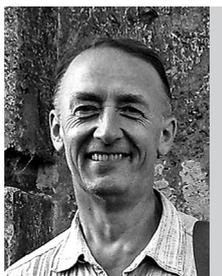


## БЫТИЕ БОГА ВО ВСЕМ КАК ФОРМАЛЬНО-АКСИОЛОГИЧЕСКИЙ ЗАКОН, ОБОСНОВАННЫЙ ВЫЧИСЛЕНИЕМ ЦЕННОСТНЫХ ФУНКЦИЙ В ДВУЗНАЧНОЙ АЛГЕБРЕ МЕТАФИЗИКИ КАК ФОРМАЛЬНОЙ АКСИОЛОГИИ



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*Статья поступила в редакцию 20.02.2020, принята к публикации 14.08.2020*

**Для цитирования:** Лобовиков В.О. Бытие Бога во всем как формально-аксиологический закон, обоснованный вычислением ценностных функций в двузначной алгебре метафизики как формальной аксиологии // Научный журнал «Дискурс-Пи». 2020. № 3 (40). С. 171–185. doi: 10.24411/1817-9568-2020-10311

### Аннотация

Объект исследования – проблема существования Бога во всем. Предмет исследования – *формально-аксиологический аспект* этой проблемы. *Цель исследования* – обоснование формально-аксиологического закона вездесущности Бога в двузначной алгебре метафизики как формальной аксиологии. *Метод исследования* – математическое моделирование предмета исследования. *Научная новизна* полученных результатов: в статье представлена вплоть до настоящего времени не рассмотренная дискретная математическая модель философско-теологической проблемы вездесущности Бога. На уровне искусственного языка двузначной алгебры формальной аксиологии предложен и детально разработан *принципиально новый* вариант эффективного решения обсуждаемой проблемы. Таким образом,

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качественно *новый метод* аналитической теологии, а именно преднамеренное конструирование и систематическое исследование дискретных математических моделей божественных атрибутов, применяется для освещения сложных аспектов философской теологии. Плодотворность (эвристическая и педагогическая ценность) использования упомянутого метода математической теологии демонстрируется на конкретном примере путем приложения его к прояснению и устранению возражений против бытия Бога во всем, которые (возражения) изобретались атеистически и скептически настроенными философами с античности до наших дней. *Впервые* в литературе по философской теологии существование Бога во всем обосновывается как формально-аксиологический закон аккуратным вычислением релевантных ценностных таблиц в двузначной алгебре формальной аксиологии. В отношении к чисто техническому аспекту математики как таковой, предложенное обоснование обсуждаемого формально-аксиологического закона элементарно, но с точки зрения содержательной философской теологии обоснование формально-аксиологического закона вездесущности Бога путем вычисления релевантных композиций ценностных функций в двузначной алгебре формальной аксиологии является психологически неожиданным и теоретически нетривиальным.

Ключевые слова:

двузначная-алгебра-метафизики-как-формальной-аксиологии, моральная, ценность, ценностная-переменная, ценностная-функция, бытие-s-v-w, вездесущность-Бога, формально-аксиологический-закон.

UDC 16+2+17+51-7+512

DOI: 10.24411/1817-9568-2020-10311

## **OMNIPRESENCE OF GOD PROVED AS A FORMAL-AXIOLOGICAL LAW BY COMPUTING EVALUATION- FUNCTIONS IN TWO-VALUED ALGEBRA OF METAPHYSICS AS FORMAL AXIOLOGY\***

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\* This article is the first printed publication of the author's complete paper presented orally at the 2<sup>nd</sup> World Congress on Logic and Religion, Warsaw, June 18-22, 2017, Institute of Philosophy of the University of Warsaw

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**To cite this article:** Lobovikov V.O. (2020). Omnipresence of God Proved as a formal-axiological law by computing evaluation-functions in two-valued algebra of metaphysics as formal axiology. *Scientific Journal "Discourse-P"*, 3(40), 171–185. doi: 10.24411/1817-9568-2020-10311

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## Abstract

The object of investigation – the problem of omnipresence of God. The subject-matter of investigation is a *formal-axiological aspect* of the problem. The *aim of investigation* – a proof of formal-axiological law of omnipresence of God in two-valued algebra of metaphysics as formal axiology. The *method of investigation* is mathematical modeling the subject-matter of investigation. The *scientific novelty of results*: the paper submits a *hitherto never considered* discrete mathematical model of the philosophical-theology problem of omnipresence of God. At the level of artificial language of two-valued algebra of formal axiology a *substantially novel* option of effective solving the problem is suggested and elaborated. Thus, a significantly *new method* of analytical theology, namely, intentional constructing and systematical investigating discrete mathematical models of divine attributes, is applied for illuminating complicated aspects of philosophical theology. In this paper the fruitfulness (heuristic and pedagogic value) of using the mathematical-theology method is exemplified by applying it for clarifying and eliminating the empirical objections against omnipresence-of-God which objections have been invented by the atheism-or-skepticism-minded philosophers since ancient times to nowadays. *For the first time* in the literature devoted to philosophical theology God's omnipresence is demonstrated as a formal-axiological-law by accurate computing relevant evaluation-tables in two-valued algebra of formal-axiology. In relation to the purely technical aspect of mathematics proper the submitted demonstration of the formal-axiological-law under consideration is very simple but from the content viewpoint of philosophical theology, proving God's-omnipresence-as-a-formal-axiological-law by computing relevant compositions of evaluation-functions in algebra under consideration is psychologically surprising and theoretically nontrivial.

## Keywords:

two-valued-algebra-of-metaphysics-as-formal-axiology, moral, value, evaluation-variable, evaluation-function, being-of-s-in-w, omnipresence-of-God, formal-axiological-law.

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Although in speaking of him we say that God is everywhere present, we must resist carnal ideas and withdraw our mind from our bodily senses, and not imagine that God is distributed through all things by a sort of extension of size, as earth or water or air or light are distributed.

*Letter 187, Ch. 2 (Augustine, 1953)*

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...God is in every place, and this is to be everywhere. First, as He is in all things as giving them being, power, and operation, so he is in every place as giving it being and power to be in a place. Again, things placed are in place in so far as they fill a place: and God fills every place; not, indeed, as a body, for a body is said to fill place so far as it excludes the presence of another body; but by God being in a place, others are not thereby excluded from it... It is necessary to say that God is in all things by His presence.

“Summa Theologica”. Part I. Question 8. Article 3. (Aquinas, 1994)

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Prop. 15. Whatever is, is in God, and nothing can either be or be conceived without God...

“Ethics” (Spinoza, 1994, p. 594)

## Introduction

The philosophical-theology problem of God’s omnipresence (and of everything’s being in God) has been a hard puzzle since ancient times to early modern ones (Augustine, 1953, 1994), (Anselm, 1998), (Aquinas, 1975, 1994), (Descartes, 1985), (Spinoza, 1994), (Malebranche, 1997), (Leibniz, 1989, 1996), (Newton, 1962, 1994), et al. Today there are plenty of profound studies concerning this problem (Brom, 1984, 1993), (Everitt, 2010), (Futch, 2008), (Geisler, 2003), (Grabowski, 1954), (Hartshorne, 1941), (Hudson, 2009), (Inman, 2016), (Leftow, 1989), (Oakes, 2006), (Pruss, 2013), (Stump, 2008, 2011, 2013), (Wainwright, 2010), (Wierenga, 1988, 1989, 2010, 2015), et al. Therefore, publishing a new paper on this theme is justified if and only if it does submit a substantially new nontrivial investigation option missed by other researchers. In my opinion submitting the present article is just the case. Usually the authors operate with the perplexities appearing at the level of proper logic semantics of the natural language used in discussing the enigma of God’s omnipresence. But in contrast with Augustine times today among analytical philosophers it is well-recognized that there are no formal logic interrelations between corresponding facts and contingent values (relative evaluations). However even today in spite of the principle of logic autonomy of facts and contingent values many humans continue using *empirical* terms of everyday-life (or of *science*, for instance, of physics) while discussing statements of being (or non-being), possibility (or impossibility) of God’s omnipresence, although the *empirical* terms are not adequate to the case of precise pondering over divine questions *necessarily* possessing *formal-axiological* aspects in general and formal-ethical ones in particular.

In formal-logic relation, corresponding facts and relative (contingent) values are separated. This separation is established by D. Hume’s guillotine (2000) and G.E. Moore’s doctrine of the naturalistic fallacies in ethics (1903). But God’s being is *necessary*, hence, statement of His being is not a fact, because, by definition, fact is a *contingent* truth (Leibniz, 1903, 1952, 1989, 1996; Carnap, 1956) while statement of His being is a *necessary* truth. Moreover, God’s positive moral value is not relative (contingent): His goodness is absolute; God is not contingently but necessarily good. Consequently, Hume (1998, 2000) and Moore (1903) *empirical* doctrines

of human nature and morals are not relevant to theology as God's nature and moral value differs much from human one. Is statement of *necessary* being separated logically from corresponding statement of *necessary* goodness? – the question is non-trivial and worth investigating. It has not been studied hitherto (Hume, for instance, was busy with *empirical* considerations of *facts* and *contingent moral evaluations* exclusively). In logical positivism of XX century, such disciplines as metaphysics, axiology and theology were labeled senseless: special terms and specific sentences of these disciplines were treated as meaningless combinations of letters (Carnap, 1931). The world was considered as *totality of facts* and the language isomorphic to that world was considered as possessing only *descriptive-indicative* semantics (Wittgenstein, 1992). Existence and importance of a *formal-axiological* semantics of the natural language was not recognized by logical positivists on principle, and this not-recognizing continues even up to the present time. Unfortunately, a *structural-functional* aspect of the *formal-axiological* semantics of the natural language has missed its mathematical modeling. In particular, while discussing God's omnipresence *statements of positive value* of the omnipresence are presumed as something quite obvious for the believers but these statements do not undergo a systematical *formal-axiological* analysis using artificial language of discrete mathematics which could help to solve the knotty logic-linguistic problem of existence and of possibility of the divine attribute in question.

Therefore, the present article is targeted at submitting an option of filling in the indicated blank in the logic-linguistic literature and in the philosophical-theology one. To make the article perfectly understandable first of all it is indispensable to introduce, precisely to define, and to exemplify the minimal set of basic definitions necessary and sufficient for strict demonstrating that God's omnipresence is a *formal-axiological-law* of the two-valued *algebraic system of metaphysics understood as formal axiology*. Hence let us introduce the new conceptual apparatus (novel terms) systematically to be used below for constructing the proof.

**1. A two-valued algebraic system of metaphysics as formal-axiology: such a set of basic definitions which is necessary and sufficient for demonstrating effectively that God's omnipresence is a formal-axiological law in that algebraic system**

First of all, let us fix the meaning of the word "metaphysics". In this paper I elaborate further the opinion that, *in its essence, metaphysics is nothing but formal axiology* dealing with *abstract value forms* exclusively (Lobovikov, 2007). Therefore, the metaphysics dealing with the totality of abstract value-forms (and only value-forms) has nothing to do with the science dealing with the totality of facts and only facts. Hence according to the principle of logic-separation-of-facts-and-values, the metaphysics and the empirical science (in their essence) are logically independent: a logic contradiction between them is impossible; the notorious conflict between them is a logic-linguistic confusion. This somewhat not-traditional *formal-axiological view of metaphysics* has been submitted and elaborated systematically in a set of my books and papers, for instance, (Lobovikov, 2007, 2009, 2011, 2014, 2018, 2019). In this article I submit nontrivial developing further the analytical metaphysics as formal axiology equipped with discrete mathematics by applying it systematically to the religious studies of God's omnipresence. I believe that such psychologically surprising

mathematical modeling can help effectively to eliminate some of the difficulties and convincingly to answer some of the questions related to the theme.

The paper consists of two parts: (1) systematical presenting a set of already published basic definitions, conventions, etc. making up the foundation (language, method, apparatus) for an unknown discrete-mathematical (algebraic) demonstration of *formal-axiological law of God's omnipresence*, and (2) constructing and discussing the unknown demonstration.

The here-used two-valued algebraic system of metaphysics is the triple  $\langle D, \Omega, R \rangle$  in which  $D$  stands for the set of all such and only such *either-existing-or-not-existing things* which are *either good or bad* ones in relation to an evaluator  $\Sigma$ . The symbol  $\Sigma$  stands for a person (individual or collective one – it does not matter), in relation to which all evaluations are generated. Obviously,  $\Sigma$  is a *variable*: changing values of the variable  $\Sigma$  can result in changing evaluations of concrete elements of  $D$ . However, if a value of the variable  $\Sigma$  is fixed, then evaluations of concrete elements of  $D$  are quite definite. Elements of  $D$  are called *formal-axiological-objects* of metaphysics. Elements of the set  $\{g$  (good),  $b$  (bad) $\}$  are called *abstract formal-axiological values* of elements of  $D$ . Moral or legal *acts or persons* (individual or collective – it does not matter) are *concrete examples (particular cases)* of elements of  $D$ . In the above-mentioned triple the symbol  $\Omega$  stands for the set of all *n-ary algebraic operations* defined on the set  $D$ . (These algebraic operations are called *formal-axiological* ones.) In the indicated triple the symbol  $R$  stands for the set of all *n-ary formal-axiological relations* defined on the set  $D$ . (For example, the below-defined “*formal-axiological equivalence*” and “*formal-axiological entailment*” belong to  $R$ .)

Algebraic operations (defined on the set  $D$ ) are *abstract evaluation-functions*. *Abstract evaluation-variables* of these functions take their values from the set  $\{g, b\}$ . Here the symbols “ $g$ ” and “ $b$ ” stand for the abstract values “good” and “bad”, respectively. The functions take their values from the same set.

Speaking of evaluation-functions I mean the following mappings (in the proper mathematical meaning of the word “mapping”):

$\{g, b\} \rightarrow \{g, b\}$ , if one speaks of the evaluation-functions determined by *one* evaluation-argument;

$\{g, b\} \times \{g, b\} \rightarrow \{g, b\}$ , where “ $\times$ ” stands for the Cartesian product of sets, if one speaks of the evaluation-functions determined by *two* evaluation-arguments;

$\{g, b\}^N \rightarrow \{g, b\}$ , if one speaks of the evaluation-functions determined by  $N$  evaluation-arguments, where  $N$  is a finite positive integer.

The symbols: “ $x$ ” and “ $y$ ” stand for *abstract-value-forms* of elements of  $D$ . (Moral-legal-value-forms of actions and persons are *specific examples* (particular cases) of *abstract-value-forms* of elements of  $D$ .) Elementary abstract-value-forms deprived of their contents represent independent evaluation-arguments. Compound abstract-value-forms deprived of their contents represent evaluation-functions determined by these arguments. Below let us consider some concrete examples of mathematically elementary evaluation-functions immediately related to the theme of this article. Let us start with the functions determined by *one* evaluation-argument. (Here the lower number-index 1 standing immediately after a capital letter informs that the indexed letter stands for a function determined by *one* argument.)

The *glossary* for the below-submitted evaluation-table 1: Let the symbol  $B_x$  stand for the evaluation-function “*being (existence), life of (what, whom) x*”.  $N_x$  stands for

the evaluation-function “*non-being (nonexistence), death of (what, whom) x*”.  $G_x$  stands for the evaluation-function “*God of (what, whom) x in monotheistic world religion*”.  $I_x$  stands for the evaluation-function “*god<sup>1</sup> of (what, whom) x in polytheistic local (pagan, heathen) religion*”.  $D_x$  means the evaluation-function “*daemon of x in polytheistic local (pagan, heathen) religion*”.  $A_x$  – “*Anti-God (God’s Enemy) of (what, whom) x in monotheistic world religion*”.  $Z_x$  means the evaluation-function “*thing (what, who) x*”.  $P_x$  means the evaluation-function “*place, space of (what, whom) x*”.  $T_x$  – “*time of (what, whom) x*”.  $U_x$  – “*x’s being unmovable, unchangeable*”, or “*immovability, immutability of (what, whom) x*”.  $M_x$  – “*matter, material (what, who) x*” or “*materialness of (what, whom) x*”. Initially, such table-definition of the functions  $G_x, I_x, D_x, A_x$  was published in (Lobovikov, 2015) and then used in (Lobovikov, 2017, 2018, 2019).

Table 1 – The functions determined by one argument

$x$	$B_x$	$N_x$	$G_x$	$I_x$	$D_x$	$A_x$	$Z_x$	$P_x$	$T_x$	$U_x$	$M_x$
g	g	b	g	g	b	b	g	g	g	g	b
b	b	g	g	b	g	b	b	b	b	b	g

The glossary for the below-submitted evaluation-table 2:  $F_x$  – “*finite, definite, limited (what, who) x*” or “*finiteness, definiteness, limitedness of (what, whom) x*”.  $J_x$  – “*infinite, indefinite, unlimited (what, who) x*” or “*infiniteness, indefiniteness of (what, whom) x*”.  $L_x$  – “*necessity of (what, whom) x*”.  $O_x$  – “*one-ness of (what, whom) x*”.  $S_x$  – “*simplicity of (what, whom) x*”.  $C_x$  – “*complexity, compound-ness of (what, whom) x*”.  $Y_x$  – “*x’s being empirically (sensually) not-cognizable*”, i.e. “*imperceptibility (impalpability, intangibility, invisibility) of (what, whom) x*”.  $W_x$  – “*x’s self-termination (self-annihilation), suicide*”.  $X_x$  – “*x’s self-preservation (self-conservation), self-defense*”,  $V_x$  – “*doubt in (what, whom) x*”.  $Q_x$  – “*belief (faith, trust) in (what, whom) x*”. The introduced functions are defined by the following table 2.

Table 2 – Continuing and finishing the previous table

$x$	$F_x$	$J_x$	$L_x$	$O_x$	$S_x$	$C_x$	$Y_x$	$W_x$	$X_x$	$V_x$	$Q_x$
g	b	g	g	g	g	b	g	b	g	b	g
b	g	b	b	b	b	g	b	b	g	g	b

<sup>1</sup> In the glossary for the table 1, in one sentence the word “God” starts with the capital letter “G” but in another sentence the word “god” starts with the small letter “g”. Here it is worth emphasizing that this is not a mistake by negligence: this is implemented on principle. The deliberately implemented difference indicates to the important difference of formal-axiological meanings of the word in *monotheistic world religions* and *polytheistic local (pagan, heathen) ones*. It is easy to see the significant difference between the two formal-axiological meanings of the word, i.e. between the two value-functions  $G_x$  and  $I_x$ , by attentive comparing their tabular definitions (see the table 1).

The *glossary* for the below-submitted evaluation-table 3: (Here the lower number-index 2 standing immediately after a capital letter informs that the indexed letter stands for a function determined by two variables.) Let the symbol  $K_{xy}$  stand for the evaluation-function “*x*’s being with *y*” or “*x*’s and *y*’s being together”, or “*joint being of x and y*. The symbol  $Z_{xy}$  stands for the evaluation-function “*y*’s being without *x*”. The symbol  $E_{xy}$  stands for the evaluation-function “*axiological equivalence (identity of values) of x and y*”.  $C_{xy}$  stands for the evaluation-function “*being, presence of y in x*”.  $T_{xy}$  – “*termination (annihilation) of x by y*”. These functions are defined by the following table 3. Also, one can find tabular definitions of these functions in (Lobovikov, 2007, 2009, 2011, 2018, 2019).

Table 3 – The functions determined by two arguments

#	x	y	$K_{xy}$	$Z_{xy}$	$K_{N_1xy}$	$K_{N_2yx}$	$Z_{yx}$	$E_{xy}$	$C_{xy}$	$C_{yx}$	$T_{xy}$
1	g	g	g	b	b	b	b	g	g	g	b
2	g	b	b	b	b	g	g	b	b	g	b
3	b	g	b	g	g	b	b	b	g	b	g
4	b	b	b	b	b	b	b	g	g	g	b

Definition 1 (of *formal-axiological-equivalence-relation*): in two-valued algebraic system of metaphysics as formal axiology, evaluation-functions (=abstract axiological forms)  $\Omega$  and  $\Psi$  are *formally-axiologically equivalent* (hereafter this is represented by the symbol “ $\Psi=+=\Omega$ ”), if and only if they acquire identical values (from the set {*g* (*good*), *b* (*bad*)}) under any possible combination of values of their evaluation-variables.

Definition 2 (of *formal-axiological law*): in two-valued algebra of metaphysics as formal axiology, an evaluation-function (abstract axiological form) is called *formally-axiologically (or invariantly, or absolutely) good one* (or a *formal-axiological law* of algebra of metaphysics), if and only if it acquires the value *g* (*good*) under any possible combination of values of its variables.

Definition 3 (of *formal-axiological contradiction*): in two-valued algebra of formal axiology, an evaluation-function is called *formally-axiologically (or invariantly, or absolutely) bad one*, or a *formal-axiological contradiction*, if and only if it acquires the value *b* (*bad*) under any possible combination of values of its variables.

In respect to the above-given definition-1 it is worth mentioning and emphasizing that in the ambiguous natural language the relation “ $\Psi=+=\Phi$ ” is represented by the words-homonyms “is”, “means”, “implies”, “entails”, “equivalence” (They may stand for the *formal-axiological equivalence relation “=+=”*). As in the ordinary natural language the words “is”, “means”, “implies”, “equivalence”, etc. also may stand for the logical operations “equivalence” and “implication”, there is a real possibility of confusions produced by absolute identifying and, hence, substituting for each other the substantially different notions “=+=” and logical operation “equivalence” (or “=+=” and logical operation “implication”). Such mixing and substituting are strictly forbidden in the above-defined algebra of metaphysics as formal axiology. Ignoring this ban indispensably leads to paradoxical results.

Taking into an account the above-given definitions, one can make an important discovery: the *invariant laws* (formal-axiological ones) of abstract evaluation-relativity theory do not depend upon possible changes of evaluator  $\Sigma$ . If  $\Psi$  is a formal-axiological law, then  $\Psi$  is good in relation to every evaluator  $\Sigma$ .

Moreover, in the abstract evaluation-relativity theory under application, *formal-axiological contradictions* also do not depend upon possible changes of the evaluator  $\Sigma$ . If  $\Psi$  is a formal-axiological contradiction, then  $\Psi$  is bad in relation to every evaluator  $\Sigma$ .

Finally, if there is the above-defined *formal-axiological equivalence* relation between evaluation-functions  $\Psi$  and  $\Phi$ , then the functions  $\Psi$  and  $\Phi$  are *formally-axiologically equivalent* ones in relation to every evaluator  $\Sigma$ .

Hence, in spite of the evident flexibility and obvious relativity of *empirical* evaluations, there are *absolute invariants* (immutable universal laws) of the evaluation relativity. Thus, the evaluation relativity is not an absolutely unsolvable problem as the relativity is not absolute but relative one.

Concerning the above-said there is one more theme worthy of mentioning. From the purely mathematical point of view in the two-valued algebra of metaphysics there are 4 (and only 4) mathematically different *unary formal-axiological operations* (two mutually opposite constant-functions and two mutually opposite not-constant-functions). However, in this paper I deal with more than 4 different unary formal-axiological operations. This is so because their difference is not purely mathematical one: it comes from the field of application of the mathematical apparatus, namely, from the contents of metaphysics as abstract-value-form theory. Hence the more-than-four-element-set of unary formal-axiological operations considered in this paper is divided into four subsets and in each of the four subsets any elements are formally-axiologically equivalent to each other. Thus, there is no inconsistency.

Now the preparatory work is finished: the set of basic definitions necessary and sufficient for constructing the above-promised proof (of God-omnipresence as the formal-axiological-law of the algebraic system) is already presented. Therefore, let us start proving by computing.

## 2. Demonstrating the Formal-Axiological-Law of God's Omnipresence by Computing Relevant Evaluation-Functions and Systematical Using the Above-Given Definitions

First of all, let us concentrate attention on the fact that (according to the above-given table 1) it is true that  $G_1x=+=g$ . Then keeping in mind (or attentively looking at) the above-given tables 1–3, let us begin accurate computing relevant compositions of evaluation-functions. By computing relevant tables, it is easy to obtain the following formal-axiological equations. The reader is invited to examine autonomously all the below-listed equations step by step for becoming convinced that they are true. (To the right after each equation immediately after the colon, a translation from the artificial language into the natural one is placed.)

- 1)  $B_y=+=K_2yG_1x$ : (y's being) is y's being with God (Spinoza, 1994, p. 594).
- 2)  $B_y=+=C_2G_1xy$ : (y's being) is y's being in God.
- 3)  $K_2yG_1x=+=C_2G_1xy$ : (y's being with God) and (y's being in God) are formally-axiologically equivalent.

4)  $E_2K_2yG_1xC_2G_1xy=+=g$ : the axiological equivalence of (y's being with God) and (y's being in God) is a formal-axiological law (of algebra of metaphysics).

5)  $E_2B_1yK_2yG_1x=+=g$ : the axiological equivalence of (y's being) and (y's being with God) is a formal-axiological law (of algebra of metaphysics).

6)  $E_2B_1yC_2G_1xy=+=g$ : the axiological equivalence of (y's being) and (y's being in God) is a formal-axiological law.

7)  $K_2B_1yN_1K_2yG_1x=+=b$ : ((y's being) but nonbeing with God) is a formal-axiological contradiction (in algebra of metaphysics).

8)  $K_2B_1yN_1C_2G_1xy=+=b$ : ((y's being) but nonbeing in God) is a formal-axiological contradiction.

9)  $K_2C_2G_1xyN_1K_2yG_1x=+=b$ : ((y's being in God) but not with God) is a formal-axiological contradiction.

10)  $C_2xG_1y=+=g$ : God's being in every  $x$  is a formal-axiological law (of algebra of metaphysics).

11)  $C_2Z_1xG_1y=+=g$ : God's being in (every) thing  $x$  is a formal-axiological law (of algebra of metaphysics).

12)  $C_2P_1xG_1y=+=g$ : God's being in place of every  $x$  (i. e. in any  $x$ 's place) is a formal-axiological law (of algebra of metaphysics).

13)  $C_2T_1xG_1y=+=g$ : God's being in time of every  $x$  (i. e. in any  $x$ 's time) is a formal-axiological law.

Hence in the above-formulated two-valued algebraic system of metaphysics (=formal axiology) there is a *formal-axiological-law* according to which *it is absolutely good that God is everywhere, at any time, in everything*.

Thus, effectively constructing the demonstration (by computing compositions of relevant evaluation-functions) is finished. Here you are. From the purely mathematical technical viewpoint the submitted demonstration (by calculation of tables) is surprisingly elementary, but I think that from the conceptual metaphysical viewpoint it is quite nontrivial, and also, I believe that it is very important for further development of contemporary analytical theology. In any way it is worth recognizing that accepting all the above-given materially nontrivial definitions *necessarily* results in accepting God's omnipresence as the *formal-axiological law of algebra of metaphysics*.

His omnipresence is not the only *law of algebra of formal axiology* important for mathematical theology as a logically consistent system of the laws. According to the following equation 14, also *existence of God is the formal-axiological law*.

14)  $B_1G_1x=+=g$ : God's existence – a law of algebra of metaphysics.

Moreover, according to the following equation 15, necessity of God's existence is also the law of this algebra.

15)  $L_1B_1G_1x=+=g$ .

Let us continue generating the list of equations interesting for theology.

16)  $J_1G_1x=+=g$ : God's infinity (indefiniteness) – a formal-axiological law as well.

The below equations 17 and 18 mathematically model the religious tenets of immovability and immaterialness of God, respectively.

17)  $U_1G_1x=+=g$ : God's immutability – a law in the algebraic model of metaphysics.

18)  $N_1M_1G_1x=+=g$ : God's immaterialness – a law of algebra of metaphysics.

The below equations 19 and 20 mathematically model the theological tenets of necessity and one-ness of God, respectively.

19)  $L_1 G_1 x = + = g$ : God's necessity – a metaphysical law in algebra under review.

20)  $O_1 G_1 x = + = g$ : God's one-ness – a law in the algebraic model of metaphysics.

The below equations 21 and 22 mathematically represent the theological statements of God's simplicity and of impossibility of His being an object of empirical knowledge (sensual perception), respectively.

21)  $S_1 G_1 x = + = g$ : God's simplicity – a law of algebra of metaphysics.

22)  $Y_1 G_1 x = + = g$ : impossibility of empirical cognizing God (impossibility of having a sensation of Him) – a law of algebra of metaphysics.

23)  $Q_1 G_1 x = + = g$ : belief (faith, trust) in God of  $x$  is – a law of algebra of metaphysics.

24)  $X_1 x = + = g$ : self-protection (self-conservation) of  $x$  is a law of algebra of metaphysics.

25)  $Q_1 G_1 x = + = X_1 x$ : belief (faith, trust) in God of  $x$  is equivalent to self-protection (self-conservation) of  $x$ .

In my opinion the above discourse systematically exploiting elementary notions and methods of discrete mathematics for explicating difficult or problematic aspects of theology is comprehensible for everybody who has not forgotten the basic mathematical concepts and skills obtained in ordinary high school. Possessing the desire and spare time such readers can (and are invited to) examine each of the above-listed equations themselves.

However, I recognize that it is quite natural to expect that statistically-normal human creatures (typical laymen) equipped with commonsense, formal logic, and empirical knowledge of facts can generate a lot of alleged objections against the above-generated seemingly paradoxical equations 1–25. Also in my opinion it is quite natural that, in fact, today very many of such objections are already invented, published, and discussed in the relevant theological-philosophical literature starting with Augustine (1953, 1994), Anselm (1998), Aquinas (1975, 1994), and finishing with contemporary publications by Brom (1984, 1993), Hartshorne (1941), Swinburne (1977), Wierenga (1988, 1989, 2010, 2015), et al.

Nevertheless, I think that very often the so-called refutations of God's omnipresence are not proper refutations but illusions of the ones naturally produced by the ambiguity and homonymy of the words "is", "means", "implies", "entails", "equivalence", "inconsistency", etc. in the natural language. I think so because very often the refutation options invented (artificially constructed on purpose) and submitted by the sophisticated critics contain a well-camouflaged and hence not-recognized violation of the principle of logic autonomy of values (evaluations) and facts. According to this principle it is strictly forbidden to make up a formal logic inference from *purely evaluative* statements to *purely factual* (contingent) ones and conversely. Generally speaking, it is not logical to go from *empirical* "what is (contingently)" to "what is good" and from "what is good" to *empirical* "what is (contingently)". In general, the gap is unbridgeable by means of formal logic-inference rules. Forbidden attempts to bridge up this gap by logic-inferences generate various paradoxes which could be dissolved by systematical using the logic-autonomy principle. In accordance with this principle the above equations 1–25 *only seem* paradoxical from the *empiri-*

cal viewpoint because they are not logic connections of *empirical* statements about facts (*contingent truths*) but *a-priori formal-axiological* statements about formal-axiological relations between evaluation-functions.

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