to create and develop this theory by means of the natural language. In formal ethics the situation is analogous to the one in physics. It is impossible to create and develop a theory of relativity of moral evaluations (as a system of absolute laws of their relativity) at the level of natural language. For departing from the old-fashioned absolute-moral-relativism to precise mathematical formulations of absolute formal-ethical laws of moral-evaluation-relativity [11; 13], it is necessary to construct an artificial language of formal ethics for investigating a mathematical model of the system of moral evaluations of actions and agents. Hereafter let us start constructing the artificial language and the mathematical model.

Below the possibility of mathematical representation of moral activity is demonstrated by the elementary mathematical ethics — two-valued algebra of good and evil [11; 13]. This algebra is based upon the set of acts. By definition, acts are such and only such operations which are either-good-or-bad ones in the moral meaning of the words “good” and “bad”. Algebraic operations defined on the set of acts are moral-evaluation-functions. Moral-evaluation-variables of these functions take their values from the set \{g, b\}. Here the symbols “g” and “b” stand for the moral values of acts “good” and “bad” respectively. The functions take their values from the same set. The symbols: “x” and “y” stand for moral-forms of acts. Elementary moral-act-forms deprived of their contents are independent moral-evaluation-variables. Compound moral-act-forms deprived of their contents are moral-evaluation-functions determined by these variables.

Let symbol \(\Sigma\) stand for the moral evaluator, i.e. that person, in relation to which all evaluations are generated. In the moral-evaluation-relativity theory, \(\Sigma\) is a variable: changing values of the variable \(\Sigma\) can result in changing moral evaluations of concrete acts and agents. However if a value of the variable \(\Sigma\) is fixed, then moral evaluations of concrete acts and agents are definite.

**DEFINITION DF-1** (of invariant law of moral-relativity theory): in two-valued algebra of formal ethics, a moral-evaluation-function is called formally-ethically (or invariantly) good one, if and only if it acquires the moral value \(g\) (good) under any possible combination of moral values of its variables.

**DEFINITION DF-2** (of formal-ethical contradiction): in two-valued algebra of formal ethics, a moral-evaluation-function is called formally-ethically (or invariantly) bad one, if and only if it acquires the moral value \(b\) (bad) under any possible combination of moral values of its variables.

**DEFINITION DF-3** (of formal-ethical-equivalence-relation): in two-valued algebra of formal ethics, moral-evaluation-functions \(x\) and \(y\) are formally-ethically equivalent (this is represented by the symbol “\(x=+=y\)”), if and only if they acquire identical moral values (from the set \{g, b\}) under any possible combination of moral values of the variables. In the natural language the equivalence relation “\(x=+=y\)” is represented by the ambiguous word-homonym “is” [11; 12]. Its ambiguity and homonymy was noticed and recognized by many prominent logicians and philosophers including Wittgenstein [22, p. 55]. For adequate understanding the present paper here it is worthy of note that “is” as the
well-known logical connective, and “is” as a linguistic means for representing the relation “x==y” in the natural language, are not synonyms. Hence substituting them for each other is strictly forbidden [12]. Violating this prohibition produces linguistic illusions of logic contradictions with facts.

Taking into account the above-given definitions, one can make an important discovery: the invariant laws of moral-relativity theory do not depend upon possible changes of the moral evaluator Σ. If x is a formal-ethical law, then x is morally good in relation to every moral evaluator Σ.

Moreover, in the moral-relativity theory under review, formal-ethical contradictions of complex moral conduct also do not depend upon possible changes of the moral evaluator Σ. If x is a formal-ethical contradiction, then x is morally bad in relation to every moral evaluator Σ.

Finally, if there is the above-defined formal-ethical equivalence-relation between moral-evaluation-functions x and y, then the functions x and y are formally-ethically equivalent ones in relation to every moral evaluator Σ.

Hence, in spite of the flexibility and relativity of elementary moral evaluations, there are absolute invariants (immutable universal laws) of the moral relativity [11; 13]. Thus the moral relativity is not absolute but relative one.

To exemplify the above-said let us discuss moral-evaluation-functions “proper knowledge (or knowledge proper)”, “alethic (true) faith”, “doubt”, “assumption”, “toleration” and “tolerance” in two-valued algebraic system of formal ethics. To begin discussing these functions let us introduce the symbols standing for them in the artificial language of this algebra and then precisely define formal-axiological meanings of the introduced symbols by means of corresponding tables.

The glossary for the Table 1: The symbol K²xy stands for the moral-evaluation-function “x’s knowing (what, whom) y (in the proper episteme meaning of ‘knowing’)”. A³xy – the evaluation-function “x’s assuming y (as a proper episteme)”. I¹xy – “x’s not-assuming y (as a proper episteme)”. N⁴xy – “x’s not-knowing (what, whom) y. D⁵xy – “y’s being a doxa of (for) x”. D⁶xy – “y’s having a determined epistemic quality for x”. The moral-evaluation-functional sense of these operations is defined by the Table 1.

The glossary for the Table 2: The symbol F³xy stands for moral-evaluation-function “x’s alethic (true) faith (not-revisable belief) in (what, whom) y”. D⁷xy – “x’s alethic doubt (not-removable one) in not-y”. F⁸xy – “x’s true faith (not-revisable belief) in not-y”. D⁹xy – “x’s alethic doubt (not-removable one) in y”. S⁴xy – “x’s alethic (true) skepticism concerning y, i.e. x’s alethic doubt in both: y and not-y”. N⁵xy – “nonbeing of x’s alethic skepticism concerning y”, i.e. “either x’s alethic faith in y”, or “x’s alethic faith in not-y”. The moral-evaluation-functional sense of these operations is defined by the Table 2.

The glossary for the Table 3: The symbol N⁶xy stands for “x’s alethic (true) non-toleration of
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"knowledge" and "faith", hence, they could estimate 1)-6) as paradoxes. However there are only illusions of paradoxes caused by the ambiguity of the natural language. For destroying such illusions of paradoxes in algebra of formal ethics there is a formal principle of autonomy of facts and values, which is precisely formulated as follows.

Let $\beta x$ stand for an act of informing (true or false affirming) that $x$ takes place in reality. Concerning the relationship between $\bowtie$ and "logic equivalence", the principle in question may be formulated as the following rule (A&B):

(A) From the truth of $x \bowtie y$ it does not logically follow that logic equivalence of $\beta x$ and $\beta y$ is true;

(B) From the truth of logic equivalence of $\beta x$ and $\beta y$ it does not logically follow that $x \bowtie y$ is true.

The illusion of paradox concerning equations 1)-6) is destroyed by (A&B). This illusion is a result of not-recognized "jumps" from formal-ethical equivalences of evaluations to formal-logical equivalences of facts (and back from the formal-logical equivalences of facts to the formal-ethical equivalences of evaluations). In algebra of formal ethics such bridging the gap between facts and values is strictly forbidden by (A&B), which is an explication of important particular case of the general principle of mutual formal-logic autonomy of corresponding facts and values (propositions and evaluations). The rule (A&B) can be universalized in the following way. Let us call this generalization "(Y&Z)";

(Y) From $x \bowtie y$ it does not logically follow that $(\beta x \circ \beta y)$;

(Z) From $(\beta x \circ \beta y)$ it does not logically follow that $x \bowtie y$.

Here the symbol "$\circ$" stands for any element of the set of all $\omega$ binary formal logic operations.

As to the unary operations of algebra of formal ethics, the general value-&-fact-autonomy
principle can be precisely formulated as the following rule (U&Q):

U) From $\beta@x$ it does not logically follow that $\beta x$;

Q) From $\beta x$ it does not logically follow that $\beta@x$;

Here the symbol “@” stands for any element of the set of all unary operations of algebra of formal ethics [11; 13; 14].

Now taking into account the above-said let us consider the famous linguistic principle of semantic compositionality of meanings of compound word-combinations [9; 16-21]. According to this compositionality principle, the semantic meaning of a complex phrase is a function determined by meanings of parts of the complex phrase. If parts of the complex phrase are functions determined by meanings of their parts, then the semantic meaning of the complex phrase under consideration is a composition of the functions. Here the terms “function” and “composition of functions” are used in their proper mathematical meanings.

According to algebra of metaphysics considered as algebra of formal axiology [11], in particular, as algebra of formal ethics [13], semantic meanings of words and word-combinations in the natural language of ethics and metaphysics are nothing but moral-evaluation-functions determined by a finite number of moral-evaluation-variables [11-14]. Semantic meanings of compound word-combinations in the natural language of ethics and metaphysics are nothing but compositions of the moral-evaluation-functions which are formal-axiological meanings of the parts of the compound word-combinations under consideration. (Here the terms “function” and “composition of functions” are used in their proper mathematical meanings as well.) It is easy to see that in the language $L_2$ the linguistic principle of semantic compositionality of meanings of compound word-combinations is a very specific one. Let this specific formal-axiological compositionality-principle be called $C-P_2$. Hence, respectively, the linguistic principle of semantic compositionality of meanings of compound word-combinations in the language $L_1$ is to be called $C-P_1$. The functions and compositions of functions implied by the two compositionality principles ($C-P_1$ and $C-P_2$), are significantly different ones. How does the principle $C-P_1$ work? For showing a concrete example of its functioning let us consider the epistemic paradox of George Moore [1; 2; 5; 6; 8; 14]. To do this we need some additional moral-evaluation-functions to be introduced and defined by the below glossaries and tables.

The glossary for the Table 4: The symbol $K_{xy}$ stands for the binary moral-evaluation-function “uniting (conjoining) $x$ and $y$ in a conduct as a whole”. (Here the index 2 indicates that the indexed letter stands for a binary operation.) $T_{xy}$ – the moral-evaluation-function “destruction, termination, annihilation of $x$ by $y$”. $P_{xy}$ – the evaluation-function “preservation, conservation of $x$ by $y$”. $O_{xy}$ – “$y$’s offensive, assault (aggression), attack against $x$”. $D_{xy}$ – “defense of $x$ by $y$”. $V_{xy}$ – “$y$’s violence over (what, whom) $x$”. $J_{xy}$ – “$y$’s nonviolence over (what, whom) $x$”. $U_{xy}$ – “excluding moral choice of the best between $x$ and $y$ (combined with realization of the chosen and non-realization of the not-chosen)”. $A_{xy}$ – “not-excluding moral choice (and realization) of the best among such moral alternatives which can be made by means of $x$ and $y$”. $W_{xy}$ – “uniting (conjoining) non-realization of $x$ and non-realization of $y$ (in a conduct as a whole)”. $E_{xy}$ – “moral identification of $x$ and $y$”, or “morally equalizing $x$ and $y$”. $C_{xy}$ – “realizing $y$ in response to realization of $x$”. $X_{xy}$ – “$y$’s contradiction to (what, whom) $x$”.

The glossary for the Table 5: The symbol $N_x$ stands for the unary moral-evaluation-function

Using the above-given definitions one can substantiate the following equation of two-valued algebra of formal ethics.

8) $K_{2Kxy}T_{2xy}P_{2xy}O_{2xy}D_{2xy}V_{2xy}J_{2xy}U_{2xy}A_{2xy}W_{2xy}E_{2xy}C_{2xy}X_{2xy}$

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Table 5: Unary moral operations in two-valued algebra of formal ethics

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The discrete mathematical models (of moral and metaphysical principles) considered in this paper are interesting not only from an abstract philosophical theory viewpoint, but also from the ones of theology and philosophy of religion, ethics (philosophy of morals), legal philosophy of the natural law, criminology (philosophy of crime), psychology, and even psychiatry. Important practical work aimed at prevention
of committing suicides unites all the mentioned disciplines in one activity and necessarily links them with the abstract fundamental investigation undertaken in this paper.

References


Два мира, два языка, две семантики,
два лингвистических принципа композиционности
и два вида бессмыслицы
(Критика философии Винтгенштейна
о морали и метафизике
с использованием дискретного
математического моделирования
формально-этического аспекта его точки зрения)
взаимоисключающими и взаимодополняющими. Первые схожие элементы относятся к миру «Трактата». Вторые схожие элементы относятся к миру чистых значений, мир которых трансцендентен по отношению к миру «Трактата». Целью данной работы является толкование и точное табличное определение формально-аксиологических значений слов и составных словосочетаний естественного языка морали и метафизики. Автор отмечает, что в соответствии с представленным (новым) формально-аксиологическим принципом лингвистической композиционности (значений), формально-аксиологическим значением составного словосочетания (естественного языка морали и метафизики) выступает состав морально-оценочных функций, являющихся формально-аксиологическими значениями составных частей словосочетания. Идея вычисления формально-аксиологических смыслов составных словосочетаний (языка морали и метафизики) иллюстрируется представленным дискурсом соответствующих знаний, алетической веры и алетической толерантности. В алгебраической системе формальной этики дано точное определение соотношения формально-этической эквивалентности между морально-оценочными функциями. Формально-этические уравнения создаются посредством вычисления соответствующих морально-оценочных таблиц. В качестве иллюстрирующих примеров приводятся уравнения, связывающие морально-оценочные функции «знание», «допущение», «вера» и «сомнение».

Ключевые слова: мир, язык, формальный, логика, этика, алгебра формальной этики, семантика, лингвистический принцип композиционности, морально-оценочная функция, аксиологический, значение, бессмыслица.

Научная специальность: 09.00.00 – философские науки.