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Nieuwentijt's Defense of the Bible

[Nieuwentijt w obronie Biblii]

Streszczenie: W swojej fizyko-teologicznej książce Nieuwentijt chciał: 1) udowodnić istnienie Boga i Jego atrybutów ze struktury przyrody; 2) udowodnić prawdziwość Biblii, pokazując, że wiele najnowszych odkryć naukowych można znaleźć również w Biblii; 3) pokazując, kim jest Bóg i pokazując wiarygodność Biblii w kwestiach wiedzy przyrodniczej, Nieuwentijt chciał pokazać, że duchowe przesłanie Biblii dotyczące osobistego zbawienia również powinno być godne zaufania, a zatem ateiści i niewierzący powinni przyjąć to przesłanie.

Summary: In his physico-theological book Nieuwentijt wanted 1. to prove the existence of God and His attributes from the makeup of nature; 2. to prove the veracity of the Bible by showing that many recent scientific discoveries can also be found in the Bible; 3. by showing who God was and by showing the reliability of the Bible in matters of natural knowledge, Nieuwentijt wanted to show that the spiritual message of the Bible related to personal salvation should also be trusted and thus atheists and unbelievers should give in to this message.

Słowa kluczowe: Nieuwentijt; fizykoteologia; Biblia; eschatologia.
Keywords: Nieuwentijt; physico-theology; Bible; eschatology.

Bernard Nieuwentijt/Nieuwentyt, an accomplished scholar and researcher, was a committed Christian who wanted to prove the existence of God using the physico-theological approach which was the reigning theological paradigm in the 17th and 18th centuries in Europe. He published his voluminous book, *The right use of the contemplation of the world, demonstrated for the conviction of atheists and unbelievers* (1714), at about the same time as William Derham published his *Physico-theology* (1713)

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and *Astro-theology* (1714). Although Nieuwentijt's book had several editions in the 18th century and its content was summarized in Chataubriand's famous *Genius of Christianity* (1802), Derham's books became more widely-known than Nieuwentijt's. They both covered somewhat similar scholarly ground at fair detail – which can be explained by the fact that both of them were inspired by John Ray's *The wisdom of God manifested in the works of the creation* (1691), although later in the century some physico-theological works were much more extensive to mention only Lesser, Pluche, and Saint-Pierre.

The existence of God

Nieuwentijt limited himself to the proof from natural philosophy since: 1. there had been already many metaphysical proofs against atheism; 2. the contemplation of God's work led many to renounce their atheism; 3. this method was convincing to unsettled minds, if not for atheists (0.27),[2] and 4. the Bible provides many examples of using natural theology (0.28). A general rule he proposed to prove the existence of God was: if someone sees that 1. many, 2. various, 3. unconscious things, 4. each, 5. invariably observing the same rule, 6. act and move on many occasions, 7. not one being able to move by itself, 8. nor produce any effect, 9. which effect (motion) is produced only when no element is missing, 10. even though the effect is important – could he imagine that these things are formed to that end and brought together without any design to produce the observed effect, and thus by no rational Agent? As an example, Nieuwentijt described the situation when someone finds in a deserted place a working watch. No one would doubt that the watch was made by an "understanding/intelligent Artificer" (*verstaande Maker*) and he could not convince himself that the watch was a product of mere chance (0.29); no man would say that the watch was made without any design (17.18). The watch example appears in his book several times, but it was popularized

[2] A contemplation/chapter number is followed by a section number from Nieuwentyt B., 1714). An English translation, (Nieuwentyt B., 1718–1719, vols. 1–3), excludes most sections related to the interpretation of the Bible, and so does the French translation, (Nieuwentyt B., 1725), although cuts are there even deeper. In this way, these two translations misrepresent Nieuwentijt as a scholar interested in religious issues rather than a theologian who uses science to reinforce religion. The first German translation, (Nieuwentyt B., 1732), follows the original very closely; the second German translation, (Nieuwentyt B., 1747), takes liberties with the text by modyfying, adding, and excising it all in the interest of making the reading more understandable than the original; admittedly, the original is not a paragon of clarity by its overuse of overlong and complicated sentences.

later by William Paley.[3] Nieuwentijt's general rule states that the makeup of natural structures cannot be explained by allowing the elements of these structures to be put randomly together and by happy accident create this structure, but they are the work of a designer. The larger and the more complicated the structure, the more powerful designer is needed and there is nothing larger than the world, the cosmos, an immense structure of structures that required the divine hand to become a reality. What is structural about a structure is the fact that its elements have to be put totherer in a specific way and if any element is missing, the structure becomes disfunctionl (today, Michael Behe popularized for this requirement the phrase, "irreducible complexity").

Just as the presence of a watch would indicate the work of a watchmaker, Nieuwentijt wanted to argue from the makeup of the visible world about the existence of a wise, mighty, and merciful God (0.29). Those who would not be convinced by the presentation of real animals, plants, etc., should imagine mechanical imitations of the same things: mechanical horses, birds, etc. – would they maintain that the latter were just products of mere chance? (0.30; 23.4). Hardly, and yet the mechanical imitations of the real entities are incomparably less impressive and complex than the originals.

In hundreds of pages, in the first part of the book, Nieuwentijt meticulously described the anatomy and physiology of the human body in which he was well-versed as a practicing physician. In the second part, he presented the detailed descriptions of some elements of flora and fauna. In the third part, he was looking at the cosmos, in particular at the solar system. In all these popular-science type of presentations, the message was clear. His information came from state-of-the-art science and recent scholarly literature, but also from his own observations and experiments (Vermij R.H., 1987, pp. 81–89), although occasionally it is rather uneasy to read his reports on some experiments as, for example, the one showing that without air animals die: animals were placed in a chamber from which air was pumped out in which process birds "fall into convulsion of limbs after which death follows" (18.26).

Whatever is the level of detail, there is always an undeniable presence of design, the design which not only shows the wisdom of the divine Designer, but also His goodness and care for His creation. All that was designed was designed not to show off the divine skills, but was designed for the good and benefit of the creation. Most frequently, Nieuwentijt stated it

[3] To the extent that Paley's work was considered as "a mere running commentary" on Nieuwentijt's book (Blakey R., 1859, p. 222) and "a version or abstract" of Nieuwentijt's work (Chambers R., vol. 2, p. 197).

through rhetorical questions. For example, when describing the structure of the human body, he asked about the tongue: can anyone produce a machine that without bones or parts is able to produce such a vast variety of motions? (3.5). Could it be generated by chance? About the mouth, he said that there are there so many parts in such a small place working so very well together: could they all be set up without any design of the Maker only by chance? (3.8). About the throat, he asked, should can anyone imagine that such a wonderful structure of the throat was organized by chance without any end or goal, and it obtained this design to such a use?" (4.4). He did not shun from praising the extraordinary wisdom of the Maker for making the covering of the belly to assist the bowel movement in discharging unneeded matter (4.14). God also wisely and graciously ordered that humans cannot control the workings of their intestines except of the last part, the rectum, which is under human control to prevent many inconveniences of which otherwise no one would be spared (4.14). About nature: can any philosopher in all his wisdom produce a grain of wheat or a blade of grass from earth or even explain how it happens; how can he say that this is all done by chance? (21.4). Similarly, even in small details of the makeup of birds: "Can anyone think that one feather (not to go any farther for now) without any goal and intelligence has gotten its structure, its hardness, and also its feathered strength, its peculiar material and lightness, its form, and, among other things, its exact place on the wing of a bird where it can be useful, and that it has some other properties that make it fitful for a bird as the means of flying?" (23.17). The divine design transpires on any level: the glory of the great Creator of animals "does not appear less in the worship-worthy manner in a Gnat, a Fly, a Flea, or a Mite in cheese, than in the making of the creation of the biggest elephant." The wisdom and goodness of the Creator shines "as clear as the sun" particularly in the complexity of the animals visible only through the microscope (23.41). In a thought experiment, he spoke about using several powders of various colors mixed in oil. Different proportions and configurations of the particles of these powders are used to make plants, animals, etc. Can anyone say that these particles of powder were put together by chance? (26.33).

In the view of the plethora of such testimonies "desperately blind must be the one who in all of this cannot see the Supremely-wise Creator" (3.11); "if someone can see in all of this no design of the Creator, so is his blindness to be lamented" (6.11), as repeatedly stated by Nieuwentijt.

Physico-theology is really a teleological proof, the proof that hinges upon the preeminence of final causality. Most of Nieuwentijt's examples are, we can say, obvious cases: lungs are for breathing, kidneys to filter out

urine, feathers allow birds to fly, plants, fish, and animals are for food, winds clear air, they bring rain to dry places (435), they power windmills and ships (19.22). Only infrequently Nieuwentijt touched upon cases which are less obvious, for example, the fact that mountains collect vapors in the air and turn them into springs and streams (20.43); therefore, by God's design, mountains are distributed troughout the earth (20.69). The terrifying lightening purifies air and cools down overheated air. The sound of thunder is the voice of God to awake those assured in their safety (19.41). The sea exists to receive waters from rivers and preserves them from corruption by salt; it also enables trade, without which Holland would be poor (20.74).

The problem with teleology is that everything should be explanable in terms of a design, even divine design. How about apparently useless things? Some criticize that so many different kinds of rock were unnecessarily created. What is not needed now, said Nieuwentijt, may be needed in the future (21.22). However, such an explanation would not always be satisfactory. The makeup of a fly is astonishing, but why do flies even exist? What about snakes, poisonous plants, ferocious animals? What about natural disasters, earthqukes, vulcanoes, floods, fires?

This is the theodicy problem for all physico-theologians and most of them faced it by trying to provide answers. Not always were these answers convincing, not infrequently they elicited ridicule.[4] One way of avoiding it was later proposed by Maupertuis who tried to find the divine hand primarily in the most general laws of nature and he proposed one such law, convincingly or otherwise, in the form of the least action principle. Another way is found in Nieuwentijt, it is simply avoiding the theodicy problem altogether. He obviously saw unpalatable, even evil, elements of the world. He spoke about excessive burning mountains, awful inundations (21.31), about horrible fire-belching (*afgrysselyke Vyer-brakingen*) of Etna (22.18), about an awful force of storms and hurricanes (19.22), about ill effects of being stung by the tarantula as "a great evil" (*groote kwaad*) (14.34), about deteriorating corpses and excrements as "disgusting and pernicious inconveniences" (*walgelyke, en verderfelyke ongemakken*) (21.12). However, nowhere did he try to justify them by the divine design. At least, he did it, as it were, imperceptibly. Many times he spoke about God's wisdom surpassing human comprehension. He considered the nature of the union of the body and soul to remain unintelligible and incomprehensible (16.1). He devoted the last contemplation/chapter to what was unknown and likely would remain unknown and unintelligible. He commanded Newton on

[4] Some rather gratuitous mockery against Nieuwentijt was waged for the sake of *ein billiger Spass* in (Freudenthal H.,1955, pp. 458–459).

his admission of being unable to understand the cause of gravity (Nieuwentyt B., 1720, p. 39). In this vein, implicitly, he said that the problem of theodicy is impenetrable to humans and thus it should not be raised.[5]

Although physico-theological proof was the most important, Nieuwentijt mentioned in a very cursury fashion two other proofs for the existence of God. One was from the univeral agreement: historians say that in the soul of wild and barbaric nations there is a concept of divine being even in a dark, not fully developed form. Nieuwentijt argued that atheists were also included in that number: they must admit that there is in them a persistent and nagging thought of God who should be feared and this fear is why they argue against God's existence. They don't make any effort to argue against the existence of the Pegasus of a golden mountain, thereby showing that the concept of God is not just a creation of human imagination (16.12).

Another proof is from the first cause. Motion is not a property of bodies since they can be at rest or when they are in motion, the can stop moving, but not by themselves. Body is an extended substance without any power in itself; thus, a body cannot be the first cause of motion; this cause must be incorporeal and infinite to move bodies in the entire universe; infinitely good to give life to all animals (27.23).

In Nieuwentijt's world, all bodies were composed of smallest particles of various kinds.[6] These particles were indestructible on account of what he called the law of imperishability (*onverslytelykheit*): the smallest particles retain their form (27.5), or, as phrased in a more theological way, these particles will be preserved in the same condition by God (29.6). Also, there is an innumerable amount (*ontelbaar getal*) of particles in the world (28.11), or: an innumerable multitude (*ontelbare meenigte*) of hundreds of thousands of millions of particles (28.12); there exists a collection of untold/inexpressibly many (*onnoemelyk veel*) varieties of particles (28.13). Never did he say that this number is infinite. This is all the more significant because of his sensitivity to the problem of infinity as testified by his treatment of infinity in the context of infinitesimal calculus in his three Latin treatises published in 1694–1696 (the nature of infinity was scrutinized particularly in the third treatise, *Considerationes secundae*). And hence, the world is finite. Complex as it is, does it require an *infinite* Cre-

[5] "On Nieuwentijt's account, silence is sacred as it results from our awareness of our limited knowledge of God's creation" (Ducheyne S., 2007, pp. 707–708).

[6] Nieuwentijt did not call them atoms; he did mention the word "atoms" once when referring to blind Epicureans saying that the world arose randomly from their unfathomable atoms or indivisible particles (26.38). He may have thought that by using the word "atoms" for his particles the reader could associate his views with the atomists.

ator for its existence? It appears that the infinity of God's attributes Nieuwentijt did not derive from his physico-theology. One such source can be simple artithmetic. God can think about any finite number and since there is an infinity of numbers, the divine mind must be infinite. The same argument could, actually, apply to the human mind,[7] but the difference is that a person can think about a number of any magnitude, but the human mind would not be capable to hold all these numbers at the same time. This limitaton does not apply to God who can think about all numbers at the same time, and hence, God's cognitive abilities are infinite. In fact, an argument to that effect had been made by Augistine (*De civ. Dei* 12.17).

It is also worth observing that all proofs are not equally acceptable. In fact, the proof proposed by Spinoza should be rejected. Nieuwentijt very briefly refuted his proof in *The right use* leaving more complete rejection to another work (0.11), and in fact, he did it in his posthumously published *Grounds of certainty, or the right argument of mathematicians, in the imaginary as well as in the real* (Nieuwentyt B. 1720).

The Bible

Proving the existence of God from the makeup of nature was for Nieuwentijt the first, in a way, a preparatory step of his endeavor. The second goal he set for himself was proving the veracity of the Bible (0.31). He wanted to show, that some statements made in the Bible can be confirmed by the science of his times and point to the fact that many things that science recently discovered could already be found in the Bible. In that respect, the Book of Job was the most frequently quoted part of the Bible since He who authored the Book of Job had more knowledge of nature than the entire humankind (18.45). Of course, that shows that the Bible is of divine provenance since only all-knowing God could inspire the writers of the Bible to record things unknown at their times. In respect to the fact that the size of the sphere of stars is immeasurable, the Scriptures "speak according to the most accurate truth (*de naeuwkeurigste waarheit*), as in respect to many other natural things" (25.70); more generally, when the Word of God speaks about natural things it surpasses all thoughts of the wise of the world (21.46) and through science, Nieuwentijt wanted to confirm how accurate the Scriptures are. The reason he wanted

[7] Nieuwentijt himself stated that by the grace of the Creator, the human imagination was able to represent a quantity greater or smaller than any perceived quantity (Nieuwentyt 1695, praefatio, p. [4]).

to show that the Bible was a reliable record was to enhance the validity of the message of the Bible that could not be directly confirmed through the efforts of natural theology, namely the spiritual message of personal salvation and the necessity for anyone to turn their life around by accepting Christ.

According to Nieuwentijt, many connections can be established between science and Biblical record. For example, the skin of teeth mentioned in the Bible (Job 19:20) is a reference to the recently discovered enamel of teeth (3.2).[8] Job 21:23-24 speaks about milk-vessels to be full of milk, which, according to Nieuwentijt's long argument, can only be milk-channels or milk-veins (*vasa lactea*) discovered in 1622 (5.5). Jer. 4:19 writes about the pain in the walls of the heart. Nieuwentijt saw the walls of the heart as references to the muscles that form the heart; he found less credible the interpretation that the entire ribcage can be meant here (6.7). Job 27:3 distinguishes his breath from God's breath in his nose when there was no knowledge about the stretching power of air (7.10). Job 4:15 says that hair stood up because of fear, which was the recognition of the connection of fear and the reaction of the body (8.13). When Christ healed a deaf man with speech impediment by saying "be open" (Mark 7:34), He referred to opening the nerves controlling the tongue and hearing (9.5). Job 30:30, my joints are burned with heat, is a reference to the moisturizing of the joint, the phenomenon unknown in these times (11.25) and only recently discovered in the form of the mucilaginous humor (today called synovial fluid or synovia) in the joints between two cartilages to reduce the friction of the cartilage during movement (11.21). In many verses, taste is ascribed to the palate, not only to the tongue (15.5), which was confirmed only recently (15.6). There are Biblical references to the weight of air (Job 28:25) (18.45), the elasticity of air (Is. 42:5), and to pumping out air (18.48-49). Nieuwentijt found Biblical allusions to cloud formation (20.31-32). Without mountains there would not be any rivers (20.44) and he found such a function of mountains to be clearly indicated in several verses (20.49-51). How is it that the seas do not overflow the land since all rivers discharge their waters to them? It is because of the counterbalancing circulation when the sea water evaporates, vapors are collected by mountains to become streams and rivers (20.79) and an allusion to this circulation is made in Eccl. 1:7 (20.80). It is remarkable that by sowing seeds that fall to the ground in various position, roots are always growing down and the stalk is growing up (24.27) and a reference to this phenome-

[8] A controversial character of this particular example is presented in (Gysel C., 1977, pp. 214–216).

non is made in Is. 37:31 (24.28). Several verses say that light moves and it moves very quickly (25.27). Light moves in straight lines (25.28) which is the property mentioned in Job 37:3 (25.28). Light is fire or carries a lot of fire (25.30), which is the idea found also in the Bible and indicated etymologically by the fact that, in Hebrew, "fire" is derived from "to shine" (25.32). Splitting the light into basic colors is alluded to in Job 38:24 (25.51). The moons (plural) mentioned in Deut. 33:14 are references to the Moon, but also to the moons of Jupiter and Saturn which no one could see at that time (25.66). Allusions are found in the Bible to the smallest particles of matter (26.34-35) and there are levels of cohesion between these particles, consider the tongue and the teeth (27.2): this phenomenon is detected under the image of God loosing His hand in Job 6:9 where Job asks God to loose His hand to destroy him (27.3).

Sometimes great deal of argument goes into an interpretation of some verses to see something in them. By a forceful interpretation Nieuwentijt found in Job 18:5 the view that fire is composed of some particles which are also parts of other bodies without burning them (22.22). After a great deal of explanation he said that Job 36:32, "contains thorough knowledge (*grondige kennisse*) and a description of the eclipse of the sun and of the moon" and hardly anyone would be able to describe these phenomena with fewer words (25.63). After considerable interpretation, the law of gravity working on planets is seen in Job 38:31 (27.19). At great length, he chemically justified Christ's statement about salt that can lose its saltiness, i.e., its ability to preserve food from spoiling (28.8). A masterpiece of spinning is his interpretation of Eccl. 12:6: remember the Creator before the silver cord is snapped or the golden bowl broken, or the pitcher is broken at the fountain, or the wheel is broken at the cistern. In his view, it is very likely that the wheel broken at the cistern signifies the circulation of blood discovered only recently by Harvey (12.7) and also nervous juice and *lympha* (12.8); the silver cord from this verse is the spine (12.10) or the *chyle* passage (12.14); the golden bowl is the membrane of the brain (12.15) or *chyle* guide/milk channels (*ductus chyliseri*) (12.19); the pitcher and the well are the two chambers of the heart (12.21) where the pitcher is the right chamber of the heart (12.22); the well in "the wheel at the well" is the left chamber of the heart (12.24).

If the Bible's literal interpretation can be defended, Nieuwentijt did it, many times over. One example is his interpretation of 1 Kings 7:23 which speaks about the sea to have 10 cubits from one brim to another and 30 cubits round about which would effectively mean that for the circular sea, $\pi = 3$, whereby the precision of the Bible was frequently questioned; however, the sea was not circular, but it was a hexagon: it was compared to the

flower of a lily (verse 26), which always has 6 petals (24.40); also, "round about" does not have to mean "circular" (24.40).[9]

Another example is the solar system. There were two solar systems used then, said Nieuwentijt, Copernican which was most convenient and by many considered to be the true system because of its simplicity. Another was Tycho de Brahe's system (25.67). However, Nieuwentijt presented all discussion in terms of the Tycho de Brahe system mentioning that concepts can also be adopted to the Copernican system (25.9). The simplicity argument was insufficient for him as an argument of veracity of any system (30.13) and he berated those who in the defense of the Copernican system were not ashamed to say that the Bible presented phenomena according to erroneous ideas of common folk (30.16). This pretty much indicates where his astronomical allegiance was, although he more carefully expressed in his book that the problem of the motion of the sun to be uncertain since the motion or rest of the sun was not shown yet with "any experiential proof" (*geen ondervindelyk bevys*) (0.23; 30.8) and he cited many authorities who expressed uncertainty in the matter with Copernicus himself being his key witness (30.10-14).

Eschatology

The most important goal Nieuwentijt set for himself was winning the hearts of atheists (deniers of God) and unbelievers (deniers of the authority of the Bible) to save their souls. As another element of convincing them about the necessity of salvation was his discussion of the resurrection of the bodies. As in the rest of the book, he wanted to limit his discussion to arguments drawn from science; that is, he only wanted to argue that the unbelievers who accept the accomplishments of science should be able to see that, from a naturalistic perspective, the resurrection is possible. This way of presenting the feasibility of the resurrection was rather unique in the physico-theological literature of the age.

The resurrection of the body Nieuwentijt understood as the restoration of the body as it was before death. The body was composed of particles which, after death, were spread all over the world. However, they were somewhere and by God's power they could again be put together to restore the body. As he stated, it is not impossible that the same Power which generates human bodies from parents can regenerate them by other means (29.4). Just as a skilled student of anatomy can put a skeleton together

[9] The hexagonal shape of the sea had also been suggested by Reyner S., p. 715.

from separate bones, so can God put the body together from separate particles (2.5). Yet, the human body constantly evolves, food is consumed, some of its particles are absorbed by the body, but not forever, which is particularly clear in the case of liquids. Consumed particles are absorbed, but other particles are expelled. Which body will be resurrected, the decrepit body of an old man? The handicapped body of an unfortunate soul? The body of a baby when the baby died? To deal with this problem, Nieuwentijt distinguished between two bodies constituting each person. The visible body (*sigtbaar lichaam*) undergoes many changes remaining the body of the same person; this is because there is in the visible body the own body (*eygen lichaam*) which does not change (29.20). The weight of a body refers to the visible body, the age – to the own body (29.21). The visible body consists of solids, fluids, and the laws governing them (29.22). The own body consists only of some solids: no fluids, no laws (29.23) because fluids and some solids come and go very easily and the laws governing bodies change over time: there are different laws governing the body at sickness than in the healthy state. Only solids, but not all solids: only bones and nerves (29.31). The problem is with the immutability of the own body. Clearly, illnesses can affect bones rather significantly. If a baby dies, the own body is undeveloped. Nieuwentijt said that the own body of someone suffering from a bone disease would be resurrected in the state before the illness. For a resurrected baby, the own body develops to its full potential after which the visible body grows around it. This, however, rather significantly undermines the argument of the immutability of the own body; moreover, what about being born already with an inherited bone disease?

Assuming that the own body does not change, it is still a physical body, which leads Nieuwentijt to investigating a rather offputting cannibalistic scenario: what if there is a cannibal feasting solely on human bodies? What happens to the consumed own bodies of the victims? First, since own bodies are bones, they hardly would be consumed, and nerves have no nutritional value (29.35). But, we may insist, what if some bones are consumed? In this case, Nieuwentijt relied on the divine intervention: God could make the bones and nerves of the eaten body pass through the body of the cannibal without being absorbed by it so that at the resurrection the original own body could be restored (29.29; 29.11). The own body of the cannibal himself would not change as the own body of every person does not change (29.29).

The differentiation between the own body and the visible body allowed Nieuwentijt to show that, from a physical point of view, the same body is restored after death. The process of the restoration would be possible only

through the supernatural power, but the material particles could be reused after death the way they were used before death – but only for the own body. As to the visible body, it would be constituted from different particles to form this body the way it should look like, so that there would be no invalids after resurrection. This differentiation allows Nieuwentijt to resolve an apparent contradiction between the physical body being resurrected and Paul's statement that flesh and blood will not inherit the kingdom of God: Paul meant the visible body, not the own body (29.39). Incidentally, this type of discussion is not consigned to the old past. Today, not quite religious authors envision immortality obtained through computers and see the possibility of a digital form of survival. A counterpart of the own body would be a pattern of the body, an equivalent of the visible would be a scanned version of a person, the vision which is also shared by some theologians.[10]

Nieuwentijt discussed at some length the physical aspect of the resurrection, but he did it to direct the infidel's attention to the viability of such a possibility. Taking this possibility seriously should lead the infidel to the kind of life to be led which would be appropriate if there is a prospect of resurrection. Arguably, this was the main goal of Nieuwentijt who wanted people to consider this prospect and choose the right avenue for the afterlife. This, however, is a religious problem and Nieuwentijt, true to the spirit of his physico-theological enterprise, did not want to venture to the discussion of this problem. He discussed the possibility of the resurrection of the body only, but not the nature of the afterlife. However, from a few scattered remarks it is clear where he stood on this issue.

Nieuwentijt said that on the views of the atheist depends "the eternal happiness or unhappiness" (*eeuwigh geluk of ongeluk*). Christians say that after death, God prepared on the other side above the stars a place of glory for them to enjoy eternal goodness and divine perfections (30.17). Christians believe in the coming of the new heaven and the new earth, so, maybe, the reference to the place above the stars is a reference to the place from which this new earth would come. He did say that the habitation of the resurrected body is not in heaven, but comes from heaven (29.41). In any event, there are two avenues opened to the resurrected person, the place of eternal happiness and eternal unhappiness. Nieuwentijt did not call the latter hell, in fact the word "hell" appeared only once and only in a quotation of Christ's statement, fear Him who has the power to cast into hell (*helle*) (Lk. 12:5) (21.43). It is clear that for Nieuwentijt this was a place for the unrepented, the place with which the vengeance of God is

[10] See (Drozdek 2015).

associated (29.42). In his own self-interest, an atheist should submit to God since he must admit that if there is a just God, He will punish disobedience and blasphemy (13.25).

If the eternal consequences can be so severe, why do atheists refuse to believe?

1. Inordinate self-love expressed in self-gratification and independence (0.3). 2. An inordinate ambition to show themselves courageous and being unafraid of childish things (0.5). 3. Ignorance (0.8) which can be fought with providing adequate knowledge, and Nieuwentijt took upon himself this task by writing his book. 4. Too great a conceit about their own wisdom (0.10). Moreover, although in his view less importantly, 5. the reliance on rough sensory data, e.g., considering the sun to be small since it looks small (0.13). It is worth noticing that Nieuwentijt was guilty of such a reliance at least in his defense of geocenticity. 6. Wrong knowledge of nature which stems from basing this knowledge of wrong assumptions (0.15-16; cf. 16.8); the problem is akin to the already mentioned ignorance. When extending the problem of wrong knowledge beyond nature, it can also be stated that some corrupt men through their confused judgment (*verbystert oordeel*) view good as evil and evil as good and make wrong use of their passions (17.1). 7. Rejection of final causes (0.20), and 8. Disputes for disputes' sake which just amounts to quarrelsomeness (0.22). Although the rejection of final causality is listed among less important causes of atheism, it should be at the top of the list. Burgeoning science, when investigating nature, tried to stay within the limits of natural laws often treating the divine participation as an afterthought or as something that should be removed from the boundaries of science. Thus, nature was turned into a well-oiled machine which was moved by its own natural laws.[11] In any event, one advice Nieuwentijt gave was that if someone is not convinced about the wisdom of God at work, he should check if he wants to be convinced. If not, we can only lament over his most unhappy state; if he does want and is not convinced, he should humbly ask God that he can be. Nieuwentijt knew a philosopher whose such prayer on his deathbed was heard (20.78).[12]

To reuse the watch example, he said that it is incomprehensible why people who readily acknowledge a maker of a clock say that a much more complicated mechanism as nature is the work of accident. Maybe if they

[11] "Nature was increasingly seen as indifferent and aimless, ruled by mechanical and blind laws of nature. Nieuwentyt did not want to oppose the influence of natural science, but he was also unable to give up his faith" (Braeckman J., 1997, p. 16).

[12] Nieuwentijt reported a few cases of witnissing such personal conversions, cf. (Vermij R.H., 1988, p. 221).

saw something on a small scale, they would think that they may understand it, but if something is on a much larger scale, they rather deny any wisdom in it than recognize the power of the wisdom so much greater than theirs. Maybe they diminish the wonder of nature by the fact that they see it every day. Maybe this is due to the hidden judgment of God who was constantly blasphemed (20.87). This is where Nieuwentijt saw his role: to convince the unbelievers that their unbelief is unjustified and it has unwelcome consequences. He did it by showing that on the large and the small scale the hand of divine Designer can be seen. Then, he showed that the Biblical descriptions of physical phenomena are confirmed by science and in many cases these descriptions were well ahead of discoveries made by science. So, the Bible should be believed in respect to the natural phenomena.[13] By implication, it should also be believed in respect to the spiritual aspects of life and of afterlife and thus unbelievers should also trust and embrace the Biblical spiritual message of salvation.

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[13] Nieuwentijt's defense of the Bible is based on an impressive and deep scientific foundation as done on the basis of the new experimental philosophy and linked it to physico-theology (Vermij R.H., 1988, p. 226).

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