SCIENTISM AS A FUNDAMENTALIST WORLDVIEW: WITH A SPECIAL REFERENCE TO ATHEIST FUNDAMENTALISM

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Abstract

The paper deals with fundamentalism related to a scientist worldview and atheist fundamentalism as a corollary of a scientism. Although contradictory at first glance, the link between fundamentalism and scientism is revealed as something firm. The reason for this is the fact that scientism believes that science is the only and best answer to any question, a claim that is completely contrary to the nature of science itself. Similarly, atheist fundamentalists (Dawkins, Hitchens etc.) claim that any question related to God and religion can be resolved in the confines of science, which represents a clear misinterpretation of both science and religion. The link between scientism and fundamentalism is traced to the separation of science, understood as general inquiries about the world and all the beings in it, including ourselves, into hard and soft sciences or into natural sciences (or only science is some cultural backgrounds) and humanities. Contrary to this, the authors claim that it is impossible to come to a full understanding of the human being and the world around us without the joint effort of natural and human sciences.

Keywords: fundamentalism; science; scientism; atheist fundamentalism.

1. The fundamentalism of scientism

The syntagm scientist fundamentalism seems contradictory, as should be the case with atheist fundamentalism. On the one hand we have science,
where evidence play a key role in adopting or rejecting a belief. As one the most important roles of science is its application, each hypothesis that we aim to establish as a scientific hypothesis has to be tested and confirmed on a scale that is large enough that the hypothesis is usable. We then hold onto this hypothesis until it is disproven or until a more useful way of dealing with the same problem is discovered. On the other hand, we can define fundamentalists as those who hold onto their beliefs regardless of evidence and claim that their worldview is the only one that is and should be acceptable. Consequently, science should be incompatible with a fundamentalist worldview. And to no surprise, it indeed is. For example, an article published in *Science* on April 7, 2022 brings the results of measurements of the mass of W boson, which are such that they could disprove the Standard Model of Quantum Mechanics. (Cf. CDF Collaboration et. al., 2022: 170-6) Scientists have no problems with evidence.

On the other hand, scientism is a view that is highly problematic as it is a plain dogma. Why? Because the claim that science can answer all questions is a pseudo claim according to the rules set out by science. Namely, it cannot be either proven or disproven so it should be counted as meaningless, especially by those who put all their faith in science. This claim is a pure metaphysical claim, along with the underlying naturalistic worldview. If we observe it carefully, we can see that scientism itself is a fundamentalist claim. It does not leave a space open for competing opinions, as it strives to encompass everything it claims to be meaningful (much like some distorted versions of liberalism).

Similarly, atheists like to say that they came to their view about these issues after careful rational consideration, finding no evidence to support the claims of theism. As Richard Dawkins says in the preface to his *The God Delusion* “atheism nearly always indicates a healthy independence of mind and, indeed, a healthy mind” (Dawkins, 2006: 3). Some atheists even label themselves as brights, with bright being defined as “a person whose worldview is naturalistic (no supernatural and mystical elements)”. This group even claims that it aspires “to an egalitarian civic vision”. In the vision of these individuals, naturalism is of course something that came about as a result of scientific findings (http://www.the-brights.net/).

Modern western culture is essentially shaped by the Enlightenment, in which science has played a decisive role. One of the most famous misinterpretations of science was that it should replace religion. The Enlightenment
has had two faces since the 18th century. One face is the liberation of human being, expressed, for example, in Immanuel Kant’s definition “Enlightenment is man’s emergence from his self-imposed nonage. Nonage is the inability to use one’s own understanding without another’s guidance” (Kant, 2006: 17). The other face of Enlightenment is scientism with the idea that scientific knowledge is unlimited: it also includes man and all aspects of our existence and our life-world. Scientism is the hubris of science, the presumption to know how to shape our society and our life world. It presumes that scientific knowledge should dictate the right choices at both the individual and societal levels. We ought also to remember that enlightenment through science also presupposes that the imposition of the scientistic worldview is to be prevented. Susan Haack has highlighted six characteristics of scientism:

1. Using the words “science,” “scientific,” “scientifically,” “scientist,” etc., honorifically, as generic terms of epistemic praise.
2. Adopting the manners, the trappings, the technical terminology, etc., of the sciences, irrespective of their real usefulness.
3. A preoccupation with demarcation, i.e., with drawing a sharp line between genuine science, the real thing, and “pseudo-scientific” imposters.
4. A corresponding preoccupation with identifying the “scientific method,” presumed to explain how the sciences have been so successful.
5. Looking to the sciences for answers to questions beyond their scope.
6. Denying or denigrating the legitimacy or the worth of other kinds of inquiry besides the scientific, or the value of human activities other than inquiry, such as poetry or art. (Haack, 2012: 77-8)

It is remarkable that scientistic attitudes and anti-scientific attitudes are similar in one point: both ways of thinking misunderstand the character of science. But in the way of misunderstanding, they differ fundamentally. The latter do not understand the value of the scientific methodological apparatus at all, while the former only greatly overestimate its value. It seems to us that it is easier to deal with anti-scientific attitudes. Refuting scientism requires subtle reasoning and mature judgment. A clear distinction between science, pseudoscience and scientism can only be drawn by scientifically sharpened judgment and prudent analysis. For the critical approach against scientism,
it is important to note that science accomplishes amazing things, but it does not perform miracles.

Deification of science must be avoided, especially because it has a long tradition and a history of negative impact. Some distinguished authors (Popper, Lakatos, Agazzi) consider Galileo Galilei to be the founder of European science. Because of the Inquisition trial, which the Catholic Church instituted against Galileo, he became a cult figure or even a martyr of modern science. There have always been historians of science (P. Duhem, Paul Feyerabend) who have pointed out that from the state of research at that time Cardinal Roberto Bellarmino was right. Church and cardinal were on the side of the common sense and reasonable argumentation, Galileo has speculated too much. Wolfgang Wieland has as much sympathy with Cardinal Bellarmino as with Galileo. Wieland (2011) has shown that Cardinal Bellarmino proposed a “Golden Bridge” as mediation in the trial against Galileo, which Galileo in turn rejected. Bellarmino proposed to Galileo to interpret the thesis of motion of the earth and standstill of the sun “not absolutely but ex supposition”. Consequently, Galileo had rejected “hypothetical argumentation”, which is seen as a cornerstone of modern science. In the history of science, paradoxically, the dogmatist Galileo is exalted, and Bellarmino is wrangled as a reactionary, although he was much more advanced in methodological aspects. We must not forget that Galileo represented the view that the sun is still, at the centre of the world, something that we know today to be a plain falsity. If Galileo had been open to the proposal of hypothetical thinking, and had not insisted on the absolute truth, we would have one less problem in the history of science. A longer discussion of this issue can be found in Stark (2016: 163-6) or in Finocchiaroin (2009: 68-78).

Scientism remains the real successor of Galileo by claiming namely that the scientific method is the only reliable method to reach certain true knowledge. Consequently, Alex Rosenberg (2011: 6) equates science with scientism, a distinction under these terms is not for him not needed. The economic theorist Friedrich August Hayek attacked during the Second World War in essays and later in a book (Hayek, 1955) the blind optimism of science that had developed from the Enlightenment, e.g., in Anne Robert Jacques Turgot and Condorcet, via Saint-Simon and Comte, then further via left-wing Hegelians, Feuerbach, Marx and Engels to the Vienna Circle, and had led in consequence to a socialist planned economy and Soviet totalitarianism. Atheistic
materialism in the form of scientism became a fundamentalist pseudo-religion. Eric Voegelin has interpreted the positivist tradition of the French Enlightenment materialists, Marx and Darwin as a symptom of “de-divinization”, alienation and dehumanization, so that in Germany a direct, if crooked, path led from the monism of a Haeckel or Ostwald to the National Socialism of a Hitler. (Voegelin, 1948: 494)

2. Scientism as a source of the sciences vs. humanities divide

The history of the 20th century should not be interpreted merely as a confrontation between democracy and totalitarianism, but also between humanism and scientism. Dilthey's answer to positivism “Nature we explain, psychic life we understand” has had a fatal impact on the history of separation of sciences and humanities. Dilthey's distinction between “explanation” (Erklären) and “understanding” (Verstehen) led to the radical bias that all human experience divides naturally into two parts:

1. the explanation of the natural world, in which “objective necessity” rules, and
2. understanding, in which the inner experience of life i.e., hermeneutics dominates.

British scientist and novelist Charles Percy Snow has radicalized this segregation by claiming that there are two cultures, that of natural sciences and of humanities that are totally separate from one another, like two separate galaxies. Concerning two different cultures, C. P. Snow argues:

I believe the intellectual life of the whole of western society is increasingly being split into two polar groups […] at one pole we have the literary intellectuals, who incidentally while no one was looking took to referring to themselves as ‘intellectuals’ as though there were no others […] At the other scientists, and as the most representative, the physical scientists. Between the two a gulf of mutual incomprehension — sometimes […] hostility and dislike, but most of all lack of understanding. They have a curious distorted image of each other. Their attitudes are so different that, even on the level of emotion, they can’t find much common ground. (Snow, 1959: 4)
Snow actually claims that there is no communication between natural sciences and humanities. According to him, scientists understand more of culture than representative of the of “liberal arts” from nature. When it comes to morality, Snow thinks that scientists represent a clearer and more decisive ethical position than members of liberal arts. The blame for the totalitarian excesses of modernity is essentially attributed, according to Snow, to literary intellectuals. He reports shocking examples of poets, sympathizing with fascism and the Nazi regime (William Butler Yeats, Ezra Pound, Wyndham Lewis). Snow asks: “Didn’t the influence of all they represent bring the Auschwitz that much nearer?” (Snow, 1959: 7)

Perhaps we may give critical remarks to these claims of C. P. Snow, because many writers at the time of fascist and communist totalitarianism of the 20th century have strongly advocated human rights, or respect for human dignity (we will mention only the winners of Nobel Prize for Literature Thomas Mann, Alexander Solzhenitsyn, Herta Müller, Heinrich Böll, Vaclav Havel, Czeslaw Milosz).

Unfortunately, C. P. Snow is ignoring the fact that the vast majority of physicists during the Cold War were in the service of communist ideology. In the western, democratic states the physicists were actively involved in the armaments policy. Scientists, not pacifists, have been given the task of securing peace by setting up the most modern weapons (Feyerabend, 1993: 19).

It seems that the dualistic separation of natural sciences and humanities can no longer be stopped, because natural and technical sciences are part of our life world and substantially affect human beings. The rapid development of biotechnological science over the last 20 years has confronted us with the fact that scientific research is intimately tied to ethical questions. The future and destiny of the human species may be endangered by biotechnological research.

However, current scientific research could lead humankind into an irreversible situation where it is no longer possible to return to the status ante quem. In this light, we can no longer insist on the separation of the biomedical sciences and the human sciences, because both analyse and interpret human beings. The definition of human beings as “self-interpreting animals” (Taylor, 1985: 43) requires a hermeneutical transformation of scientific research.

Rorty and Feyerabend have argued for a dedivinization of the sciences in the form of scientism. “Beginning at the end of the 18th century, we tried to
substitute a love of ourselves for a love of scientific truth, a worship of our deep spiritual or poetic nature, treated as one more quasi-divinity” (Rorty, 1989: 6).

In his critique of philosophical positivism based on the “Myth of the Given”, the highly influential American philosopher John McDowell claims – with reference to Aristotle – that humans not only have the capacity to interpret our natural world, but are also capable of acting rationally, of constituting moral life, i.e., moral realism. Phronēsis, practical wisdom, is the central determining concept in Aristotelian practical philosophy (i.e., ethics and politics). McDowell showed, in his book *Mind and World* (1994), how Hegel’s model of “second nature” can serve as a basis for a correction of some one-sided discussions regarding contemporary physicalism and the neomaterialist naturalistic explanation of phenomena of nature. McDowell asserts, citing Aristotle and Hegel to support his thesis, that:

... our nature is largely second nature, and our second nature is the way it is not just because of the potentialities we were born with, but also because of our upbringing, our Bildung. Given the notion of second nature, we can say that the way our lives are shaped by reason is natural, even while we deny that the structure of the space of reasons can be integrated into the layout of the realm of law. (McDowell, 1994: 87)

“Second nature”, in addition to culture and morality, also refers to human achievements in the natural sciences and the whole constellation of causal reasoning they depend on, as well as the system of knowledge and education in the natural sciences. “Second nature” is namely achieved as a result of our education (Bildung) in the field of natural sciences. To resist scientism, McDowell argues for a re-enchantment of the world. This is possible through responsible education (Bildung).

**3. Atheist fundamentalism as a corollary of scientism**

If we couple scientism with atheism (and these two attitudes indeed go hand in hand) we get fundamentalist attacks on religion. The main reason why atheist fundamentalism is a corollary of scientism is the fact that most of the proponents of atheist fundamentalism see science as the only source of explanation for phenomena of any kind. Atheist fundamentalism would
be better described as antitheist fundamentalism, as then there would be no contradiction here. However, some of the fiercest attackers on any kind of religion (e.g., Dawkins) wish to portray themselves as disinterested scientists that simply do an honest day’s work, and not as fervent proponents of some worldview attacking their enemies. Dawkins even explicitly says this when commenting on the brights movement “I am simply curious, as a disinterested scientist, to see what will happen” (Dawkins, 2003).

In *The God Delusion*, Dawkins clearly sets his target, namely he argues against the claim that “there exists a super human, supernatural intelligence who deliberately designed and created the universe and everything in it, including us” (Dawkins, 2006: 31) with an addendum a few pages later “I am not attacking any particular version of God or gods. I am attacking God, all gods, anything and everything supernatural, wherever and whenever they have been or will be invented” (Dawkins, 2006: 36). This stance is still not problematic from a point of view of logical consistency. However, it does not take much effort to find unsound reasoning in Dawkins’ argumentation. Namely, while discussing agnosticism, Dawkins says that a position of permanent agnosticism is untenable, because “Either he exists or he doesn’t. It is a scientific question; one day we may know the answer, and meanwhile we can say something pretty strong about the probability” (Dawkins, 2006: 48). Although the first part is most definitely true (here there can be no middle ground), the second part is close to ridiculous and is a true example of Dawkins’s fundamentalism. If the existence of God was a scientific question, i.e., a scientific hypothesis, we should be able to at least formulate the procedure of verifying or falsifying such a hypothesis, regardless of our current technical abilities. The existence of life in the Andromeda galaxy can be a scientific hypothesis as we are able to specify what we should do to verify or falsify it (go there and see). Contrary to this, the existence of God cannot be formulated in any similar way. We cannot say what it would mean to disprove it and if we, somehow, discovered a mighty being, this being could hardly count as God as we, with our minute abilities, succeeded in locating or discovering it.

So, why does Dawkins do this. It is hardly possible that he is so close minded that he does not see this fact. He does this because this makes his job easier. His entire strategy in *The God Delusion* is to build up a strawman and then to attack it, not dealing with something that is actually a viable interpretation of God or religion. His other favourite method is to draw unlicensed
inferences, even though this is his favourite argument versus proponents of religion. So, we find that: “Mendel, of course, was a religious man, an Augustinian monk; but that was in the nineteenth century, when becoming a monk was the easiest way for the young Mendel to pursue his science. For him, it was the equivalent of a research grant” (Dawkins, 2006: 99). Dawkins here goes from stating that a scientist was religious to stating that he was religious only for pragmatic reasons. There are of course, on the face of it, no reasons why Dawkins could not be right about this, but he would have to offer evidence (maybe excerpts from Mendel’s private letters where he expresses his doubts about God or religion or something similar), but he of course does no such thing.

He continues with the claim that no scientist today could be bothered with being religious, a claim that is another clear example of his fundamental outlooks. Although many examples can be stated against such a thesis, we will here (for brevity’s sake) only mention the book Great Minds Don’t Think Alike, edited by Gleiser (2022) where we find productive conversations between leading scientists, philosophers, historians, and public intellectuals on many hot issues of our time, including God and religion. Related to this, one point shows how far is Dawkins willing to go. Namely, he labels evolutionists that accept the view that science and religion are separate affairs as the Neville Chamberlain school of Evolutionists, a claim that is one of the high points of his fundamentalism because it labels everybody that does not agree with him as a coward or an amoral individual. Another good example of his unlicensed inferences is the following quote: “Darwinian evolution, specifically natural selection, […] shatters the illusion of design within the domain of biology, and teaches us to be suspicious of any kind of design hypothesis in physics and cosmology as well” (Dawkins, 2006: 99). Not only that he does not (and cannot of course) offer arguments that the whole natural selection was created by a supreme being, he goes on to claim that physics and cosmology should be wary of any design arguments because of natural selection. This would further imply that the same regularities are in place in every field of science, something that has yet to be proven.

However, not only Dawkins is deserving of the fundamentalist etiquette. Similar, or maybe even worse can be found in the book God is not Great by Cristopher Hitchens. By looking at the claim that “Religion has run out of justifications. Thanks to the telescope and the microscope, it no longer offers
an explanation of anything important.” (Hitchens, 2007: 282) or that “We have first to transcend our prehistory, and escape the gnarled hands which reach out to drag us back to the catacombs and the reeking altars and the guilty pleasures of subjection and abjection.” (Hitchens, 2007: 283) we can see that the same thought pattern that can be found in Dawkins is reiterated in Hitchens, amplified by the style of Hitchens’ prose. Furthermore, one of the chapters of Hitchens (2007) is titled “The Metaphysical Claims of Religion Are False”. This does not fit well within the overall framework of scientism, as all metaphysical claim should not be counted as either true or false, but rather as plain nonsense. However, if Hitchens is willing to admit that some metaphysical claims can be true, it means that he is replacing some metaphysical claims with some others that he thinks have more merit (a move that is very common in many religions or sects). However, this undermines the entire goal of his book, namely seeking a new Enlightenment with science as a centrepiece of it.

Dawkins has, in the meantime, during a debate with Archbishop of Canterbury Rowan Williams at Oxford University in 2012 come out with a surprising claim that he is an agnostic. Sir Anthony Kenny, who was chairing the debate asked Dawkins: “Why don’t you call yourself an agnostic?” To which Dawkins replied that he did. At this, Kenny protested: “You are described as the world’s most famous atheist.” Dawkins then said that he was “6.9 out of seven” sure of his beliefs: “I think the probability of a supernatural creator existing is very, very low,” he explained. Although the difference is only slight, it comes to show that Dawkins has toned down his fundamentalist argumentation, at least for the duration of the debate. (cf. Edwards, 2012)

However, in his 2019 book Outgrowing God, Dawkins shows us that he has kept a lot of his earlier way of argumentation. So, we find that “Some people who call themselves agnostic think it’s equally likely that gods do, or do not, exist. I think that’s rather feeble […] We can’t prove there are no fairies but that doesn’t mean we think there’s a 50:50 chance fairies exist. More sensible agnostics say they don’t know for sure, but think it’s pretty unlikely any sort of god exists. (Dawkins, 2019: 14) Agnostics that claim God’s existence is unlikely are more sensible than those that say it is 50:50. Why? We also find the unlicensed inferences that were all over the God Delusion, but they are toned down slightly. Consequently, Dawkins says that “Several of the founding fathers of the United States, men like Thomas Jefferson and James Madison,
were deists. My suspicion is that, if they’d lived after Charles Darwin instead of in the eighteenth century, they’d have been atheists, but I can’t prove it.” (Dawkins, 2019: 14)

We now come to the point of motivation behind writing such books. Pure, disinterested, science has to be excluded for obvious, previously mentioned, reasons. The most likely scenario is that Dawkins’s book is a reaction to some present trends in the general public. More precisely, a reaction against tele evangelism.¹ More specifically, ministers that act like they have an unrestricted access to God’s words and immediate contact with God so their words should be heeded without opposition. Such trends are indeed harmful to both religion and the common sense and should be criticized. However, in doing this, Dawkins loses any and all compass and sinks into a (badly formulated) critique of any and every religion. As the Mcgraths say in their book (2007), Dawkins’s book The Blind Watchmaker (1986) gives us offers a critique of arguments for the existence of God that are brought about by William Paley that is “fair, gracious and accurate” (Mcgrath & Collicutt Mcgrath, 2007: 25). The God Delusion was obviously an attempt to widen this critique to all arguments including the existence of God. However, “[h]e is clearly out of his depth, and achieves little by his brief and superficial engagement with these great perennial debates, which often simply cannot be resolved empirically” (Mcgrath & Collicutt Mcgrath, 2007: 25). Dawkins used a string of unlicensed inferences through his argumentation, as though he claims the following:

- There are priests that do not fulfil their duties
- Therefore, no priest fulfils his/her duties
- Therefore, Church as an institution is meaningless
- Therefore, religion is meaningless
- Therefore, God does not exist

Although this is a simplified sketch of his argumentation, his frequent commitment of the logical mistake of illicitus processus licenses such an interpretation.

Mcgraths (2007) wonder why was a book as The God Delusion even needed, wasn’t religion supposed to be gone as soon as mankind got out of its infancy. (Mcgrath & Collicutt Mcgrath, 2007: 8) Dawkins would say that the book was needed because religion is so widespread and he had to stand

¹ We thank prof. Ingolf Dalferth for this point.
in the defence of common sense. Mcgraths are indeed right in comparing this Dawkins’s agenda to Soviet propaganda concerning religion. (Mcgrath & Collicutt Mcgrath, 2007: 21) The main problem of Dawkins’ approach is that he is proposing to replace teaching about religion with naturalistic teachings. He is not trying to replace a metaphysical hypothesis with a scientific one, he is trying to replace a metaphysical hypothesis with another metaphysical hypothesis that suits him better. Mcgraths offer an alternative interpretation of the purpose of *The God Delusion*. Its goal is to help atheists to build up arguments for atheism and prevent their faith in atheism fading. As it is highly doubtful that the book could ever persuade any religious believer to change his/her beliefs, this interpretation is not without merits. We could even go a step further and call this book the cornerstone (or the scriptures) of atheism, where the entirety of their creed is concentrated. Some of them consider the book science and others consider it as nothing close to science, as is also the case with religious writings.

**Final words**

To summarize, the goal of the paper was to show that science is a kind of endeavour that does not allow itself to be dogmatized. In other words, due to the nature of scientific investigations, there is no point in treating a certain scientific proposition like a dogma that cannot be challenged, as the cornerstone of serious science is the claim that each proposition can and should be challenged if there are any reasons to do so. This is why blind faith is science is misdirected, as science cannot offer us any goals or purposes in life, although it can help to make our lives better to a significant degree. The proponents of scientism fail to grasp this fact (intentionally or unintentionally) and treat science as a kind of a pseudo-religion. In this paper we showed that such an approach is untenable for various reasons.

Consequently, proponents of scientism aim to replace the conventional religions with their pseudo-religion of science and fail miserably by doing so. In the course of this endeavour, they give no real credit to the merits of religion and our second goal was to show that most of the attacks on religion by proponents of scientism miss the mark and should be discarded as a very shallow materialist metaphysics. In order to examine the relation between
science and religion and their complementarity, a lot more is needed than bad arguments and unlicensed inferences. Only a true appraisal of a human being as a thinking and judging subject involved both in both the empirical and transcendental realm can yield important conclusions to settle this matter.

References


SCIJENTIZAM KAO FUNDAMENTALISTIČKI SVJETONAZOR: S POSEBNIM OSVRTOM NA ATEISTIČKI FUNDAMENTALIZAM

Sažetak

U radu se govori o fundamentalizmu vezanom za scijentistički svjetonazor i ateističkom fundamentalizmu kao posljedici scijentizma. Iako se na prvi pogled čini da su scijentizam i fundamentalizam proturječni, detaljniji pogled otkriva da je veza između njih čvrsta. Razlog tomu jest činjenica da scijentizam vjeruje kako je znanost jedini i najbolji odgovor na svako pitanje, što je tvrdnja koja je potpuno suprotna prirodi same znanosti. Slično tomu ateistički fundamentalisti (Dawkins, Hitchens itd.) tvrde da se svako pitanje vezano za Boga i religiju može riješiti u okviri ma znanosti, što je očito pogrješno tumačenje i znanosti i religije. Ispitivanje geneze odnosa između scijentizma i fundamentalizma vodi nas do razdvajanja znanosti shvaćene kao opće istraživanje o svijetu i o svim bićima u njemu, uključujući i nas same, na tvrde i meke znanosti ili na prirodne znanosti (ili samo znanosti u nekim kulturnim krugovima) i humanističke znanosti. Nasuprot tomu autori tvrde da je nemoguće doći do potpuna razumijevanja čovjeka i svijeta oko nas bez zajedničkoga napora prirodnih i humanističkih znanosti.

Ključne riječi: fundamentalizam; znanost; scijentizam; ateistički fundamentalizam.