ARTIGOS – ARTICLES

On the Credibility of Religion[1]

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Como citar este artigo: WINGARTNER, P. "On the Credibility of Religion", *Intelligere, Revista de História Intelectual*, nº15, pp. 304-333. 2023. Disponível em <http://revistas.usp.br/revistaintelligere>. Acesso em dd/mm/aaaa

Abstract: This paper proposes two criteria for the credibility of religion, where "religion" is understood as a belief system. We distinguish between scientific (SBS) and religious belief systems (RBS) and focus on them in this study, although we do not rule out others like metaphysical ones or world views. The criteria consist of two theses and two norms. The two theses defend the proposal that for every particular belief system there is an upper bound and a lower bound for the credibility of it. The upper bound (lower bound) is a threshold beyond (below) which a rational justification of this belief system is impossible. Norm 1 says that it should not be required that the degree of credibility of an RBS must be higher than that of any SBS, nor notably higher than the upper bound of some SBS. Norm 2 says that if it is required that the level required for the credibility of an SBS must be higher than or equal to the lower bound of it, then this must also be required for an RBS otherwise there are too few or weak reasons for its credibility. Unless both norms are fulfilled, a rational justification of the respective belief system is impossible. The norms are understood as methodological norms of the respective belief system.
Keywords: Credibility of religion. Scientific belief system. Religious belief system. Threshold for credibility. Degree of credibility.

Sobre a credibilidade da religião

Resumo: Este artigo propõe dois critérios para a credibilidade da religião, onde "religião" é entendida como um sistema de crenças. Distinguimos entre sistemas de crenças científicas (SBS) e religiosas (RBS) e nos concentramos

[1]Acknowledgments: The author is indebted to the members of the 2020 Bergseminar for their valuable comments on a preliminary version of this article. Further thanks go to two referees and to Katherine Dormandy whose questions and suggestions led to clarification and completion.
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nelas neste estudo, embora não descartemos outras, como as metafísicas ou visões de mundo. Os critérios consistem em duas teses e duas normas. As duas teses defendem a proposta de que, para cada sistema de crença específico, há um limite superior e um limite inferior para sua credibilidade. O limite superior (limite inferior) é um limite além (abaixo) do qual uma justificativa racional desse sistema de crenças é impossível. A norma 1 diz que não se deve exigir que o grau de credibilidade de um RBS seja maior do que o de qualquer SBS, nem notavelmente maior do que o limite superior de algum SBS. A norma 2 diz que, se for exigido que o nível exigido para a credibilidade de um SBS seja maior ou igual ao limite inferior do mesmo, isso também deve ser exigido para um RBS, caso contrário, haverá poucos ou fracos motivos para sua credibilidade. A menos que ambas as normas sejam cumpridas, é impossível uma justificativa racional do respectivo sistema de crenças. As normas são entendidas como normas metodológicas do respectivo sistema de crenças.

Palavras-chave: Credibilidade da Religião. Sistema de crença cientifica. Limiar de credibilidade. Grau de credibilidade.

The purpose of this paper is to propose a criterion for the credibility of religion where religion is understood in this study as a religious belief system (RBS) (cf. 2.1 below). Such a criterion is understood as an instance of a more general criterion for the credibility of a belief system. In this study we focus on two different belief systems: scientific belief systems and religious belief systems. This is not to say that these two are the only ones. There may be metaphysical belief systems, belief systems concerning arts and belief systems as world views.

Examples of scientific belief systems: The belief systems of today's physics, biology, archeology, medicine, psychology, sociology, history (or smaller domains of them). Examples of religious belief systems: The belief systems of Judaism, Christianity or Islam; or smaller domains of it like the Christian Creed.

Observe that it is justified to talk of scientific belief systems: Most of what scientists "know" reflects their belief in their colleagues. What they genuinely know is relativelysmall in proportion to what they believe. Of course, they believe their colleagues in a rationally justified way, since they trust their results which are based on accepted norms of scientific methodology. In a scientific community, such as the Max Planck Institute or CERN, scientists

believe each other in a rationally justified sense. If the head of such a community tells a larger scientific community "We are quite sure of it", it means: we have justified belief in the sense as described by Wittgenstein: " 'We are quite sure of it' does not mean just that every single person is certain of it, but that we belong to a community which is bound together by science and education."[3] Wittgenstein's description of credibility is very important for scientific teams but it must not be universalized. Important scientific beliefs can also be based on the results of single individuals as is shown by so-called "crucial experiments" or by the discoveries of many Nobel laureates.

Since the term 'religion' is amibiguous and refers to many divergent phenomena, it will be necessary to limit the reference for the present study. First we shall limit the reference to the great religions existing at present. Particularly we have in mind Judaism, Christianity, Islam, Buddhism, Hinduism, Confucianism. Second we understand these religions as religious belief systems (RBS). Third we give a wider (R1) and narrower (R2) characterization of the RBS of these religions.

R1 requires: (i) the belief in a supernatural spiritual power as a cause of the world (universe and cosmos) or (ii) the acceptance of moral norms for human behaviour and for one's own sanctification concerning the life after death. In the first five religions both (i) and (ii) seem to be satisfied, in the last mainly (ii). R2 requires in addition (iii) written texts (scriptures), believed to be revealed, which contain the Creed and the Commands. In their oral tradition, before developing written texts, the above religions satisfied R1 only. At present they have texts.[4]

By the Creed of an RBS (representing a religion) we understand a selection of those propositions of a revealed text which one is required to believe in order to count as a member of that religion represented by the respective RBS. By the Commands of an RBS (representing a religion) we understand a selection of those moral norms of the revealed text which one must accept as obligatory in order to count as a member of that religion represented by the respective RBS. The profession of faith (Credo) and the

[3] L. Wittgenstein, On Certainty. New York 1969, 298.
[4] Cf. F. König (ed.) Christus und die Religionen der Welt, Wien 1951, Bd. III. H.v. Glasenapp, Die nichtchristlichen Religionen, Frankfurt 1957. S. Radhakrishnan, Eastern Religions and Western Thought, London 1937.

Ten Commandments plus the principle of charity are concentrated summaries of the Creed and the Commands of the Christian religion. For Judaism, the Creed is contained in the Torah, for Islam in the Koran.

In this study, we understand any belief systems (BS) as being based on some written text(s). This holds true for both SBS and for RBS in the sense of R2. It holds in a most definite sense for the three Abrahamic religions (Judaism, Christianity and Islam) but also for Buddhism (above all: Sutta-Pitaka), Hinduism (Veda) and Chinese religion as Confucianism (Lunyü). Worldviews can be, but need not to be based on a text. Beliefs which are only transmitted orally are excluded from the present consideration. Those BS which violate high-standard ethical or moral rules such as Greek or Roman myths are ruled out from RBS and are not considered here.

A further clarification is that the present article concentrates on the content of belief and on the reasons for the belief. It does not - at least not explicitly - concern the action of believing or the believer himself. Therefore the "second person perspective" and other non-propositional forms are not considered.[5] We do not claim that the content of belief, i.e. what is believed, is propositional in all parts of an RBS but we assume that there is some essential part of every RBS in which the content is propositional (for norms see 2.1 below). In such parts, rational discourse about them is easier, since logic can be applied here.[6] Denying the propositional structure of the content of RBS leads immediately to absurdities: The terms 'believer' and 'disbeliever' lose their meaning and cannot be distinguished if belief and disbelief is neither true nor false. No demarcation is possible for being a member of a certain religion if there is no Creed consisting of propositions. A related important question is whether the so-called literal sense (meaning) is propositional and how it is a base for the higher levels of spiritual meanings. This interesting question, approached already by Thomas Aquinas (after Origen and others) in article 10 of q1 of Summa Theologica, is beyond the scope of this essay.

[5] For a study which concentrates on the credibility levels of speaker and hearer and their actions of believing see Jennifer Lackey, Norms of Credibility, American Philosophical Quarterly 54 (2017) 323 - 337. For the second person belief see: N.Eilan, The Second Person, New York, 2016. M.Pauen, The Second Person Perspective. Inquiry 55 (2012) 33-49.
[6] Cf. J.M. Bochenski, The Logic of Religion, New York 1965, section 13

1. Criterion 1 for the Credibility of Religious Belief Systems

1.1. Upper Bound for the Credibility of a Belief System

Thesis 1: For every particular belief system concerning some domain there is an upper bound for the credibility of it. This upper bound is a threshold beyond which a rational justification of that belief system is impossible.

Example 1: Assume the belief system to be physics. Then the requirement that the degree of credibility be verification is beyond the upper bound. As is well-known, verification of universal physical laws is impossible. We cannot investigate all metals in the universe in order to verify that all metals, when heated, expand. We cannot verify $E= mc^2$; not only because most of the masses of the universe are not accessible to us but also because of the technical difficulties involved in converting mass into energy. On the other hand, corroboration by testing consequences of the laws is below the upper bound and is therefore a candidate for credibility.

Example 2: Assume the belief system to be any SBS of the empirical sciences (SBSE), i.e. sciences which use empirical tests (in the widest sense of "empirical") to corroborate and confirm their hypotheses and laws. Both natural sciences (including medical sciences) and social sciences (including humanities, except philosophy and theology) belong to these sciences. If some SBSE contains denial of the existence of God, of the Incarnation or of supernatural objects in general, then the degree of credibility of such an SBSE is beyond its upper bound. This must be the case since it is impossible to prove this with empirical tests used by SBSE. Therefore a rational justification of the credibility of such an SBSE is impossible.[7]

Example 3: Assume the belief system to be one of the SBSE (see example 2). There is a wide range of certainty concerning both empirical test statements and scientific hypotheses and laws, ranging from a low degree of certainty to a very high degree. Nevertheless, absolute certainty or a final breakoff for further investigations does not exist in any of the SBSE. What exists is certain enough for the explanation of most of the known facts, for

[7] According to Plantinga an example of such an SBSE is the strong version of methodological naturalism. A. Plantinga, Where the Conflict Really Lies. Oxford 2011, 173f.

today's welfare via science and technology, for further research etc. Therefore a requirement of absolute certainty is beyond the upper bound for the credibility of any SBSE. A rational justification of absolute certainty of the credibility of any SBSE is impossible.

From the scientific belief systems, we first select those of mathematics and physics, especially concerning the upper bound, for the following reason: The degree of credibility granted to mathematics (formal science) and to physics (empirical science) is higher than the one granted to other sciences. Today one could add chemistry and molecular biology. Therefore, if the degree of credibility required of them is too high for them, then it cannot be required from any other science or scientific belief system. Consequently it cannot be required of a religious belief system. Thus, other sciences like psychology or history will not be considered, concerning the upper bound of credibility. Concerning the lower bound, sciences like history, sociology or psychology are more suitable for consideration here, and further those parts of natural sciences which are not so well-confirmed as in cosmology or evolutionary theory.

1.2. Requirement for Religious Belief Systems

Methodological Norm 1: It should not be required that the degree dr of credibility (CRD) for a particular religious belief system (RBS) must be higher than the degree ds of CRD for any scientific belief system (SBS).

Since it cannot be required that the degree ds of an SBS is higher than its upper bound (which would make a rational justification of an SBS impossible) then this cannot be required either of the degree dr of CRD for any RBS. Therefore: If the requirement that the degree of CRD ds of any chosen SBS be greater than d ($ds > d$) leads to the impossibility of a rational justification of the SBS, then it is not (must not be) required that the degree of CRD dr for any RBS is greater than d ($dr > d$). This presupposes of course that a rational justification of an RBS is at least possible.

The degree of credibility can be measured quantitatively in different ways. One might use probability. This is suitable for the singular propositions of a BS but – as is well-known – leads to difficulties for universal propositions. Another way is verisimilitude and a third one is epistemic entropy and

epistemic information.[8] We choose verisimilitude. The idea is due to Karl Popper[9] and can be roughly explained as follows: BS1 is nearer to the truth (or has a higher degree of verisimilitude) than BS2 if BS1 has more true and less (or not more) false consequences than BS2. The consequence-class has to be restricted to relevant consequence-elements (without loss of information) in order to avoid some special difficulties concerning Popper's original definition.[10]

Examples of application: A requirement for the credibility which is beyond the upper bound (for example verification for a BS, cf. 1.1) presupposes a false assumption such that the BS plus this false assumption has a lower degree of verisimilitude than the BS plus a more modest assumption such as confirmation or corroboration. A consistent BS has more true relevant consequences, i.e. a higher degree of verisimilitude, than an inconsistent one (cf. 3.2). The three supporting results plus the Big Bang theory (cf. 4.1 (1)) have a higher degree of verisimilitude (more true and less or not more false consequences) than the Big Bang theory plus one support.

If a miracle of healing (Lourdes) is confirmed as supernatural (i.e. not explainable by natural causes) by several physicians, their reports will have more true (and not more false) consequences i.e., a higher degree of credibility, than the respective report of one physician. A founder of a religion (such as Christ) who both preaches and lives an ideal moral life, has a higher credibility than another one who preaches but does not obey the rules. This is the case because from the doctrine of the first plus the description of his behaviour more true and less false consequences follow than in the second case, where the doctrine is inconsistent with the behaviour which implies many false consequences. The description of an event (which is important for history and religion) described by several independent historians (provided they agree in more parts than those in which they differ and their main claim is true) has a higher degree of credibility than the description of one historian if from the

[8] P. Weingartner, Knowledge and Scientific and Religious Belief, Berlin 2018, ch.5.
[9] K. R. Popper, Conjectures and Refutations, London 1963, 391-397 and Objective Knowledge, Oxford 1972, 52-60.
[10] G. Schurz / P. Weingartner, Verisimilitude Defined by Relevant Consequence-Elements. A New Reconstruction of Popper's Original Idea. In: Th. Kuipers (ed.) What is Closer-to-the-Truth? Amsterdam 1987, 47-77. P. Weingartner, Basic Questions on Truth, Dordrecht 2000, ch.9.

description of the former more true and not more false consequences follow than from the description of the latter, and similarly for other cases.

A criterion for the degree of security of "private revelations", which can be interpreted as a kind of upper bound for their credibility, is due to Karl Rahner: "It is unreasonable, illogical and dangerous to require w.r.t. "private revelations" after Christ, concerning their divine causation, a degree of security which – if required of the fact of the Christian "public" revelation – would make a rational justification of the Christian revelation impossible"[11]. We think that this criterion for the security is very reasonable for the question of the credibility of "private revelations".

2. Basic Concepts Concerning Belief Systems

2.1. Belief System (BS)

A BS is a set of propositions, including norms which are believed by some community. The community might consist of scientists, of religious people, of philosophers, of physicians etc.

Since norms are included, they have to be translated into that-clauses in order to be true or false like propositions. For example: "That lying is forbidden, is true."

2.2. Internal Inconsistency

If a proposition p belonging to BS is inconsistent with another proposition q belonging to BS then BS is internally inconsistent.

(1) Quine's Mathematical Logic in its first edition (1940) was internally inconsistent. Quine writes in the preface of the revised edition (1951): "The prime mover of the most important revision was Rosser, who discovered,

[11] K. Rahner, Visionen und Prophezeiungen, Basel 1958, 23f. (My translation). It is unfortunate, though, that Rahner in the same book (p.81) formulates a criterion for the credibility of "private revelations" which contradicts the reasonable one above: "This principle must hold! Supernatural causation cannot be presupposed but has to be proved." ("Es muss das Prinzip in Geltung bleiben: Übernatürliche Einwirkung ist nicht vorauszusetzen, sondern zu beweisen"). This requirement is beyond the upper bound of any RBS and consequently of the Christian revelation and of "private revelations" after Christ. Although Rahner does not say what he means by "proved" it is hard to interpret this in such a weak sense that the contradiction could be avoided.

shortly after the first edition appeared, that the axioms of class theory in the middle of the book were contradictory."[12]

(2) Frege's Grundgesetze der Arithmetic are internally inconsistent because of axiom 5. Frege writes in his Nachwort: "Einem wissenschaftlichen Schriftsteller kann kaum etwas Unerwünschteres begegnen, als dass ihm nach Vollendung einer Arbeit eine der Grundlagen seines Baues erschüttert wird. In diese Lage wurde ich durch einen Brief des Herrn Bertrand Russell versetzt … Es handelt sich um mein Grundgesetz V […] Herr Russell hat einen Widerspruch aufgefunden […]."[13]

(3) The genealogical tree in Matthew 1:1-17 is inconsistent with the one in Luke 3:22- 34 (probably both trees are incomplete) such that the BS of these two gospels is internally inconsistent.

A common feature of these three examples is this: The inconsistency has not been used in such a way as to cause trouble. It occurs in an isolated way. "An inconsistency is not used to cause trouble" means that no (or only a few) further false statements have been derived from the inconsistency; since from a logical point of view (infinitely) many arbitrary false statements are derivable from a contradiction (ex falso quodlibet). In Quine's work the inconsistency affected some theorems. Hao Wang gave a general device for repair.[14] In Frege's work Russell discovered a hidden, but a very general difficulty which forbids one direction of axiom 5, namely that every arbitrary function defines a class.

In Principia Mathematica, Russell and Whitehead gave a solution with their Type Theory and Zermelo gave another one with his Aussonderungsaxiom.[15]

The inconsistency of the two genealogical trees is isolated in the sense that it is never mentioned again in these or the other gospels nor in other parts of the New Testament (NT) and moreover, it does not affect any of the doctrines or commandments of the NT.

[12] W.v.O. Quine, Mathematical Logic. Cambridge 1951, IX.
[13] G. Frege, Grundgesetze der Arithmetik. Vol. II. Reprinted, Darmstadt 1903/1962, 253. Axiom V is described in Vol I, § 20 and 47.
[14] Quine, Mathematical Logic, 159.
[15] E. Zermelo, Untersuchungen über die Grundlagen der Mengenlehre I, in: Mathematische Annalen 65 (1908), 261-281.

2.3. External Inconsistency

If a proposition p belonging to BS1 is inconsistent with another proposition q belonging to BS2 such that q is a well-established or well-corroborated scientific result, then BS1 is externally inconsistent.

Examples:

(1) Hegel's doctrine of a causal influence, namely that everything causally affects everything, is externally inconsistent with the Special Theory of Relativity according to which causal propagation cannot be faster than light velocity.

(2) Kant's doctrine that the real space of the universe is based on the apriori conditions of our mind which determine Euclidean Geometry is externally inconsistent with the following two theorems of Helmholtz:

H1 – If the measurement rod, freely movable in space, is rigid and sufficiently small then the geometry that is measured with such rods is Riemannian.

H2 – If the measurement rod, freely movable in space, is rigid and of finite extension then the geometry that is measured with such rods is Euclidean, elliptic or hyperbolic, i.e. of constant curvature.[16] [17]

That means, contra Kant, that the empirical properties of material bodies (measurement rods) and their size – when freely movable in space without losing rigidity – determine the geometry of the real (not ideal) physical space of the universe. This later became a consequence of the General Theory of Relativity.

(3) The metaphysical doctrine of Pantheism is externally inconsistent with some consequences of Quantum Mechanics. More accurately, the two assumptions that God is omniscient and that he belongs to the world (as a part of or identical with it) are incompatible. The reason is, that it can be rigorously proved that an "internal observer" of a quantum-mechanical system cannot know (observe) all states of this system. Therefore, if the system is the whole

[16] H. Helmholtz, Über die Tatsachen, die der Geometrie zu Grunde liegen, in: Nachrichten der Königlichen Gesellschaft der Wissenschaften und der Georg-Augusts-Universität, Nr.9 (1868), 193-221.

[17] P. Mittelsteadt / P. Weingartner, Laws of Nature. Berlin 2005, 54 ff.

world, then the "internal observer" as the pantheistic God cannot know all states of the world.[18] [19]

(4) The claim of some Creationists that humankind is only 6000 years old is externally inconsistent with well-established scientific results.

(5) The claim of many Creationists concerning the creation and development of the universe, i.e. that God does everything himself without willing to incorporate more or less perfect/imperfect creatures who contribute to the development of the Universe, is externally inconsistent with the scientifically well-established part of the theory of evolution.

(6) The global Theory of Evolution which claims that every fact of the universe emerged through evolution is externally inconsistent with the well-established fact that the fundamental laws and constants of nature could not have developed, since they could not have been different at some point in time. It is known that the fundamental constants of nature (mp/me, α, c, G, h) had to have these numerical values (or values very close to it), from the beginning since otherwise, no formation of galaxies, stars and the solar system would have been possible.[20] [21] [22]

3. Application of Methodological Norm 1

3.1. Is it rationally justifiable to require internal consistency for the CRD of a BS?

The answer to this question depends very much on whether the whole of a comprehensive BS is involved (with the internal inconsistency) or only certain parts of it. First we consider the whole of certain BS.

(1) Take SBS to be the whole of mathematics; or take ZF-Set Theory or NBG-Set Theory from which a great part of the whole of mathematics can be deduced. Then to require a proof of internal consistency for the CRD of SBS

[18] T. Breuer, The Impossibility of Accurate State Self-Measurement, in: Philosophy of Science 62 (1995), 197-214. T. Breuer, Subjective Decoherence in Quantum Measurements. Synthese 107 (1996) 1-17.

[19] Mittelstaedt, The Interpretation of Quantum Mechanics and the Measurement Process. Cambridge 1998, section 5.3.

[20] J. Barrow / F. Tipler, The Anthropic Cosmological Principle. Oxford 1986, 31.

[21] R. Penrose, The Road to Reality. New York 2005, ch. 27 and 28.

[22] For the question of external inconsistency of religious belief see P. Weingartner, Knowledge and Scientific and Religious Belief. Berlin 2018, 126 - 132.

is beyond the upper bound; this follows from Gödel's second incompleteness theorem: a consistency proof of such an SBS is only possible in a system richer than SBS, the consistency of which is then again questionable.

(2) Take SBS to be the whole of physics. To then require internal consistency of the CRD of SBS goes beyond the upper bound (we may say, at least so far). In CM (Classical Mechanics) an object has a continuous trajectory and has identity over time. In QM (Quantum Mechanics) a QM-object does not have a continuous trajectory and is (as an individual object) not identifiable over time. Identity over time holds only for the kind of objects (electrons, neutrons, photons, protons, etc.) because of permutation invariance. In SR and GR (Special and General Relativity) continuity is preserved but identity through time is not because the essential properties of the objects like geometrical shape and mass (except charge) may change depending on movement. There are further well-known incompatibilities.[23]

Observe that in the case of mathematics nobody knows whether the whole of mathematics is consistent. Therefore a proof of consistency could be required for the credibility. But such a requirement is beyond its upper bound (cf. (1) above). On the other hand in the case of physics no such proof needs to be considered, for several inconsistencies have been recognized over many decades.

(3) Take RBS to be the whole Christian Revelation documented in the canonical scriptures. According to the Catholic Church, the canonical scriptures are defined by the Synod of Rome (382) and the councils of Florence (1442) and Trent (1546) (cf. Denzinger D179, 180, 1335, 1502, 1503). These are scriptures or the Old and New Testament.[24]

Should we require proof for the internal consistency of the whole Christian Revelation documented in the canonical scriptures of the Old and New Testament? It follows from (1) and (2) above, together with Norm 1, that this should not be required. Since the requirement for showing the internal consistency of the strongest scientific domains, mathematics and physics, goes

[23] P. Weingartner, Russell's Concepts "Name", „Existence" and „Unique Object of Reference" in the Light of Modern Physics, in: The Journal of Bertrand Russell Studies 27 (2007), 59-77, sections 6 and 7, and Mittelsteadt / Weingartner, Laws of Nature, ch. 10 and 6.

[24] H. Denzinger, Kompendium der Glaubensbekenntnisse und kirchlichen Lehrentscheidungen, ed. P. Hünermann. 40. Aufl. Freiburg 2005.

beyond the upper bound of credibility it should not be required for a religious BS either.

3.2 Is it rationally justifiable to require internal consistency for the CRD of an essential part of a comprehensive BS?

We think that such a requirement is rationally justifiable and does not go beyond the upper bound for CRD of a comprehensive BS. This can be substantiated as follows: Gentzen proved the consistency of First Order Peano Arithmetic; the theory of real closed fields is consistent and decidable. Classical Mechanics (CM) is apparently internally consistent, although some hidden assumptions like universal time and simultaneity are externally inconsistent with SR. SR seems to be internally and externally consistent.

The internal consistency for the CRD of an essential part, also seems to be rationally justified for a religious belief system (RBS). An example of an essential component of an RBS is its "Creed". The Creed of a religion is of such importance that a person can be called a member of a certain religion if s/he believes all the statements of the respective Creed.[25] As is clear from 2.1 we have to add the belief in the validity of norms, for example, the Ten Commandments. Since the Creed is of such importance for a religion – this holds, in particular, for Judaism, Christianity and Islam, because their Creed is based on written texts – it is rationally justified to require internal consistency of the respective Creed. This is the more so because it holds for the respective religion or RBS that the Creed should be believed (or it is obligatory that it be believed) by every member. Thus, the following statement seems to be valid:

If it is required that the Creed is believed then it is required that this Creed is internally consistent. Or: If the Creed should be believed then this Creed should be internally consistent. And since it holds for every religion that its Creed should be believed, it follows that the Creed should be internally consistent. The task of showing this consistency is certainly a task of the theology (if there is one) of the corresponding religion.[26] Armin Kreiner

[25] J.M. Bochenski, The Logic of Religion. New York 1965, ch. 3.3, 3.4 and 13.1.
[26] T. Aquinas, ST - Summa Theologica. Translation by Fathers of the English Dominican Province, Christian Classics. Westminster 1948, (reprinted 1981), I - II, 1,5 ad 2.

strongly defends the necessity for accepting the rules of internal consistency when speaking about God.[27]

Concerning the Christian Creed, the incarnation of God the Son raises the question of the consistency of one person being God and man. Attempts to solve this difficulty are the Church Documents of the councils of Chalcedon (451) D300, D302 and Toledo (675) D534, D535 and Thomas Aquinas, ST III, q 2. Concerning the question of the consistency of propositions describing omnipotence, benevolence and evil, attempts at a solution have been made since Leibniz's theodicy. An important clarification is God's educational function, elaborated in Hick's "Evil and the God of Love" (London 1977) although this function is not new since it occurs frequently in the Old and New Testament. It can be shown that several attacks which claim an inconsistency here use arguments which contain logical fallacies or presuppose false premises about God.

Moreover, the consistency of axioms and theorems describing omnipotence, benevolence and evil can be proved by describing these three concepts in an axiomatic system of theodicy.[28]

However, in some sense, every religious believer has the task of finding a consistent approach to the things s/he believes religiously and this holds true especially for the tenets of the respective Creed.

3.3 Is it rationally justifiable to require external consistency for the CRD of a BS?

External consistency with an independently established reliable scientific result can be accepted as a credibility requirement that is below its upper bound.

It follows from Norm 1 (last part): If the possibility of a rational justification of SBS implies the permission that the degree of CRD ds of any SBS is lower than the upper bound d then it is permitted that the CRD dr of RBS is also lower than d (dr<d).

[27] A. Kreiner, Das wahre Antlitz Gottes, Freiburg 2006, 186 – 195.
[28] Cf. Weingartner, Theodicy, Bern 2021, chs. 2,3 and 6. Cf. further J.Polkinghorne, The Faith of a Physicist, Minneapolis 1994 which is an interpretation of the Christian Creed. A. Plantinga, God and other Minds, Ithaca 1990, part II.

Examples of External Inconsistency

(1) Take SBS to be Classical Mechanics (CM). A hidden assumption of CM is that of the universal observer-invariance; that means that an observer can freely move in space having rigid measurement instruments (rods and clocks). This is externally inconsistent with Special Relativity and is refuted by the Hafele-Keating experiment with atomic clocks which proved time-dilatation (1972).

(2) Take the RBS to be the book of Wisdom. Verse 1:13 reads: "For God made not death, neither does he take pleasure in the destruction of the living." This is externally inconsistent with the well-established scientific result that coming into being and passing away and dying out had existed and belonged to the universe for billions of years. However this inconsistency is resolved by looking at the preceding verse (Wis 1:12) which restricts this death to the death through sin: "Seek not death in the error of your life, neither procure the destruction by the works of your hands." The mistake in quoting only Wis 1:13 is not trivial because it happens in the Catechism of the Catholic Church (CCC). There it leads to the wrong claim: "Death contradicts God's decree" (CCC1008) which is a wrong extrapolation from death through sin to death in general and which is externally inconsistent with the well- established facts above and with the contingency of the creation in general. On the other hand, neither St. Paul (Rom 5:12) nor the respective Church Document (D1511) is in conflict with these facts.

(3) Take the RBS to be the description of God's creation in Genesis (Gen 1). If any interpretation of this description is such that it excludes any kind of development and evolution then it is externally inconsistent with the results of contemporary science. However the text of Gen 1 firstly does not rule out that evolution is done by creation and secondly, that God created such creatures who themselves contribute to the development and evolution of the universe as expressed by Gödel: "God created things in such a way that they themselves can create something."[29]

(4) On the other hand, if someone by "evolution" understands a theory which rules out creation as not possible, then this theory exceeds its scientific

[29] K. Gödel MAX PHIL, 4 X. Cf. Thomas Aquinas (ST) I, 23, 8 ad 2. For more examples of that sort see Weingartner, Knowledge and Scientific and Religious Belief, section 9.3.4.

limits by containing parts which are not testable. That means their credibility is at the border or below its lower bound (cf. 4.1 below).

4. Criterion 2 for the Credibility of Religious Belief Systems

4.1. Lower Bound for the Credibility of a Belief-System

Thesis 2: For every particular BS concerning some domain there is a lower bound for the credibility of it. This lower bound is a threshold below which a rational justification of this BS is impossible or hardly possible.

Examples:

(1) Take the BS to be the cosmological theory of the Big Bang. This theory has three strong supporting results: The expansion of the universe, the singularity theorems of Hawking and Penrose and the discovery of the cosmic background radiation by Penzias and Wilson.[30] [31] Assume now that none of this information were true or available: The universe would be understood as static and not expanding (Einstein's original conjecture), no singularity theorem could be proved and the cosmic background radiation would not have been discovered or did not exist. Then the credibility of the Big Bang theory would be below its lower bound; a rational justification would hardly be possible.

The information about cosmic background radiation seems to be the most important of the three supporting results. Thus even in the absence of the other two, the Big Bang Theory would satisfy the lower bound for its credibility.

(2) Take the BS to be the Torah (the five books of Moses of the Old Testament). The second book of the Torah, the book "Exodus", describes the exodus of the people of Israel from Egypt (see Ex 12:17, 31; 13:8,14; 23:15). It probably happened during the government of Ramses II (1304-1237) although this date is not certain.[32] This description has further support in other books of the Bible: first in the book of Leviticus (23:43) and Deuteronomy (6:20-23; 16:1; 26:5-10), which both belong to the Torah, and secondly in the Psalms (Ps

[30] S. Hawking / R. Penrose, The Singularities of Gravitational Collapse and Cosmology, in: Proceedings of the Royal Society A 314/1519 (1970), 529-548.
[31] A. Penzias / R.W. Wilson, A Measurement of Excess Antenna Temperature at 4080 Mc/s, in: Astrophysical Journal 142 (1965), 419-421.
[32] Cf. F. Kogler / R. Egger-Wenzel / M. Ernst, Herders Neues Bibellexikon (HNBL), Freiburg 2009, 196f.

78; 12:43, 51), in Joshua (4:23) and in Judges (8:23), all belonging to the Old Testament. Third, there is support in the New Testament, for example, Acts 7:6, 36. Heb 3:16; 8:9, Jude 5. It is presupposed that this support is the result of critical exegesis. Suppose now that, except for the description of the exodus in the book "Exodus", there is no mention of this important historical fact in any other part of the Bible (Old and New Testament (cf.3.1(3) above)). Then the credibility of the exodus would be on the border of the lower bound or below it. A rational justification for such a disconnection from other parts of the Bible would hardly be possible.

(3) Take the BS to be the books of the New Testament. The resurrection of Christ is described or mentioned in most of them: in all four gospels (Mt 28:1ff. Mk 16:1ff. Lk 24:1 ff. Jn 25:1 ff.) in the Acts (Acts 2:24; Acts 10:41), 1 Peter 1:3 and in many letters of St. Paul (1 Cor 15:12 – 21; Rom 1:4; 4:24; Gal 1:1; Eph 1:20; Col 2:12; 1 Thess 1:10; Heb 13:20). As with respect to example 2, we presuppose that these numerous examples of support are the result of critical exegesis.[33] [34] Imagine now that the resurrection of Christ had been described in just one gospel only or just in one letter of St. Paul and there had been no mention of it in other books of the New Testament. Then the credibility of the resurrection of Christ would be on the border of the lower bound or below it, similar to example 2. Moreover a rational justification for no mention of this decisive fact of Christian belief in other parts of the New Testament would hardly be possible.

That Christ's resurrection is a decisive part of Christian belief and Christian revelation is clearly and unambiguously stressed by St. Paul: "If there is no resurrection of the dead, then not even Christ has been raised. And if Christ has not been raised our preaching is useless and so is your faith [...] But Christ has indeed been raised from the dead [...] ." (1Cor 15:13-14, 20)

It might be objected that describing the Exodus or the resurrection of Christ in more than one book or gospel does not increase the degree of credibility. That this is not correct can be shown first by analogous examples from natural sciences and then by examples from social sciences, such as psychology and history.

[33] W. Kasper et al. , LThK Lexikon für Theologie und Kirche. Freiburg 2009, Vol I 1177ff.
[34] HNBL, 59-62.

From mathematics, it is known that if a difficult mathematical proof is made by a second mathematician, usually with another proof-method, then this offers serious support and increases the degree of credibility. If an important physical or chemical experiment is done by a second research team (or even by a single experimentalist) with the same result, but usually using another method – there are lots of such examples in physics and chemistry – then this is a strong support for the respective result and increases its degree of credibility.

The same is true in the human sciences. In psychology, an important new experiment like the False-Belief Test – even if done very carefully at the time of invent ion – gets a higher degree of credibility if it is done and confirmed by many others.[35] If historians find more historical sources (texts, documents etc.) for an important event in history then this increases the credibility. This is so even if the texts found describe the respective event differently or from a different point of view or with different presuppositions.

4.2 Requirement for Religious Belief Systems

Norm 2: If it is required that the degree ds of CRD for any SBS is higher than or equal to the lower bound d ($ds \geq d$) then it should also be required that the degree dr of CRD for any RBS is higher than or equal to d ($dr \geq d$).

Since it cannot be permitted that the degree ds of SBS is lower than its lower bound (which would make a rational justification of SBS impossible) this cannot be permitted either of the degree dr of CRD for any RBS. Therefore: If the permission that the degree ds of CRD of any SBS is lower than d ($ds < d$) leads to the impossibility of a rational justification of that SBS then it is not permitted that the degree dr of CRD for any RBS is lower than d ($dr < d$).

5. Application of Methodological Norm 2

The three examples in section 4.1. show that suitable support is necessary in order to satisfy Norm 2, i.e. to reach a degree of credibility for an SBS or an RBS that is higher than its lower bound. In example 1, the support

[35] H. Wimmer / J. Perner, Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception. Cognition 13 (1983) 103 – 128. Since 1983 the False- Belief Test has been done frequently with a variety of methods.

consists of both observational and theoretical results. In example 2 and 3, the support consists of the result of critical exegesis concerning the interpretation of biblical texts.

A first question concerning the lower bound of an RBS is the following: If an RBS presupposes supernatural spiritual power as a cause of the world (God) then is it necessary to prove the existence of it (God) or to give at least strong support for it in order to reach the lower bound of credibility? The answer to this question depends on two different goals. If the goal is to convince outsiders or unbelievers, then this might be a part of the support for reaching the lower bound in the view of an unbeliever. However its importance should not be overestimated. Even logically valid proofs[36] cannot force one to believe, since there are always some of the premises which are not evident enough. If the goal is to reach the lower bound by searching for further evidence for believers then the existence of God (OR) is usually presupposed, although the strength of belief may be too weak and may need further support. That the lower bound of credibility of RBS is essential for insiders and believers is often neglected.[37] Especially for theologians, philosophers or for religious and in general academically educated people it is very important to reach the lower bound of credibility of the RBS by continually searching for further reasons and evidence. We shall not dive into these problems any further because of scope problems and also because the existence of God is not the topic of this article.

5.1 Is it rationally justifiable to require proof, or at least support by observation, for the CRD of a BS?

Observation is understood here in a wide sense; it may be direct, indirect (with the help of instruments) or by planned experiment, always

[36] There are logically valid proofs of the Five Ways of Thomas Aquinas: Bochenski, The Five Ways. In: A.G. de la Sienra (ed.) The Rationality of Theism. (Proof of the 2nd way). Amsterdam 2000, 474-497. W. Löffler, Logische Annäherungen an die quarta via des Thomas von Aquin. In: F. Ricken, Klassische Gottesbeweise in der Sicht der gegenwärtigen Logik und Wissenschaftstheorie, Stuttgart 1998, 138-166. Weingartner, God's Existence. Can it be Proven? (Proof of ways 1,2,3,5) Heusenstamm 2010. Cf. Weingartner, Theodicy, 34-36. For Ontological Proofs see M. Szatkowski, Ontological Proofs Today, Frankfurt 2012. For a discussion of other reasons for the existence of God (without formal proofs) like "best explanation for the universe" see R. Swinburne, The Existence of God, Oxford 1979.

[37] For a justification see K. Dormandy, Evidence – Seeking as an Expression of Faith, American Catholic Philosophical Quarterly 92 (2018) 409-428.

including some kind of sense perception as a necessary component. We think that the answer to the above question is "Yes" for all BS and guarantees a degree of CRD higher than the lower bound.

It may be objected that mathematics, philosophy and theology are counterexamples. However, without seeing signs and hearing words and examining them, they are not possible. Observe that this is not trivial: To control a mathematical proof is possible only via the signs of the symbolic language of mathematics. In philosophy and theology, the arguments can be controlled only via the written text. That means that the respective sense perception needed is essential.

Proof or support by observation concerns singular or particular events happening in a restricted space-time region. This is obvious for BS of natural sciences; but history, sociology, psychology, linguistics etc. also use proof or support by observation.

Should we claim this also for RBS? And can this claim be satisfied? The answer is "Yes" for the claim. However, it will be "Yes" concerning the satisfaction of the claim only for some RBS.
It will be defended in section 5.2 below that the requirement for support by observation is satisfied by the Judeo-Christian Religion.

5.2 Support by Observation in the Judeo-Christian Religion Examples of different types of observation:

(1) Moses heard the voice: "I am who I am" (Ex 3:14).

(2) Abraham heard the voice: "Do not lay a hand on the boy" (Gen 22:12).

(3) Exodus: The manifold predictions and promises to free the people of Israel from Egypt probably were fulfilled during the government of Ramses II (1304 - 1237).

(4) Babylonian exile: Predicted by Jeremiah (25:1 f. 605) and came true in 586.

(5) "Doesn't your teacher pay the temple tax?" "Yes he does", Peter replied [...] [Jesus said]: "But so that we may not cause offense, go to the lake and throw out your line. Take the first fish you catch; open its mouth and you

will find a four-drachma coin. Take it and give it to them for my tax and yours". (Mt 17:24, 27).

(6) "Thomas said to them: 'Unless I see the nail marks in his hands and put my finger were the nails were, and put my hand into his side, I will not believe' [...] A week later [...] Jesus came and [...] said to Thomas: 'Put your finger here; see my hands. Reach out your hand and put it into my side. Stop doubting and believe.' " (Jn 20:25-27).

(7) "Today we [the six seers] waited for the Blessed Virgin in Vicka's room. At exactly 6.30 (July 29, 1981), the Gospa came and greeted us. Praised be Jesus! (…) Jakov asked if we could embrace her. The Blessed Virgin said that we should approach and embrace her."[38]

(8) Miracle of the Sun (Oct. 13, 1917; Fatima). Predicted 3 times by Holy Mary (July 13, Aug. 19, Sept. 13). Before 12pm: ca. 70000 people came to look for the predicted miracle; heavy rain before 12pm, everybody was dripping wet. At 12pm the rain stopped. The sun broke through and started trembling and rotating; the surrounding objects on the square appeared in different colours. This lasted for around 10min, and after it everyone's clothes were dry. Recorded by many witnesses (journalists, lawyers, med. doctors, theologians). Records also from up to 30km away. [39] [40] [41]

(9) Lourdes: More than 6000 miraculous healings are registered in the medical bureau in Lourdes.

(10) Prediction of World War II: Fatima, July 13, 1917: "During the pontificate of Pius XI, when you see a night illuminated by an unknown light, know that this is the great sign given you by God". This came true on Jan 25/26, 1938 (the light); March 12, 1938: Occupation of Austria; Sept, 1939: Attack on Poland.

(11) Prediction of the Balkan War: Medjugorje, Oct. 25, 1985 to the seer Mirjana. This came true on June 25, 1991 (exactly 10 years after the first apparition to the six seers June 25, 1981).

[38] R. Laurentin / R. Lejeune, Messages and Teachings of Mary at Medjugorje. Chronology of the Messages. The Riehle Foundation, Milford, Ohio 1988, 156.
[39] L. Gonzaga da Fonseca, Maria spricht zur Welt. Innsbruck 1953, 86ff.
[40] F. Michel de la Sainte Trinité, The Whole Truth About Fatima. Buffalo 1989, Vol I, ch. 10.
[41] M. Hauke, Das Sonnenwunder von Fatima als Zeichen der Hoffnung, in: Theologisches 47 (2017), 7- 36.

(12) Prediction of Rwanda Genocide: Kibeho, Aug. 15, 1982 to the seers Alphonsine, Nathalie, Marie-Claire. This came true on April 6, 1994.
(13) The physicist Frank J. Tipler proposed methods to prove Christ's resurrection and ascension by observation: One has to look at the stones of the grave of Jesus (or at the place of ascension) for traces of high-energy neutrinos, since a repulsing neutrino-beam emerging from Christ could explain resurrection and ascension.[42] We agree with Tipler that even miracles of religion (in addition to miracles of nature) do not violate the laws of nature.[43] [44] God who has created the laws of nature may use them to work miracles of religion. However, we think that an explanation of miracles of religion with the help of our knowledge of laws of nature will never lead to a sufficient or complete explanation; and this for two reasons. First, because our knowledge of the laws of nature is never complete and not in such a state that we can use it fully: If we could use the law $E = mc^2$ fully we would not have any energy problems since 1g of mass would give us 2.5×10^7 kilowatt-hours. Second, because in both scientific and religious belief, a serious incompleteness of an explanation is filled by a voluntary component for the assent. As long as it is belief, even the most reliable reasons and support are not sufficient for the belief being transferred into knowledge. Scientific belief can become knowledge by some kind of proof or by sufficient corroboration or confirmation in the case of universal hypotheses or laws. However, before the proof is established or the experiment has been carried out there may even be a strong voluntary component for the assent in a scientific hypothesis. This is evident from the biographies of famous scientists. Einstein's strong belief in the correctness of his General Theory of Relativity before the experimental proof of the light deviation caused by big masses (successfully carried out by the expedition of the Royal Society in South Africa) is a case in point: "Ich zweifle nicht mehr an der Richtigkeit des ganzen Systems, mag die Beobachtung der Sonnenfinsternis gelingen oder nicht." written in a letter to Besso from March 1914. The Theory of General Relativity was published 1916.

[42] F. Tipler, The Physics of Christianity. New York 2007, ch. 8.
[43] Tipler, The Physics of Christianity, ch. 5.
[44] P. Weingartner, An Axiomatic Study of God. A defence of the Rationality of Religion. Berlin, 2021, section 6.3.7 for definitions of natural miracles and religious miracles.

The successful experimental proof happened on May 29, 1919 in South Africa where the eclipse allowed the famous astronomical observation.[45] [46]

5.3. The Credibility of cases (1)-(12)

Are the cases (1)-(12) meeting the lower bound of credibility?

The Scriptures (Old and New Testament) contain both religious and profane statements and norms.[47] This also holds true for the written texts of other religions. Examples of religious statements are Ex 3:14, Gen 22:12, Lk 24:6, etc. Religious norms are the Ten Commandments, the principle of charity, etc.

Examples of profane and non- religious statements are 1 Kings 1:1, Mk 7:3; for profane and for non- religious norms Gen 41:35f.

The class of statements which are both religious and profane is not empty and is very important. Most of the religious statements of the Old and New Testament have a profane (historical) component. In other words, both the religious and the historical component are intertwined. The problems of their intertwined relationship has been investigated by theology for centuries and cannot be the task of this short essay.[48] All the examples (1) – (12) of section 5.2 above have both a religious and a profane component; and the profane component is both historical and in a special sense observational. What is at stake here is the question of whether the situations described in (1) – (12) have a degree of credibility which is equal to or higher than the lower bound for the RBS of the Judeo-Christian Religion. This question can be answered as follows:

(a) Since all examples (1) – (12) of 5.2 have a historical component, the degree of their credibility must meet the lower-bound for credibility of historical sciences first. In all cases it holds that searching for further evidence is required, especially if doubts come up with respect to certain aspects, concerning both the historical and the religious component.[49]

[45] M. Besso / A. Einstein, Albert Einstein – Michele Besso Correspondence 1903 – 1955. Paris 1972.
[46] A. Pais, Subtle is the Lord, Oxford 1982, § 16b.
[47] For this difference in religious discourse see Bochenski, Logic of Religion § 22-24.
[48] Cf. R.N. Nnamdi, Offenbarung und Geschichte, Frankfurt 1993.
[49] For details see K. Dormandy, Evidence – Seeking as an Expression of Faith, American Catholic Philosophical Quarterly 92 (2018) 409-428.

(b) The miracle of the sun (Fatima) and the miracles of healing (registered in the medical bureau in Lourdes) meet the historical lower bound easily, although first just as historical facts and then as scarcely having a natural explanation.

(c) The recent predictions of Holy Mary (10) – (12) are very well documented historically and therefore meet the historical lower bound.

(d) Concerning Exodus and the Babylonian exile, the events themselves have a high degree of historical certainty.[50] The exact dates of the route (there are 3 possibilities) of the Exodus are uncertain, the dates of the Babylonian exile are more certain. The fact that an event certainly occurred, but not the exact date, happens frequently in history.
An example is Luther's public announcement of his theses.[51]

(e) In cases of Thomas (6) and the six seers (7) the historical event is a bodily touch. The degree of credibility in (7) is historical certainty, since all the six seers are alive (born between 1964 and 1971, all are married and have children). They are still interviewed and can be questioned.

(f) The events (1), (2), (5) and (6) are known as reported in the Bible and as critically commented upon by exegetical research. In these cases, the historical sources are not sufficient to speak of enough historical evidence or enough historical knowledge. Therefore, the degree of credibility concerning the historical component of these events may be below its lower bound. Does it follow from this that a rational justification of these events is impossible?

It does if there are no other reasons or any evidence except the historical ones. But there are other reasons. These reasons concern the religious component of these events. As Inwagen puts it: "While I would agree with them [the enemies of Christianity] that it is impossible to demonstrate on historical grounds that, for example, Jesus was at some time dead and was later alive, I see no merit in the thesis that the only grounds that could warrant assent to that proposition are grounds of the kind that historians recognize."[52]

[50] Cf. HNBL, 196-198 and 68-69.
[51] Cf. E. Iserloh, Luther's Thesenanschlag. Tatsache oder Legende? Wiesbaden 1962.
[52] P.v. Inwagen, God, Knowledge, and Mystery. Ithaca 1995, 182. We do not agree, however, with Inwagen's second condition for the New Testament narratives to be historically reliable: (ii) "any false statements about what Jesus said and did that the narratives may contain will do no harm to those users of the New Testament who accept them as true because they occur in the New Testament." (Ibid.p.172). Although we agree that for some or other statement (of the New Testament) it would not do harm if that statement were not there, this does not hold for

We may divide the reasons beyond the historical reasons into non-transcendental and transcendental.[53] These reasons concern Christian faith in general, including the examples (1), (2), (5) and (6). Non-transcendental reasons are: The world as a sign for a creator (according to Rom 1:20); the text of the Old and New Testament (or particular books or gospels) in which special parts are embedded; the norms for life and activity which have high ethical standard; the reportedly high ethical standard of Jesus etc. Transcendental reasons are: The text is revealed; the religious leader, Jesus, is sent by God; he is an epistemic and deontic authority[54]; he can perform miracles; man's goal of happiness cannot be reached without religious belief etc. This is not the place to enter into the complex question of to what extent some particular examples of these facts can function as additional evidence for raising the degree of credibility of the Christian RBS. However theology has the task of defending the position that these facts – forming a whole religious background – are sufficient to raise the degree of credibility of the Christian RBS to become equal to or higher than the lower bound for RBS.

5.4. The Voluntary Component - Necessary for Religious Belief

In contradistinction to scientific belief, religious belief cannot become knowledge in this life, only in the next life, or at the earliest in the process of death. This is the case for normal religious people. There are, of course, exceptions, such as the prophets of the Old Testament, the apostles and disciples of Jesus Christ, Holy Mary, several saints and people who received special apparitions like the children in La Salette, Lourdes, Fatima and the youngsters in Medjugorje and Kibeho.

Plantinga and Torrance think that religious belief can become genuine knowledge even for normal religious people. We don't think that this is correct. One reason is that religious belief (for normal religious people) is – like

"any" statement, otherwise this condition leads to immunisation concerning critical exegesis. Moreover no statement of the CREDO (a concentrated form of the Christian Creed) can be missing without serious harm. However this is not the place to go into this complex topic. For other claims of Inwagen about chance and God's plan see Weingartner, Nature's Telelogical Order and God's Providence. Berlin 2015, p.104f. and 116.

[53] See again Dormandy, Evidence – Seeking and Weingarnter, Knowledge and Scientific and Religious Belief, ch. 10.

[54] Cf. Bochenski, Analysis of Authority. In: Bochenski, The Logic of Religion §50. K. Dormandy, Epistemic Authority: Preemption or Proper Basing? Erkenntnis 83 (2018) 773-791.

scientific belief – knowledge- exclusive: if one religiously believes that p then one does not (or not yet) know that p. "Not yet" means for science "perhaps later" and for religion "in the life after death" (1Cor 13:12). Another reason is the neglect of the voluntary component, i.e. the idea that the strong warrant can be reached by rational reasons of our cognitive faculties alone. There are similar views to those of Plantinga and Torrance in what is called Reformed Epistemology. Alston's "Perceiving God" is a spiritual awareness and has a high degree of security for the person involved, although it is not knowledge according to Alston. His main point is that Christian Mystical Perceptual Doxastic Practice is rationally engaged since it is a socially established doxastic practice and therefore a reliably justified belief (p.2 and 194).However, this is not the place to go into that.[55]

Without such exceptional situations of insight or illumination by God's grace, the voluntary component in religious belief is decisive. For times of temptation and at the beginning this holds true even for the apostles, for saints and for the seers. The importance of the voluntary component is stressed appropriately by Thomas Aquinas: "Now the intellect assents to a thing in two ways. First, through being moved by assent by its very object, which is known either by itself as in the case of first principles which are held by the habit of understanding, or through something else already known as in the case of conclusions which are held by the habit of science. Secondly, the intellect assents to something, not through being sufficiently moved to this assent by the proper object, but through an act of choice, whereby it turns voluntarily to one side rather than to the other: and if this be accompanied by doubt and fear of the opposite side, there will be opinion, while, if there be certainty and no fear of the other side, there will be faith."[56] We agree with Thomas Aquinas that the voluntary component is essential for religious belief.[57]

[55] A. Plantinga, Warranted Christian Belief, Oxford 2000, 256. T.F. Torrance, Theological Science, Oxford 1969, 12. For a critical discussion of the views of Reformed Epistemology see W. Löffler, Einführung in die Religionsphilosophie, Darmstadt 2006, 87-97. For a criticism of Plantinga's and Torrance's views with regard to God's existence see Weingartner, Knowledge and Scientific and Religious Belief, ch.12 and Weingartner (ed.) Scientific and Religious Belief, Dordrecht 1994. For verification after death see Hick, Theology and Verification, Theology Today 17 (1960) 12-31. W.P. Alston, Perceiving God, Ithaca 1991.

[56] Aquinas, ST - Summa Theologica, II - II, 1,4.

[57] For details on the voluntary component see cf. Weingartner, Knowledge and Scientific Religious Belief, ch.11.

5.5 Is it rationally justifiable to require corroboration or confirmation by testing consequences for the CRD of a BS?

Since belief in hypotheses and laws is an essential part of SBS, corroboration and confirmation are necessary because universal hypotheses or laws cannot be verified. Should we also require this for RBS in order to achieve a degree of credibility higher than the lower bound? And can this claim be satisfied?

Some religious believers will answer the second question with "Yes", because the belief will be confirmed in the next life (after death). However, the position defended here is that both questions can be answered with "Yes" despite referring to this life here and now.

We know from science that corroboration and confirmation are concerned with universal hypotheses and laws. Accordingly, we have to look for universal statements or principles of RBS. They can be of two sorts: Universal statements describing facts and universal norms prescribing facts.
It is difficult to find good examples of the first sort in the scriptures (Old and New Testament). Most of the factual statements describe concrete actions of people or concrete events. On the other hand, there are many examples of universal norms: The Ten Commandments, the Golden Rule, the Principle of Charity.

5.6 How can a universal norm be tested in order to be confirmed or disconfirmed? There are several possibilities:
1. By testing whether its consequences agree with the judgement of one's conscience or that of many people.
2. By testing whether its consequences satisfy basic values.
3. By trying out the two ways given to man for free choice.

Ad.1 Conscience

Assumption: An empirical basis of natural right is that "the requirements of the law are written on their hearts, their consciences also bearing witness." (Rom 2:15). Example: The consequence "person x should not lie to person y (at place s and time t)" of the universal norm

(commandment) "You should not lie" is confirmed by the conscience of person x and similarly with other universal norms.

The judgement of conscience presupposes and uses both, some evident conceptual principles and some evident action principles. Examples of the first are: What is obligatory is permitted or what is permitted is not forbidden (these are also valid in every system of Deontic Logic or of Jurisprudence). Examples of the second one are: If person a honors person b then a does not rob b or if person a loves person b then a does not betray b. It can be shown that the commandments 4-10 of the Ten Commandments (Ex 20:2-17. Deut 5:6-21) follow logically from the principle of charity, provided such evident action principles are presupposed.[58]

Ad. 2 Basic Values

Assumption: Survival (life) and health are basic values of all living organisms. Survival (life), health, living in a society and in peace, increasing one's knowledge according to abilities and interests, giving and receiving love are basic values of all human beings. The fulfilment of such basic values by some member of a human society is certainly bound to rules which forbid members to hinder the satisfaction of basic values of other members of the society. This means that the achievement of such basic values has to be legitimate in this sense.

Examples of general principles satisfying basic values: "Love your neighbor as yourself." (Lev 19:18; Mt 22:39; Gal 5:14). "So, in everything, do to others what you would have them do to you." (Mt 7:12; Lk 6:31).

Concrete actions which obey these universal principles satisfy basic values and in this sense confirm these principles.

Ad. 3 Trying out the two ways

"If you choose, you can keep the commandments, and to act faithfully is a matter of your choice [...] Before each person are life and death and whichever one chooses will be given." (Sir 15:15,17). The two ways are described by St. Paul:

[58] P. Weingartner, Logisch-Philosophische Untersuchungen zu Werten und Normen. Bern 1996, ch. 9.

> "The acts of flesh are obvious: Sexual immorality, [...] , idolatry, witchcraft, hatred, discord, jealousy [...] selfish ambition, dissensions, envy, drunkenness etc. [...] The fruit of the spirit is love, joy, peace, forbearance, kindness, goodness, faithfulness, gentleness and self-control." (Gal 5:19-25).

Trying out one way will show whether it agrees or disagrees with the judgment of one's own conscience, or whether it violates or supports basic values. In this sense the second way is confirmed by conscience and basic values.

6. The Question of Circularity

6.1 There is some difficulty from which all RBS seem to suffer. One important criterion used for keeping the degree of CRD for RBS above the lower bound, is that the text is revealed by God. However that this text is revealed by God is said only by this very text itself and is not guaranteed by some external source. Thus, there is no ultimate external resource that can provide an absolute justification for the RBS as based on a text as revealed. When it is said that Moses or the apostles have been witnesses and provided proof by observation (hearing the voice of God or seeing and hearing Christ) then the problem is that we know this only from that very text which should be made credible by Moses or by the Apostles. It seems that this kind of circularity cannot be avoided.

6.2. It is an interesting fact, however, that this kind of circularity has a striking analogy in Science. An example is the experimental tests for corroborating or confirming the Special Theory of Relativity. The underlying methodological assumptions are these:

(i) Physical measurement instruments (rods and clocks) are real physical objects, not ideal entities.

(ii) Because of (i) they have to obey physical laws. But which ones? According to the Copenhagen-Interpretation, the quantum-mechanical phenomena have to be measured by a measurement instrument "outside" of the QM-System which obeys the laws of Classical Mechanics. Einstein refused this view for both, his Theory of Relativity and for Quantum Mechanics. Therefore he required (iii).

(iii) The measurement instruments (rods and clocks) applied to test the Special Theory of Relativity (SR) have to obey the laws of SR:

It is plain that assumption (iii) leads to a kind of circularity: The measurement instruments which are used to test SR presuppose and obey the laws of SR since they are real physical objects and not idealized independent measures.[59]

Does this mean that such a test is unreliable? As the facts show, this is not the case and moreover reveals that this is the only way to test predictions of SR, i.e. time- dilatation (tested by Hafele and Keating[60]) and mass-increase (tested by particle accelerators).

6.3 The situation in both cases of circularity is this: The test for the confirmation of SR or RBS is made by either instruments ruled by SR or events described by RBS, in neither case independent of SR or RBS respectively. In general such a situation reveals a fact which we have learned from the Theory of Relativity: We cannot have an ultimate external measurement apparatus outside and separated from the physical system to be measured by it.

Similarly, there is no external and absolute last resort, available to us now, and independent of RBS, which could be used to confirm RBS. Every test of SBS or of RBS is relative in this sense without being unreliable.

[59] For a hermeneutic and an epistemological circularity see Polkinghorne, The Faith of a Physicist, p.32.
[60] J.C. Hafele / R.E. Keating, Around the World Atomic Clocks, in: Science 177 (1972), 166-170