Foundations of Eusophy
A Mathematical Concept of God for the Reconciliation of Religion and Science

© **Kensaku Gomi***
mathpsy@nifty.com

Ever-Growing WWW Publication
https://gomikensaku.github.io/homepage/
Last updated February 22, 2026†

Preface

I have been engaged in noology, i.e. the science of intellectual phenomena [1][2] since 1992 [3]. God unexpectedly came into its scope on Christmas Day 2012 when the *Gospel of John* led me to read the *Wisdom of Solomon.* This paper is a result of occasional thoughts on God since then. Not following yet considering tradition, I present a general concept of God, show that it is favorable to science and reinforce it with a mathematical model. I would thus initiate mathematical theology and contribute to promoting harmony among religion, ethics, logic and science for what I call eusophy, i.e. pursuit of human omniscience for survival of the human species in evolution. The key to this is the concept of causality, i.e. the cause-effect relation on the events in the universe. Indeed, even religion does not necessarily have God or gods, but is essentially a system of speculations and prayers, both on causality, and the acceptance of their outcomes.

1 Why mathematical noology matters

Know thyself, and thou shalt know the universe and God

God may be defined without mathematics. Especially, apart from incarnation for the moment, we may define God as a collection of laws which together rule causality. This has seven major consequences, advantages and features.

1 God as well as causality does exist, as will be shown in §2 and §3.

*Led by the given name against Japanese tradition.
†Uploaded on Christmas Day 2014. To be updated irregularly to grow into a mature file.

2 Although causality is unique, God may not. This agrees with the fact that there is more than one monotheistic religion in the world.

3 The definition distinguishes God from 'God incarnate.' The latter is even indefinable and so indiscussible, yet we may replace it by its characteristic, i.e. supreme intellect, which is definable by logic and so may be called Logos.

4 God is omnipotent from the outset in that God rules causality. As will be shown also in §2 and §3, we may identify the omnipotence with God's omniscience, i.e. capability to explain causality. We may define God's omnipotence and omniscience in this way also apart from incarnation, or personification.

5 Personify God now and define God's will as causality. Then, although God may not be unique by (2), the will is unique. Also, the last sentence of the preface implies that religion is essentially a system of speculations and prayers, both on God's will, and the acceptance of their outcomes. Also, (4) implies that God is rational in that he rules his will and is capable of explaining it.

6 God does not conflict with science, or rather scientists believe in God in that they each pursue laws which rule aspects of causality (e.g. the law of organic evolution) and the laws may constitute God. A scientific discovery may be a revelation of God through scientists, because their deeds also follow God's will, or causality. This would convert scientists and encourage religion to accept science, notably evolutionism. The acceptance is also crucial to (7).

7 We may ascribe all attributes of causality to God and refuse to ascribe more to God. Thus God is omnipresent and timeless in that causality applies to all events in the whole space-time. God is also omnibenevolent in that causality, or rather the underlying law of organic evolution has been good for the human species to survive, although not necessarily good for individuals. Hence a solution to the problem of evil. The highest ethics would tell deeds good for the survival under causality and so agree with the omnibenevolence.

Remark 1 While useful, the words "survival" and "survive" above and below are misleading. The fact is, or a Darwinian belief is, environment allows those who possess some inheritable trait to leave more offspring than those who do not, and thus the trait spreads through the population in a long period. The word "survival" means the spread, and sentences like "The human species has behaved 'A' in order to survive" for adverbial phrases 'A' mean "The human species has behaved 'A' and therefore has spread."

The definition of God thus gives us a basis for defining all pertinent concepts and arguing out godhood. Because of the second sentence in (5), it moreover promotes harmony among religions. Being favorable to science as was noted in (6), it also promotes harmony between religion and science. See §2–4 for more about it and its consequences, advantages and features.

The definition of God, however, does not immediately tell us that God exists. How we prove the existence depends on how we define the four concepts of universe, causality, law and rule over causality which were necessary for the definition of God. We may possibly manage all the definitions and proof without mathematics, but this is where mathematics plays its role.

Mathematics in the modern sense is the totality of the study by deductive thinking based on the concept of sets and starting with definitions. While one of disciplines, mathematics plays a role in the transdisciplinary study of mathematical science, i.e. science by means of mathematical models. Mathematics provides one of the most effective tools and the most expressive and rigorous languages of science. Indeed, mathematics has led to the discovery of many scientific truths, and their non-mathematical expressions are more difficult and liable to be inaccurate than mathematical ones.

To tell the principle of mathematical science, adopting a mathematical concept M as a good model of an intellectual object O means abstracting M from a characteristic of O, and this is why M and its analysis help understand O.

This paper is concerned with several intellectual objects O suggested above. An ultimate one is God and its characteristic is omnipotence, i.e. rule over causality. We will define OMNIPOTENCE as a certain mathematical property of certain mathematical concepts, adopt it as a model of omnipotence and define GODs as the mathematical concepts which have it. There is at least one GOD and there may be more than one GOD. The model M of God is any one of the GODs. Remarks (a)–(d) in §2 show how analysis of the GODs and pertinent models will help understand God and pertinent intellectual objects. In particular, (d) stands against the notion that God has created the universe, although every existing species has come into existence because of God's will, i.e. causality, or rather the underlying law of organic evolution.

The OMNIPOTENCE and GODs depend on a model of the universe. In fact, the model of the universe given in this paper is general yet altered one convenient for explaining essentials without going into details. Its modification, specification and details will be given in [1] for the reason clarified soon.

A GOD and its OMNIPOTENCE may be compared to a complete collection $\mathcal{A}$ of axioms of a mathematical theory (e.g. Euclidean geometry) and its completeness respectively. Let $f_1, \ldots, f_n$ be the assumptions of a proposition in the theory and g be its consequence. Then the truth value of the proposition is determined by $f_1, \ldots, f_n, g$ and $\mathcal{A}$ irrespective of whether we can figure it out. The collection $\mathcal{A}$ thus rules validity, i.e. the assumption-consequence relation on the declaratives, which is unique for the theory although $\mathcal{A}$ may not. Therefore, in addition, causality (on the events) may be compared to validity (on the declaratives). As this comparison suggests, logic is relevant to our approach to God.

Logic in general is the knowledge of causality in terms of validity. When appropriately specified, however, it can deal with both intellect and the noocosmos, i.e. the totality of the intellectual objects for all kinds of people (e.g. physicists and sociologists), of which the universe is a portion. Indeed, case logic constructed in [1] provides a model of the triple consisting of intellect, the noocosmos and the relationship between them. Since Logos is the supreme intellect and the universe is a portion of the noocosmos, the model of the triple implies models of Logos and the universe and relates Logos to causality of the universe, or God's will. Thus God as well as Logos has come into the scope of mathematical noology [1] and logic is relevant to our approach to God.

2 Mathematical models and their interpretation

Here we start the mathematical part of two sections. It requires only a rudimentary knowledge of sets and a few general facts proved in [1] and [2]. In this section, we define all our mathematical models and interpret them, giving them self-explanatory names in small capitals.

We begin with a model of all possible universes, i.e. our universe and larger or other ones in the hypothetical multiverse. In fact, it is a model of what I call nooworlds in [1], of which the noocosmos is a union. Being free of the dogmas in physical cosmology and others, we regard the universe as one of the nooworlds and regard the multiverse as the noocosmos.

We define a UNIVERSE as the disjoint union $U = E \amalg F$ of a nonempty set E and a nonempty set F of k-ary relations on E for elements $k \in \mathbb{N} \cup \{\infty\}$. A k-ary relation on E is a mapping f of E^k into the set $\mathbb{T} = \{0, 1\}$ of the truth values, where the numbers 1 and 0 stand for truth and falsity respectively. We refer to the elements of E and F as ENTITIEs and EVENTs respectively.

For each $k \in \mathbb{N}$ and each k-ary EVENT f, we define an ∞-ary relation $f^\sharp$ on E by $f^\sharp \vec{a} = f(a_1, \ldots, a_k)$ for each ∞-tuple $\vec{a} = (a_1, a_2, \ldots)$ of ENTITIEs. We also define $f^\sharp = f$ for each ∞-ary EVENT f. If an EVENT f and an ∞-tuple $\vec{a}$ of ENTITIEs satisfy $f^\sharp \vec{a} = 1$, we say that f OCCURs for (or is satisfied by) $\vec{a}$. Therefore, the EVENT may or may not OCCUR according to the ENTITIEs concerned. We have thus defined OCCURRENCE for the EVENTs.

Let F^* be the set of all formal products $f_1 \cdots f_n$ of EVENTs $f_1, \ldots, f_n$ of arbitrary finite length $n \geq 0$, and let ε be the formal product of length 0. We define a relation $\vDash$ between F^* and F in the following way and denote the subset $\{g \in F \mid \varepsilon \vDash g\}$ of F by $F_\vDash$. Let $f_1, \ldots, f_n$ and g be EVENTs. Then by definition, they satisfy $f_1 \cdots f_n \vDash g$ iff $\inf\{{f_1}^\sharp \vec{a}, \ldots, {f_n}^\sharp \vec{a}\} \leq g^\sharp \vec{a}$ for every ∞-tuple $\vec{a}$ of ENTITIEs. Since $\mathbb{T} = \{0, 1\}$, the inequality $\inf\{{f_1}^\sharp \vec{a}, \ldots, {f_n}^\sharp \vec{a}\} \leq g^\sharp \vec{a}$ means that if ${f_1}^\sharp \vec{a} = \cdots = {f_n}^\sharp \vec{a} = 1$ then $g^\sharp \vec{a} = 1$, that is, if the EVENTs $f_1, \ldots, f_n$ OCCUR for $\vec{a}$ then so does the event g. Consequently, $F_\vDash$ consists of the EVENTs which OCCUR for every ∞-tuple of ENTITIEs. Therefore, we refer to the EVENTs in $F_\vDash$ as the INEVITABLEs[1], and if EVENTs $f_1, \ldots, f_n$ and g satisfy $f_1 \cdots f_n \vDash g$, we say that $f_1, \ldots, f_n$ are CAUSEs of g or that g is an EFFECT of $f_1, \ldots, f_n$. Thus we refer to $\vDash$ as CAUSE-EFFECT relation, or CAUSALITY.

The CAUSALITY $\vDash$ is easily seen to be a partially latticed relation in the sense of Theorem 2.2.10 of [2]. Therefore, it follows from §5 of [2] and others in [1] that there exists a pair $(\mathcal{O}, D)$ of a family $\mathcal{O}$ of (partial) operations on F and a

[1] **(Definition versus description)** The INEVITABLEs defined in this way are obviously the EVENTs whose values are all equal to 1. In general, however, it is not obvious whether an EVENT described in another way is an INEVITABLE or not. Indeed, every scientific law (e.g. the law of organic evolution) may be regarded, or rather should be defined as a description of an EVENT which is supposed to be an INEVITABLE.

subset D of $F_{\models}$ which has the following property (O):

(O) Let $f_1, \dots, f_n$ and g be EVENTs. Then $f_1 \cdots f_n \models g$ holds iff there exists a sequence $h_1, \dots, h_m$ $(m \geq 1)$ of EVENTs which satisfies $h_m = g$ and one of the following two conditions for each $i \in \{1, \dots, m\}$:

i There exist numbers $j_1, \dots, j_k \in \{1, \dots, i-1\}$ and an operation $\alpha \in \mathcal{O}$ such that $h_i = \alpha(h_{j_1}, \dots, h_{j_k})$.

ii $h_i \in \{f_1, \dots, f_n\} \cup D$.

Each operation in $\mathcal{O}$ associates each tuple of EVENTs in its domain with an EVENT and so may be regarded as a LAW on EVENTs. Each INEVITABLE in D OCCURs for every ∞-tuple of ENTITIEs and so may be regarded as a LAW which holds for every ∞-tuple of ENTITIEs. The condition (i) means that $i \geq 2$ and the EVENT h_i is derived from some of the EVENTs $h_1, \dots, h_{i-1}$ by one of the LAWs in $\mathcal{O}$. The condition (ii) means that h_i is one of the EVENTs $f_1, \dots, f_n$ or one of the LAWs in D. The property (O) means that the LAWs in $\mathcal{O} \cup D$ together RULE the CAUSALITY $\models$ and ARE CAPABLE OF EXPLAINING it in this way.

Thus we call $\mathcal{O} \cup D$ a GOD of the UNIVERSE U and call U the UNIVERSE of the GOD. We say "a GOD" here because, although the CAUSALITY $\models$ is unique for U, the GOD may not. Furthermore, we call (O) OMNIPOTENCE or OMNISCIENCE of the GOD and accordingly call $\models$ its WILL or KNOWLEDGE also.

The following four remarks (a)–(d) may be in order about the property (O) and the definitions based on it. They imply cautions, conjectures or challenges and also show how analysis of the GODs and pertinent models will help understand God and pertinent intellectual objects.

a Each pair of an operation $\alpha \in \mathcal{O}$ and a tuple $(h_1, \dots, h_k)$ of EVENTs in its domain has a unique EVENT h such that $\alpha(h_1, \dots, h_k) = h$. However, each tuple $(f_1, \dots, f_n)$ of EVENTs do not necessarily have a unique EVENT g such that $f_1 \cdots f_n \models g$, and vice versa. Therefore, although the LAWs in a GOD $\mathcal{O} \cup D$ each are deterministic in a sense, the CAUSALITY $\models$ is in no sense so.

b Noology in [1] will enable us to construct mathematical models of will and knowledge of persons, in particular 'God incarnate,' but they will be quite unlike GOD's WILL and KNOWLEDGE. The literal likeness is merely a consequence of implicit personification of GODs (review (5) for the same).

c A vicious circle probably prevents us from locating a GOD in its UNIVERSE. Then the GOD will exist in a larger or another UNIVERSE, which has its GODs, and the same will occur for them. Thus there will be infinitely many UNIVERSEs. Their union, which may be called the MULTIVERSE, is not a UNIVERSE but contains all UNIVERSEs and all their GODs.

d The axioms of logic and sets will provide a mathematical model of how the universe and God have come into existence, because we obtained the concept of the MULTIVERSE by deduction on set theory. The model will imply that the MULTIVERSE comes into existence out of the empty set under the axioms, which together may be called the CREATOR or the FIRST CAUSE.

3 Mathematical details

Our purpose here is to prove the following four general theorems which together imply that there exists the pair $(\mathcal{O}, \mathsf{D})$ with the property (O). Throughout, the letter A denotes an arbitrary nonempty set. We will follow the notation, terminology and convention of [1] (those in [2] are slightly different). In particular, an association (or a logic)[2] on A is a relation between A^* and A.

Theorem 1 Let F be a subset of $\mathsf{A}\rightarrow\mathbb{T}$, and define an association $\models$ on A by the following for each $(a_1 \cdots a_n, b) \in \mathsf{A}^* \times \mathsf{A}$:

$$a_1 \cdots a_n \models b \iff \inf\{f a_1, \ldots, f a_n\} \leq f b \text{ for all } f \in \mathsf{F}.$$

Then $\models$ is partially latticed.

Proof The conclusion may be derived directly from the definition or from Theorems 3.1, 3.2, 3.19 and 3.32 of [2].

Theorem 2 Let R be an association on A and assume that it is singular, i.e. its core $\mathsf{A}_\mathsf{R} = \{a \in \mathsf{A} \mid \varepsilon \,\mathsf{R}\, a\}$ is empty. Then there exists a family $\mathcal{O}$ of operations on A for which R is equal to the association $\mathsf{R}_\mathcal{O}$ on A defined by the following for each $(a_1 \cdots a_n, b) \in \mathsf{A}^* \times \mathsf{A}$:

$$a_1 \cdots a_n \,\mathsf{R}_\mathcal{O}\, b \iff \alpha(a_1, \ldots, a_n) = b \text{ for some } \alpha \in \mathcal{O}.$$

Proof There exists a family $(\mathsf{R}_i)_{i\in I}$ of associations on A such that $\mathsf{R} = \bigcup_{i\in I} \mathsf{R}_i$ and R_i is univalent for each $i \in I$, i.e. for each $a_1 \cdots a_k \in \mathsf{A}^*$ with $k \geq 1$, there exists at most one element $b \in \mathsf{A}$ such that $a_1 \cdots a_k \,\mathsf{R}_i\, b$. For example, let $I = \mathsf{A}$ and define R_i for each $i \in I$ by the following for each $(a_1 \cdots a_k, b) \in \mathsf{A}^* \times \mathsf{A}$:

$$a_1 \cdots a_k \,\mathsf{R}_i\, b \iff a_1 \cdots a_k \,\mathsf{R}\, b \text{ and } b = i.$$

Define $\Lambda = I \times \mathbb{N}$. For each $(i, k) \in \Lambda$, let $\mathsf{A}_{(i,k)}$ be the set of the elements $(a_1, \ldots, a_k) \in \mathsf{A}^k$ for which there exists exactly one element $b \in \mathsf{A}$ such that $a_1 \cdots a_k \,\mathsf{R}_i\, b$. Then we may define an operation $\alpha_{(i,k)}$ on A so that $\mathrm{Dm}\,\alpha_{(i,k)} = \mathsf{A}_{(i,k)}$ and $a_1 \cdots a_k \,\mathsf{R}_i\, \alpha_{(i,k)}(a_1, \ldots, a_k)$ for each $(a_1, \ldots, a_k) \in \mathrm{Dm}\,\alpha_{(i,k)}$.

Assume $a_1 \cdots a_k \,\mathsf{R}\, b$. Then $k \geq 1$ because R is singular, and there exists an element $i \in I$ such that $a_1 \cdots a_k \,\mathsf{R}_i\, b$ because $\mathsf{R} = \bigcup_{i\in I} \mathsf{R}_i$. Furthermore, $(a_1, \ldots, a_k) \in \mathsf{A}_{(i,k)}$ by the univalence of R_i. Therefore, $\alpha_{(i,k)}(a_1, \ldots, a_k) = b$. Conversely if $\alpha_{(i,k)}(a_1, \ldots, a_k) = b$ for some $(i, k) \in \Lambda$, then $a_1 \cdots a_k \,\mathsf{R}_i\, b$ and so $a_1 \cdots a_k \,\mathsf{R}\, b$. Thus $\mathsf{R} = \mathsf{R}_\mathcal{O}$ for the family $\mathcal{O} = (\alpha_\lambda)_{\lambda\in\Lambda}$.

Remark 2 If the association R in Theorem 2 is specific, in particular if it is the CAUSALITY on EVENTS, we will be able to pick a specific algebraic structure $\mathcal{O}$ such that $\mathsf{R} = \mathsf{R}_\mathcal{O}$ other than the general one given in the above proof.

[2] Associations are called logics in [2].

Theorem 3 Let R be an association on A and X be a subset of A. Then an element $b \in A$ belongs to the R-closure $[X]_R$ of X iff there exists an element $a_1 \cdots a_n \in A^*$ $(n \geq 1)$ which satisfies $a_n = b$ and one of the following two conditions for each $i \in \{1, \dots, n\}$ (we call $a_1 \cdots a_n$ an X/R-sequent for b):

(i) There exist numbers $j_1, \dots, j_k \in \{1, \dots, i-1\}$ such that $a_{j_1} \cdots a_{j_k} \, R \, a_i$.

(ii) $a_i \in X$.

Remark 3 The condition (i) with $k = 0$ means $a_i \in A_R$. Therefore, the conditions for $i = 1$ mean $a_1 \in X \cup A_R$, and so if R is singular, they mean $a_1 \in X$.

Proof In view of Theorem 4.2 of [2] (review Fn.2), we first show by induction on n that if b belongs to the n-th R-descendant X_n of X then b has an X/R-sequent. If $n = 0$, then $b \in X_0 = X$, and so b is an X/R-sequent for b. Therefore, assume $n \geq 1$. Then $a_1 \cdots a_k \, R \, b$ for some elements $a_j \in X_{n_j}$ $(j = 1, \dots, k)$ such that $n = 1 + \sum_{j=1}^{k} n_j$, and a_j has an X/R-sequent α_j $(j = 1, \dots, k)$ by the induction hypothesis. Thus $\alpha_1 \cdots \alpha_k b$ is an X/R-sequent for b even if $k = 0$.

We next show by induction on n that if b has an X/R-sequent $a_1 \cdots a_n$ then $b \in [X]_R$. If $n = 1$, then $b = a_1 \in X \cup A_R \subseteq [X]_R$. Therefore, we may assume $n \geq 2$ and $b \notin X$. Then for each $i \in \{1, \dots, n-1\}$, $a_1 \cdots a_i$ is an X/R-sequent for a_i, and so $a_i \in [X]_R$ by the induction hypothesis. Furthermore, there exist numbers $j_1, \dots, j_k \in \{1, \dots, n-1\}$ such that $a_{j_1} \cdots a_{j_k} \, R \, b$. Thus $b \in [X]_R$.

Theorem 4 Let R be an association on A. Define an association R' on A by the following for each $(\alpha, b) \in A^* \times A$ (we call R' the singular core of R):

$$\alpha \, R' \, b \iff \alpha \, R \, b \text{ and } \alpha \neq \varepsilon.$$

Then R is equal to the A_R-closure ${R'}^{A_R}$ of R' iff R is partially latticed.

Remark 4 If $D \subseteq A_R \subseteq [D]_{R'}$, then $[X \cup A_R]_{R'} = [X \cup D]_{R'}$ for every subset X of A, and so ${R'}^{A_R} = {R'}^{D}$. See Theorem 3 for what $A_R \subseteq [D]_{R'}$ means, and notice that if $D = A_R$ then D satisfies it.

Proof Theorem 3 shows that $[X]_R = [X \cup A_R]_{R'}$ for every subset X of A. Therefore, $R^{\emptyset} = {R'}^{A_R}$. Thus Theorem 5.4 of [2] shows that $R = {R'}^{A_R}$ iff R is partially latticed (review Fn.2).

The existence proof of the pair $(\mathcal{O}, D)$ with the property (O) Let $\models$ be the CAUSALITY on the EVENT set F of the UNIVERSE U. Then $\models$ is partially latticed by Theorem 1 applied to F and the set of the mappings $f \mapsto f^{\sharp}\vec{a}$ of F into $\mathbb{T}$ for all ∞-tuples $\vec{a}$ of ENTITIEs in U. Therefore, Theorem 4 shows that $\models$ is equal to ${R'}^{D}$ for the singular core R' of $\models$ and a subset D of $F_{\models}$ which satisfies $F_{\models} \subseteq [D]_{R'}$. Theorem 2 shows that $R' = R_{\mathcal{O}}$ for some family $\mathcal{O}$ of operations on F. Therefore, $\models$ is equal to ${\mathsf{R}_{\mathcal{O}}}^{\mathsf{D}}$, that is, each element $(\mathsf{f}_1 \cdots \mathsf{f}_n, \mathsf{g}) \in \mathsf{F}^* \times \mathsf{F}$ satisfies $\mathsf{f}_1 \cdots \mathsf{f}_n \models \mathsf{g}$ iff $[\{\mathsf{f}_1, \ldots, \mathsf{f}_n\} \cup \mathsf{D}]_{\mathsf{R}_{\mathcal{O}}} \ni \mathsf{g}$. Thus Theorem 3 and the definition of $\mathsf{R}_{\mathcal{O}}$ in Theorem 2 show that $(\mathcal{O}, \mathsf{D})$ has the property (O).

The same proof applies to the modifications of U, F and $\models$ given in [1], or more generally to otherwise defined causality, if any, provided that it is a partially latticed association on a set. This concludes the mathematical part.

4 Eusophy and the ultimate enlightenment

Know God, and thou shalt know what must be done

Being a native Japanese, I was raised in the mixture of the religious traditions of Shinto, Buddhism and Confucianism,[3] and later learned Christianity. However, I do not have faith in any established religion. The paragraph around Footnote 5 will show my conviction of what instead deserves our faith.

Religion does not necessarily have God or gods, as was noted in the preface. While Christianity is monotheistic and Shinto is polytheistic, Buddhism and Confucianism disregard or lack gods. Gautama Buddha and Confucius are founders and the most enlightened, and worshiped as such.

Instead, causality is one of the central concepts in Buddhism and so is familiar to the Japanese people by the name of Inga: *In* and *Ga* are romanizations of the Chinese letters meaning cause and effect respectively. The Japanese people have treated Confucianism as a source of socio-political ethics, which depend on empirical understanding of the socio-political aspect of causality.

With this background, I imagine that perception of causality was a common origin of the most primitive religion and ethics, as well as a common origin of logic and science. In particular, I imagine that religion was originally a plain set of speculations and prayers on causality, which were variously embellished later in order to instill in people acceptance of their outcomes. The human species must have perceived causality in order to survive in evolution (review Remark 1 and see Figure 1 which illustrates this paragraph and another below).

Thus I feel it natural that modern logic has led me to define God as a collection of laws together ruling causality and the definition has the consequences (1)–(7) which involve science, evolution and ethics as well as religion. Furthermore, each god of polytheism may be regarded as part of the collection.

It is a pity that mainstream Christianity does not quite agree with my definition of God. Notably, its doctrine Trinity identifies its God with its personified God, or 'God incarnate' Jesus Christ. My definition of God does not reject incarnation but distinguishes God from 'God incarnate' as was noted in (3).

As we persons personify various things and have something to do with the personifications, so Christians may well have something to do with their personified God, and even I have implicitly resorted to personification of GODs above by using the words WILL, KNOWLEDGE and so on as was noted in (b).

[3] For the sake of simplicity, I have leaved out Taoism and the like which are also familiar to the Japanese people.

However, personhood is distinguished from godhood, so that personification of God has limitations. Indeed, persons cannot be omniscient in the sense of (4) as will be shown by noology [1] (and as we empirically know), and neither can personified God. Therefore, as we cannot believe Genesis without ignoring cosmology and biology, so we cannot identify 'God incarnate' with God without ignoring noology (and our empirical knowledge).

Generally speaking, we cannot accept some religious creeds of ancient origin without ignoring science of modern origin (and empirical knowledge). This may have caused a conflict between religion and science, or rather between anciency and modernity, between ignorance and intelligence, between conventionality and creativity, between emotional obedience and intellectual independence, etc.

Fortunately, however, the conflict between religion and science is removable because God I defined does not conflict with science as was noted in (6), and so is the conflict among religions because God's will I defined is unique although God may not as was noted in (5). Both conflicts should be removed so that science, logic, ethics and religion harmonize in what I call eusophy, i.e. pursuit of human omniscience for survival of the human species in evolution (review Remark 1). In other words, eusophy is the totality of the deeds which presuppose evolution and aim at finding the way to the survival. The affixes "eu" and "sophy" here imply "good" and "knowledge" respectively in keeping with their Greek originals.[4] It deserves "good" in that it is benevolent to the human species, that is, its end is survival of the species in evolution. Figure 1 illustrates this paragraph as well as the above one about perception of causality.

Figure 1: The crucial perspective for the human species

$$
\begin{array}{c}
\underbrace{\begin{array}{ccccc}
 & & \text{evolution} & & \\
 & & \Downarrow & & \\
\text{science} & \leftarrow & \text{perception of causality} & \rightarrow & \text{religion} \\
 & & \swarrow \qquad \searrow & & \\
 & & \text{logic} \qquad\qquad \text{ethics} & &
\end{array}} \\
\Downarrow \\
\text{eusophy} \\
\Downarrow \\
\text{survival of the human species}
\end{array}
$$

Science, logic, ethics and religion can harmonize so by virtue of their relation to causality. Indeed, scientists each pursue laws which rule aspects of causality, as was noted in (6), except for those who speculate on its origin, or that of the universe. Logic in general is the knowledge of causality in terms of validity, as was noted in §1. The highest ethics would tell deeds good for the human species

[4] I coined the word "eusophy" against the combination "philosophy" of the affixes "philo" and "sophy" where "philo" implies "loving" or "beloved." Look up also "pansophy."

to survive under causality, as was noted in (7) with Remark 1. Religion is essentially a system of speculations and prayers, both on causality, and acceptance of their outcomes, as was noted in the preface. Thus eusophers would base their deeds on scientific truth and logical thinking guided by the highest ethics and, when science or logic hardly works well, they may possibly resort to the essence of religion, namely make speculations and prayers, both on causality, in order to do deeds which are acceptable in view of the highest ethics.

Eusophers are necessarily utilitarian in that they expect their deeds to be useful for survival of the human species in evolution and the survival is the greatest good for the greatest number of people, i.e. the whole species (review Remark 1). They also necessarily have wide scope and long sight, because evolution involves the whole human behavior in all surroundings and occurs for a long period. It goes without saying that they urge conserving or attaining the surroundings which have been or will be good for the human species to survive, esp. temperate climates and peace. They are also necessarily humanitarian in that they work eventually for eternity of the human species and not perpetually for smaller or shorter-term human groups or nonhuman beings. They are also necessarily realistic, rationalistic and righteous in that they base their deeds on scientific truth and logical thinking guided by the highest ethics except that they may possibly resort to the essence of religion when science or logic hardly works well. Above all, they are necessarily idealists, because paleontology and others have suggested that it is most difficult for species to survive.

Eusophers can enjoy their own identity by the above aim, method and attitudes. Their very omniscience for survival of us the human species (review Remark 1) deserves our faith and is what the present-day *wise men*[5] should seek out, worship, preach and put into practice.

Although eusophy has just been founded, certain existing deeds may be classified into it. I appreciate them. My humble deed in noology [1][2] is not classified so but happened to be and will be barely relevant to eusophy in that it spun off the concept of God which ultimately enlightened me on eusophy and its aim is to understand intellect which is the essence of *Homo sapiens* (wise man) and therefore most desired to survive, or spread in eusophy (review Remark 1). Intellect should spread. Indeed, if every sectarian or nationalist leader were intellectual enough to understand at least the non-mathematical part of this paper, the world would be more peaceful than it is now and people would feel more hopeful about the future than they do now.

Referred author's works and profile

[1] *Mathematical Noology: Intellectual machines, logic, tongues and algebra*, https://gomikensaku.github.io/homepage/, ever-growing WWW publication, since 2010.

[5] Look up "Magi" and "Homo sapiens" as to "wise men."

[2] Theory of completeness for logical spaces, *Logica Universalis* 3 (2009), 243–291. This is amplified by Chapter 2 of [1].

[3] Kensaku Gomi, PhD,[6] engaged in researches in finite group theory (a branch of algebra) for the Department of Mathematics, College of General Education, University of Tokyo from Apr. 1973 through Mar. 1992 and in new mathematical psychology, especially noology for the Graduate School of Mathematical Sciences, University of Tokyo from Apr. 1992 through Mar. 2010 and for himself ever after.

Acknowledgments

My thanks are due to all known and unknown individuals who have contributed to the development of today's civilization, which makes it possible for me to publish this paper. I am especially grateful to the founders of logic and set theory, as well as to the inventors of the electronic computer, the World Wide Web and the tools built upon them for editing and publishing, especially Copilot.

[6] His doctoral thesis "Characterizations of linear groups of low rank" has been published in *J. Fac. Sci. Univ. Tokyo* 23 (1976) and archived in http://hdl.handle.net/2261/7339.