

# Fear For Future? Notions of Truth in Climate Adaptation

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*Abstract:* - There is no homogeneous climate politics due to different perceptions of how the world is. The political and the moral plurality refer back to a global variety of transcendent notions of truth apart from climate knowledge. Claims of validity result from religious and secular worldviews on man and nature. But the pure existence of images and narratives can not explain why people – and nations – follow them or not. The article asks how we construct trust through the perception of inner-worldly transcendence. It focuses on the icon “Blue Planet”, the notion of intergenerational justice and the construction of narrative climate concepts in climate fiction (cli-fi) as expressions of a collective destiny. These notions do not describe the world as it is, but they are necessary to create a will to believe and a sense of community. Today’s key issue is not to convince the remaining climate deniers, but to turn the already believed truth of climate change into action guiding trust. This article is an attempt to scrutinize the climate-worldview-nexus in the secular sphere with theological methods. It will try to critically examine the climate discourse as a matter of action-oriented ethics.

*Key-Words:* - Climate Adaptation, Environmental ethics, nature and society, secular faith, pragmatism, blue marble

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## 1 The Will to Believe in Climate Knowledge

The pluralism of late-modernity naturally makes both religious and secular traditions into sources for environmental consciousness and climate activism [6, p. 321]. Mankind of the 21<sup>st</sup> century is building up a global ethos of climate justice and environmental awareness. However, non-religious approaches manifest themselves not only in the secular sphere, but also within the religious contexts. According to [20] and [2] Muslims respond to the quest for sustainability through NGOs and green mosques. The other way around [6] describes how religions teach the secular about care for nature. The very specific and new situation is that we must take into account quite complex interactions between diverse traditions when we ask how to adapt to climate change.

While modernists of the 20<sup>th</sup> century have argued that the pure reason can bridge between diverse traditions [37, pp. 103-106], we know today that the effects of rational arguments are still limited, [7]. We have to deal with cultural patterns, (non-)religious convictions, radical emotional worlds and scientifically as well as economically shaped

worldviews [37, pp. 108-110]. Thus, climate adaptation is the intercultural task to structure the diverse images and world views according to their specific epistemological significance.

When we become aware of the diversity of so many images and action guiding narratives, the question arises, why do people follow only certain images and leave others aside? How do people use their worldview as a tool not to analyze concrete risky situations? This question is not about knowledge, but the acceptance of it [34, pp. 158-185]. Proponents of nuclear power plants know the apocalyptic scenarios of devastating accidents; and opponents know the utopia of a CO<sub>2</sub>-free and environmentally friendly energy generation. But for some the risk of an accident is too high, for others that of further CO<sub>2</sub> enrichment in the atmosphere. Hence, why does the Green Party in Finland believe in nuclear power [24], but the Green Party in Germany does not? Is this about world-view or is it just politics?

For modern man, however, the problematic aspect of belief is less rational than existential. According to William JAMES, rational reasons for any belief do not necessarily lead toward belief either. Rather, it is life that relates us to a concrete belief so that it

can become a living option for our own life direction, [36; 4]. In James' pragmatist structure of belief the difference between a religious belief and any other conviction does not matter. Instead, there are *varieties of religious experience* [12] and thus, *the will to believe* [11] refers to basically any form of faith.

One can observe this structure of belief when referring to convictions about technology: European countries have widely denied investing in genetic engineering for agriculture, although there are great opportunities, such as to grow drought-resistant crops (Siegemund: 2012). But in contrast to African and Asian countries, Europe did not face any nutrition problems. This is why the fight against Golden Rice was strictly guided by European NGOs, even though the research itself was done in Switzerland and Germany, [3]. The point is not the quest for a proven risk, it is the lack of an existential necessity for this type of agriculture. In Europe, there was no will to believe in genetic engineering for agriculture. Instead, a belief to resist, developed. It might be that the situation will change due to the need for climate mitigation.

Climate change has already led to new farming methods and thus, the will to believe in genetic engineering as a means of climate adaptation could develop in future. Today we understand climate mitigation as a holistic call for changes in the development of the global society and religion is a means of transformation towards more sustainable societies [21]. But the crucial point is not any *religious belief* in relation to climate, but the *trust in the truth* of climate change. This trust can be created in religious and non-religious ways.

As long as people just know that there are solutions addressing the specific problem of climate change anywhere in the world, they will not become trustees. There must be an existential need to make the knowledge into a living option *for them*. Knowledge must turn into trust – and our task today is to find out the conditions of this turning point with regard to climate knowledge.

## 2 Theologizing Climate Awareness

I will show how to turn pure knowledge into existential trust. This section concentrates on three secular notions of truth. The icon “Blue Planet”, the idea of intergenerational justice and the construction of climate narratives in cli-fi are notions in which one can distinguish between knowledge components, the production of concern and affection and finally the emergence of existential certainties.

The difference between religious and non-religious notions of truth is that the first interpret the non-constructed parts of human existence as something like an assembled destiny (Fügung), whereas for secular environmentalists destiny is just another word for complex processes which we have to manage. But the secular approach to complex issues such as climate adaptation does not get along without inner-worldly transcendent perceptions.

The problem is that our ability to predict natural states is limited in principle. For example, we cannot calculate which path a single drop of water will take in a waterfall. We can thus say in a laboratory situation how a specific detail of reality should behave in terms of climate change, but the historically embedded reality will be very different. The human mind thus only incompletely recognizes the laws of nature, so that within the framework of scientific explanations, there are varieties of options and conditions that actually occur. Thus, the varieties of experience follow out of these varieties of options within our scientifically shaped world.

We know that the water as a whole falls down, but not on which way every single drop will fall. The concrete manifestation of climate change is therefore not a scientific but a historical event in which we currently find ourselves. For this reason, we can understand it as something special for us, and not only as a sequence of physical-meteorological facts or stochastic processes, [22].

Thus, it is no contradiction to describe climate change scientifically and at the same time to regard it as a product of chance. Likewise, it is possible to describe our world as intentionally arranged (Fügung) without getting into contradiction with its physical conditions. Chance and arrangement are therefore the difference between a secular and a religious interpretation of existence, but both add transcendent perceptions to the physical relationships. In the case of secular notions we speak about inner-worldly transcendence.

### 2.1 The Blue-Planet-Icon and the Longing for Happiness

The icon “Blue Planet” allows us a very special and unique perspective on the habitat in which mankind lives. This perspective is neither universal nor generally accessible. It is rather a technically driven perspective caused by space travel.

The first Blue-Planet-Tale is from Yuri Gagarin, the cosmonaut from Soviet Union (SU) who became the very first human to journey into outer space in 1961. It is not yet clear whether this space journey was something like a religious experience to Gagarin or not. The saying that he did not see any God up there

originates from Khrushchev's talk at the Central Committee of the Communist Party of the SU about an anti-religion campaign, and Gagarin is said to have been Orthodox, [10].

During the flight with Vostok 1 Gagarin was the first person to see our planet from a cosmic perspective. From his orbit, he radioed his impressions referring to the "beauty of our planet" and thus indirectly transcended the ideology of a politically divided world from a literally higher vantage point.

However, the collective perception of the planet from a cosmic perspective started in the 1960s, when the US sent several research satellites into Earth and lunar orbit. In 1966, the Lunar Orbiter sent a picture of the cosmic Earth rising above the Moon, a view that had never been seen before. The black and white image of the "Whole Earth" (1967) and, most prominently, the color image of "Eclipse" taken by William Anders from Apollo 8 in 1968, followed, [35].

Whenever astronauts see the planet from outside, they emphasize the singularity of the Blue Planet and make it into an icon. The iconic character is that it represents what it designates. One cannot distinguish the designated reality and the represented entity because the earth appears objectified as a manageable spaceship. People are no longer in a territory, but in the inner space, created by the technical gaze. Thus, a globally perceived environment develops. The perception of an environment common to all depends on this epochal grasp of art.

Now humanity itself became the content of its technical artifacts, after Sputnik and the further satellites laid a technical web around the planet and defined it holistically as a coherent surface. According to Marshall McLuhan this means the abolition of nature in favor of environmental contexts: "Nature ended and art took over. Ecology is art" [26, p. 242]. Thus, ecological thinking begins as soon as the planet has been given the status of a work of art. But wasn't this done by the belief in creation much sooner? The difference is that the Blue-Planet-Icon has no artist except humans who produce the icon on the basis of the world found. Thus, we can regard the icon as an outcome of chance and at the same time as our task.

The satellite view from the decade after Sputnik (1957) has already been a turning point in eco-aesthetics, with which the world became the mysterious, coherent surface of the Blue Planet. In 1957 space technology was still mixed with a fear of the unknown, that is of what is beyond human imagination.

Later on "Earth Day" was introduced in the US in 1970 with which the planetary icon became a devotional motif of an ecological sensitization, a fetish object for global sentiment. The planet was celebrated and the earth turned from a scientific-technical object to a kitschy object of postmodern popular piety. It also became a place of longing for happiness.

The optimization of the icon on a visual level took place, when the initial black-and-white radio images were subsequently reproduced in color by astronauts on the Apollo missions, using high-quality Hasselblad cameras. In particular, the color images of the globe from 1968 onwards burned their way into the collective memory, [35].

We shall not underestimate the symbolism of technical visualization. For the image of the world globalized in the photographs of the Blue Planet has decisively brought forth the modern ecology movement. Actually, there is a deep link between Apollo 8, environmental consciousness and present climate activism as well as Space X.

Today we need to understand these effects together with the postcolonial rise of ecological awareness. Many indigenous traditions regard the earth as a goddess or they celebrate it as the place of human origin. According to the aborigines in Australia, the land does not belong to people, but people belong to the land. In the same way humans became the content of earth through the cosmic perspective.

The Indian Theologian Wati LONGCHAR [23] has popularized the creed to "Mother Earth". We cannot understand the worldwide resonance of indigenous belief without the reception of space technology. The cosmic view on the planet has prepared the western civilization to join in the traditional adoration of the earth. The blending of Blue Marble and indigenous faith caused a re-spiritualization of nature.

Space projects and the cosmic era of humankind are always a matter of metaphysically charged technology. But they are also a matter of the quasi-religious charging of nature with new meanings. The Blue Marble has made nature into the environment, but what does this mean for climate awareness?

When we deconstruct the icon, then the Blue Planet is produced through space technology, mediated by mass media and anchored in the collective memory for at least two generations. Hence, it is a representation of a representation.

Is this the place where we live? Yes it is, but only, if we decide to adore the blended technical, spiritual, medial and environmental phenomenon. That means we cannot look at the icon indifferently. The

adoration comes immediately together with its perception and exactly this is why we must say that the icon is produced by space-technology, screen-based perception, global encounter and mass media. What we adore, is the total of this – we just call it nature and the outcome of the adoration are environmental consciousness, climate awareness, a sense of community and a vague assumption of fragility.

All these aspects do not represent nature or the world as it is, but a constructed reality. The blue color has no added value in contrast to gray or green, and fragility is not a statement about the physical conditions of the earth, but about our relation to it.

NASA initially only released partial images of the fascinating cosmic earth sphere. Therefore, the American computer experts "Merry Prankster" and Stewart BRAND launched a campaign to release the mythical image, which they believed would have a profoundly mind-altering effect on the popular mindset. Their efforts were successful, and in 1968 the image of the "Whole Earth" graced the cover of the Whole Earth Catalogue, symbolizing the holistic ecological effect manifested in this work. According to the self-image of its creators, this catalogue corresponded to a tool that surpassed earlier world projects, such as encyclopedias, and that had an amplifying function for a delimited ecological consciousness, [38].

But it is also true that associating computers with natural systems was one of the most important practices in which the Whole Earth project helped to pave the way for the digital revolution. Thus, ecological sensitization is not only an outcome of (space) technology, it also makes it to further develop.

The legacy of the icon lies in the linkage between an extraterrestrial technology and the earthly awareness for the place where this technology comes from. The icon has brought about thinking in contexts, environments, ecological systems and the world as a blending of knowledge, contextual information and the search for happiness at the place we live.

In this sense the singularity of planet earth is made into a transcendent idea, because as of now we cannot skip the icon even though we know its mode of production. There are areas of the design process that remain undiscovered.

Thus, we remain permanently oblivious to the chain of technological processes behind the icon when we imagine the planet on which we live. The hidden conditions of the design remain transcendent for us, so that we can make use of the icon as it is stored in our collective memory.

This is exactly the reason for its action guiding strength. Transcendence consolidates the newly visualized globalization, as the icon of the Blue Planet appears everywhere where a holistic approach is somehow to be connoted. And the task of climate adaptation fulfills all necessary conditions that allow us to draw on the memory.

In 2002 NASA produced "Blue Marble" [27], "the most detailed true-color image of the entire Earth to date. NASA provides even a receipt how to produce the icon:

"The cloud image is a composite of two days of imagery collected in visible light wavelengths and a third day of thermal infra-red imagery over the poles. Global city lights, derived from 9 months of observations from the Defense Meteorological Satellite Program, are superimposed on a darkened land surface map."

Thus, Blue Marble is a collection of technically produced representations increasing the iconic meaning of the postmodern object of global piety.

In conclusion, the imagined singularity of the earth is an action guiding standard and not a testimonial about reality. This goes parallel to creation belief based on the book of Genesis. NASA tells just a different story based on space technology and the digital, whereas the biblical narrative is based on oral tradition, scrolls, the invention of the book and printing.

However, the transcendent notion of Blue Marble makes us act. With space travel, the whole of the world has come into the picture. In view of the media's conveyed cognition, that we live on a fragile planet, we have started to develop survival strategies based on this specific realization.

Hence, it is not only climatology or geological findings that motivate us to deal with the environment in this or that way, but the image of the earth in our collective memory. The image also defines the conditions for climate adaptation. As long as we describe the human-earth-nexus in the mode of fragility we will treat the planet as our habitat and not as nature which would be a mere counterpart of man.

Climate awareness cannot deal with the earth as it really is, because we cannot describe reality apart from our perceptions and we do not know what the essence of this complex system "earth" could be. It rather deals with the Blue-Planet-Icon that allows us to believe in an earth that we would like to live on. Paradise is the religious word for this, the secular feeling refers to a place of happiness. Hence, we are motivated to work for happiness even though the gaps in our knowledge about this place remain.

## 2.2 Intergenerational Justice and Fictive Dialogues with the Unborn

Parallel to the turn of nature into the environment we have started other entities than the existing humans taking into account. The authors of [31] and [5] mention that non-human species as well as ecosystems became relevant for moral decisions so that today we even ask whether robots could be granted moral agency. Hence, we describe values such as justice as something that also belongs to other entities than ourselves.

Justice is Plato's highest cardinal virtue, and John Rawls sets justice as the authoritative virtue, which, however, must not violate the freedom of the individual:

"Justice is the first virtue of social institutions, as truth is of systems of thought. A theory however elegant and economical must be rejected or revised if it is untrue; likewise laws and institutions no matter how efficient and well-arranged must be reformed or abolished if they are unjust. Each person possesses an inviolability founded on justice that even the welfare of society as a whole cannot override. For this reason justice denies that the loss of freedom for some is made right by a greater good shared by others." [28, p. 3]

The inviolability of a person is linked to its dignity and therefore, injustice can be understood as an offense against dignity. Hans JOAS [13; 14] says that the belief in dignity was a secular faith. It shows that notions of the unavailable are necessary for shaping the world. Dignity refers back to the unavailability of a person, because one cannot capture the whole of another one. If we want to act just, then we must accept the inviolability of the other, who is part of the moral community.

But now we do not want to be just against other people only, but also against animals, ecosystems and the unborn. Thus, intergenerational justice means to secure the inviolability of unborn people. The point is that these people are characterized by a doubled unavailability. They neither exist nor can we estimate their thoughts and wishes. How can we guarantee justice to them?

Rawls distinguishes between "the loss of freedom for some" and "the greater good shared by others". The point is that we can understand the loss of freedom in two ways. First, it can be the freedom of us that we shall not lose for the greater good of the next generation. Second, it can be the freedom of the unborn which they shall not lose for our good. Is a sustainable future a greater good of others – and must thus take a back seat to the freedom of some

individuals today? Or does it guarantee the freedom of the unborn – and must thus be guaranteed by us?

Rawls develops two principles to the question, what principles of justice would free and reasonable people choose in a fair and equal starting situation in their own interest? In "Justice as Fairness" he describes these principles in this way:

"a) Each person has the same infeasible claim to a fully adequate scheme of equal basic liberties, which scheme is compatible with the same scheme of liberties for all.

(b) Social and economic inequalities are to satisfy two conditions: first, they are to be attached to offices and positions open to all under conditions of fair equality of opportunity; and second, they are to be to the greatest benefit of the least-advantaged members of society." [29, p. 42]

The last condition is the so-called difference principle. The first principle takes precedence over the second and the sub-condition equality takes precedence over the difference principle. That means it is not permissible to curtail equal opportunities in order to give more weight to the difference principle. The difference principle equalizes the random distribution of natural conditions, so that any individual is not to blame.

The crucial point is whether we count the unborn as the least-advantaged members of the moral community or not. If so, today's restrictions on freedom are to be to the greatest benefit of the unborn. But this is not self-evident.

On the basis of a pessimistic worldview any next generation will live worse than we do. But scientific cognition and technical progress can also make the unborn to be much more advantaged than us, so that our generation would be the least-advantaged one.

As we do not know the end of the story, we must resort to fiction. To guarantee intergenerational justice, we need to imagine how the unborn could live. Actually, we do this via analogies. We do not know how they will live and thus we assume that their wishes will be similar to ours. Thus, we promise to guarantee our own ideas.

But are our wishes the same as those of our parents and grandparents? Why should their wants be similar to ours?

Again we anchor our action in the transcendent, and this is precisely what the imagination of unborn generations accomplish. Unlike modernists, we cannot claim that a validity of rights or a unity of the world has existed for centuries, especially since the postcolonial discourse shows that this does not correspond to historical facts. However, we can assume that our references to transcendence serve the purpose of self-assurance. We become aware of

the vertical dimension of our actions and express this through fictive dialogues with the unborn. However, the traditional religious way would have been a dialog with God.

In this way, we develop a control mechanism of our doings. Notions of truth are templates that allow us to examine whether concrete actions are consistent with our view of ourselves and the world. Whatever does not correspond to the paradigm of intergenerational justice is normatively devalued. This also guarantees that our doings are in line with the cultural patterns around.

Thus, the descriptive function of transcendence is that of a mirror for self-knowledge. While referring back to the unavailable unborn we need to ask ourselves, what we would like to live like. Thus, adapting to climate change becomes an intergenerational task to be fulfilled with fictive generations. This is similar to the well known practices of indigenous people in Papua New-Guinea [16; 17]. The difference is just that these tribals conduct fictive dialogues with their ancestors and we have the same with our successors.

Actually both, fictional dialogues with the deceased and with the unborn serve the purpose of self-assurance and to guide the plot. The German Federal Constitutional Court has already emphasized that politics has to take into account the rights of unborn generations, [18]. However, the court has only mentioned that the parliament needs to follow its own rules. But with this decision the court enables the parliament to become a transcendence-administering institution. It calls on politicians to align their decisions with the unavailable wishes of future living people such as tribal religious people align their doings with the wishes of the ancestors. Likewise we have to install the demands from the transcendent in our societal institutions. Once again secular climate management cannot deal without transcendent notions. And in this case we cannot even say clearly whether these notions are inner-worldly or not.

### **2.3 Arts, Fiction, and the Question of Conversion**

The adoration of Blue Marble and the fictive dialogues with the unborn come regularly together with apocalyptic narratives. Thus, arts and fiction play an important role in societal climate dialogues. The German movement "Last Generation" is an alliance of environmental activists with the stated goal of using means of civil disobedience to force action by the governments against the climate crisis. In August 2022 activists of the group glued themselves to the frame of the Sistine Madonna with

one hand each in the Gemäldegalerie Alte Meister in Dresden, Germany, in order to draw attention to the destruction caused by man-made climate change. Similar actions took place at the Städel Museum in Frankfurt am Main on the painting *Thunderstorm Landscape with Pyramus and Thisbe* by Nicolas Poussin, and at the Berlin Gemäldegalerie on the painting *Tranquility on the Flight into Egypt* by Lucas Cranach the Elder. A painting from the series *Les Meules* by Claude Monet at the Museum Barberini in Potsdam was pelted with mashed potatoes by two activists on October 23. Numerous similar actions have been carried out by other groups in the United Kingdom, Italy, and the Netherlands.

This juridical relevant gamification of activism makes the arts a projection surface for climate issues. But there is another form of art related to the topic: JOHNS-PUTRA [15, p. 266] has investigated how climate change has turned into climate-change-fiction (cli-fi). Novels, plays, and poetry have become societal storages of environmental knowledge. People exchange ideas, fear and hope for the future through arts.

Cli-fi and glue-activism is another step in the administration of the transcendent. Fiction allows people to exchange information about unavailable matters such as destiny or sudden misfortunes. But this fiction is regularly not separated from the physical processes, so that art has the capacity to increase or to decrease the intensity of fear and hope. Scientific truth is a probability statement, but fiction allows us to ask for human notions of truth. Through fiction we create fear for future – or hope. Cli-fi artists and activists expect that fundamental things will happen within the existing generation. Both handle according to the classical conceptualization of apocalyptic thought. But the crucial point of apocalypticism is that it does not end with a catastrophe. It is merely the warning about a coming disaster that challenges people to change their lives. The promise is that the right choice will lead to an exit out of the dangerous situation, [33]. Hence, apocalypticism is not about experiencing disasters, but avoiding them.

Starting with Laurence Manning's novel "The Man Who Awoke" [25] from 1933 about the overuse of fossil fuels and deforestation, cli-fi-literature increased at the end of 20<sup>th</sup> century. Margaret Atwood's dystopia out of the three books "Oryx and Crake", "The Year of the Flood" and "MaddAddam" [19] underlines the rising attention to the topic. Atwood votes for social and climate justice, and so the topic becomes a pattern for the recirculation of class struggle. The catastrophe is merely a disaster

of a specific economical system and not of human behavior in general. But isn't this the blind spot until today? Does climate change point to the centre of human existence or just to a special economical situation?

As long as we regard the outcome of climate change as the "unthinkable", we might not have tried to fully understand the unthinkable abysses of human existence. Amitav GOSH says that the failures of cli-fi "will have to be counted as an aspect of the broader imaginative and cultural failure that lies at the heart of the climate crisis." [9].

Thus, how can we understand imaginative failures? Failures and responsibility are moral categories, strictly linked to conscious action. Actually, the failure is related to the way of image-construction. As long as we regard world-images only as imaginations, we fail our responsibility. But we are responsible for our imaginations! For many people guiding images lose their effect immediately when they discover its constructive character. This is why literature, films, and theater cannot cause a revolution. Arts can strengthen specific societal tendencies, but they cannot trigger the same. Once people close the book or leave the theater they will lose the immediacy, which is necessary to experience something like a conversion towards active action. But how can we make it true? Actually, we can not *make* it, we need to receive the change.

### 3 The Art of Gaining Trust

After the deconstruction of being, how will climate facts become living options that allow us not only to accept the information but to follow them? Arts might be one answer, because the key issue is not to convince climate deniers. One cannot convert people who are ignorant against any argument. Our mission is not about facts, but trust in facts. How to turn the already believed facts into action guiding trust? Our point is not missing knowledge, but missing piety. We need to create trust so that climate adaptation strategies become living options. But trust is not a question of action, it is mere about the experience of what is not self-initiated. We need to train ourselves to deal with the unavailable. We will overcome our imaginative failures through the cultivation of our receptive nature.

Imaginations such as apocalyptic thought allow us to overcome our innate ability to react to hazards only when we are directly touched by them. It also makes unpopular decisions possible that will only bear fruit in the distant future. Long-term-imaginings lead us to make changes even if we

would suffer economic disadvantages in the near future. Not to lose the immediacy of guiding images means to overcome our short-term thinking. Instead, we include fate, destiny and chance into our lives.

Everyone has received his life, no one has created himself. Thus, we should not assume that the adaptation to climate change is only about action. It is about experiencing and accepting our non-initiated future. We do not know the people who receive their lives in future and we do not know how they want to live. We just have some ideas about it and I introduced three types of them. The first type is a supposed reality representing a desired state that could come true (2.1). The iconic meaning of the Blue Planet is a quest for a world we are working towards in face of multiple challenges. The second type is a number of demands and wishes that we have to find out through fictive dialogues and that guide us act in a specific way (2.2). The third type is fiction about fear and hope in arts and activism (2.3).

From type 1 to 3 the constructive character of the transcendent becomes more visible. But we can trust in these notions only as long as their constructive character remains undiscovered. The assumption that they could really come true, is obligatory.

Thus, the trust in climate action does not develop arbitrarily. In fact, the construction of the Blue-Marble-Icon and the unavailability of this desired world are not a contradiction. They are just two perspectives on the same thing, active action and passive receiving go parallel to each other.

From the perspective of those living today, melting glaciers and disappearing creatures are destiny and they have to deal with. But there is another perspective that says that all this was caused by humankind. Thus, climate change is human made from the perspective of mankind over long periods, but we receive it as destiny from the perspective of a single person or a nation today. We cannot overcome the affiliation of unavailability and human origin of climate change. The meaning of climate action is to make us receptive to happiness, justice and conversion.

While storytelling is the NASA-art of constructing the Blue Marble, believers receive the icon in a way that these constructive elements remain undiscovered. The global piety regards the Blue Planet as a gift and therefore unavailable for man. But climate awareness shall guarantee the continued existence of the icon and thus, this awareness is an outcome of the inner-worldly proclamation of fragility. The same happens with justice between the generations. Life remains unavailable, but we need to preserve the possibility for it.

There is a common sense between activists, climate deniers, and politicians: all of them assume that the catastrophe is manageable. We speak about an interplay of constructed notions, the pressure to act and the inability to take distinct action. This is why climate adaptation is an existential task and not only a rational or technical one. It is about truth, not about correctness. The notions of climate truth allow us to use our transcendent ideas as resources for action. We can even say that our confession to Blue Marble, the hope for climate justice and the activists fear for the future are constructed to motivate awareness. Thus, the unavailability of fundamental beliefs and its creative mutability belong together.

#### 4 Where do we want to live?

The fundamental scientific reasons for climate change were formulated by Svante ARRHENIUS in 1897, [1]. In contrast to the 21<sup>st</sup> century, he was interested in a better climate for the North. Therefore, climate change was a promise. The situation changed in the 1970s due to sour rain, the ozone hole and pollution of land and sea. Now, climate change became a threat and with new experiences the notion was transformed. During the last 50 years we could not slow down the process, but even though the BRIC-countries do not share the European sense of mission with regard to climate change, they have already started to adapt to it. The competition for raw materials that were previously inaccessible in permafrost and the engagement in Africa for food security are examples that the experience of change is a motivating source for the modification of our guiding images of the world. Transformation is going on practically, but can we overcome the imaginative failure and deal with our unavailable destiny?

The technically mediated uniqueness of the Earth and the media-supported claiming of the future together with a number of climate images composed by different narratives can serve to promote climate adaptation. But the crucial point is not the hard facts such as energy transition or technical innovations. It is rather the lack of knowledge of what we actually mean when we talk about the earth as a living space. One could draw the conclusion from the fact that we still see ourselves as earthly beings despite the Mars mission and the moon landing, that we would still search for the true planet earth in space. In this respect, climate adaptation happens on the same horizon as SpaceX. But neither our earthly climate adaptation strategies nor extraterrestrial experiments change the fact that we cannot let the planet tell us what to do. Climate adaptation is not about

following the will of the planet, but following our ideas of this planet. Where do we want to live? This remains our question and this is an ethical one that cannot be answered either from climatology or engineering.

Weighing up different options for action is certainly dependent on a lot of contingent factors, including questions of power and what is technically possible. But our choice of adaptation strategies does not reflect the technical feasibility, but rather the notions we have about the place where we want to be. The key issues of climate truth are less rational than existential.

#### References:

- [1] Arrhenius, Svante (1897), On the Influence of Carbonic Acid in the Air Upon the Temperature of the Ground. *Publications of the Astronomical Society of the Pacific* 9 (54), 1897, 14, DOI: 10.1086/121158.
- [2] Azmi, Nabeeha Amatullah, and Mohd Zin Kandar (2019), Factors contributing in the design of environmentally sustainable mosques. *Journal of Building Engineering* 23, 2019, 27–37.
- [3] Beyer, Peter (2010), Golden Rice and ‘Golden’ crops for beyehuman nutrition. *New Biotechnology* 27.5, 2010, 478–481.
- [4] Campbell, James (2017), *Experiencing William James: Belief in a Pluralistic World*, Charlottesville: University of Virginia Press.
- [5] Cervantes, José-Antonio, et al. (2020), Artificial moral agents: A survey of the current status, *Science and Engineering Ethics* 26.2, 2020, 501–532.
- [6] Dunlap, Thomas R. (2006), Environmentalism, a secular faith, In *Environmental values* 15.3, 2006, 321-330.
- [7] Evans, Alex (2016), *The Myth Gap: What Happens When Evidence and Arguments Aren’t Enough*, London: Transworld.
- [8] Fløttum, Kjersti and Øyvind Gjerstad (2017), Narratives in Climate Change discourse, *WIREs Clim Change*, 2017, 8:e429, DOI: 10.1002/wcc.429.
- [9] Ghosh, Amitav (2016): Where is the fiction about climate change?, In *The Guardian*, 28 October 2016.
- [10] Interfax-Religion (2006), Interview with Valentin Vasilyevich on 12 April 2006; <https://web.archive.org/web/20070809215050/http://www.interfax->

- religion.com/?act=interview&div=24 (archived 9 Aug 2007, retrieved 3 Nov 2022).
- [11] James, William (1897), *The Will to Believe*, and other essays in popular philosophy, New York: Longmans, Green & Co.
- [12] James, William (1902), *The Varieties of Religious Experience*, New York/London: Longmans, Green & Co.
- [13] Joas, Hans (2007), Human dignity: The religion of Modernity? In Joas, Hans (2007): *Do We need Religion? On the Experience of Self-Transcendence*, Boulder, CO: Paradigm, 133–147.
- [14] Joas, Hans (2021), *The power of the sacred: An alternative to the narrative of disenchantment*, Oxford University Press.
- [15] Johns-Putra A. (2016), Climate change in literature and literary studies: From cli-fi, climate change theater and ecopoetry to ecocriticism and climate change criticism, *WIREs Clim Change*, 2016, 7:266–282, DOI: 10.1002/wcc.385.
- [16] Jorgensen, Dan (2001), History and the Genealogy of Myth in Telefolmin, *Paideuma* 47, 103–128.
- [17] Jorgensen, Dan (2006), Hinterland History: The Ok Tedi Mine and Its Cultural Consequences in Telefolmin, *The Contemporary Pacific*, University of Hawai'i Press, Vol. 18(2), 233–263.
- [18] Keller, Helen and Corina Heri (2022), Klimagerechtigkeit durch Klimaklagen?, *Zeitschrift für Kritik, Recht, Gesellschaft*, 2022.1, 83–93.
- [19] Kidd, James (2013), Review: MaddAddam, By Margaret Atwood, *The Independent*, 10 August 2013.
- [20] Koehrsen, Jan (2020a), Muslim NGOs and the quest for environmental sustainability, In Andreas Heuser & Jan Koehrsen (Eds.), *Does religion make a difference? Religious NGOs in international development work*, 327–348, Nomos: Baden-Baden.
- [21] Koehrsen, Jan et al. (2020b), *How is religion involved in transformations towards more sustainable societies? A systematization*, *Historia Religionum* forthcoming, 11, 99–116.
- [22] Lemons, Don S. (2002), *An Introduction to Stochastic Processes*, Johns Hopkins Univ. Press: Baltimore.
- [23] Longchar, Wati A. (2012), *Returning to Mother Earth: Christian Witness and Theological Education. An Indigenous Perspective*, Kolkata: PTCA.
- [24] Lounasmeri, Lotta (2022), Building New Nuclear in Finland: Crises Challenging Core Beliefs around Nuclear Energy. *Journal of Energy and Power Technology* 4 (2), 2022, 1-1.
- [25] Manning, Laurence (1975, <sup>1</sup>1933), *The Man Who Awoke*, New York: Ballantine.
- [26] McLuhan, Marshall (1994), *Understanding Media: The Extensions of Man*, Cambridge: The MIT Press.
- [27] NASA (2005), The Blue Marble, [https://earthobservatory.nasa.gov/features/BlueMarble/BlueMarble\\_2002.php](https://earthobservatory.nasa.gov/features/BlueMarble/BlueMarble_2002.php) (published 13 Oct 2005, retrieved 3 Nov 2022).
- [28] Rawls, John (1999, <sup>1</sup>1971), *A Theory of Justice*, Revised Edition, Harvard University Press.
- [29] Rawls, John (2001), *Justice as Fairness. A Restatement*, edited by Erin Kelly, Harvard University Press.
- [30] Rolston, Holmes (2006), Science and religion in the face of the environmental crisis. In: R. S. Gottlieb (Ed.), *The Oxford handbook of religion and ecology*, III 2006, pp. 376–397, Oxford University Press.
- [31] Sharkey, Amanda (2017), Can robots be responsible moral agents? And why should we care?, *Connection Science* 29.3, 2017, 210–216.
- [32] Siegemund, Axel (2012), Risikowissen in der Grünen Gentechnik. Der Risikodiskurs als Weltaneignung, In Grimm/Schleissing (Eds.), *Grüne Gentechnik: Zwischen Forschungsfreiheit und Anwendungsrisiko*, Baden-Baden: Nomos, 213–236.
- [33] Siegemund, Axel (2021), Environmental Sciences, Apocalyptic Thought, and the Proxy of God, In Jan Alber (Ed.), *The Apocalyptic Dimensions of Climate Change*, Berlin, Boston: de gruyter, 125–136.
- [34] Sire, James W. (2014), *Naming the elephant: Worldview as a concept*, InterVarsity Press.
- [35] Spier, Fred (2019), On the social impact of the Apollo 8 Earthrise photo, or the lack of it? *Journal of Big History*, III(3); 2019, 157–189, DOI: 10.22339/jbh.v3i3.3390.
- [36] Taylor, Charles (2002): *Varieties of Religion Today: William James revisited*, Harvard Univ. Press.
- [37] Tulloch, Lynley (2013), On science, ecology and environmentalism, *Policy Futures in Education* 11.1, 2013, 100–114.
- [38] Turner, Fred (2021), *From counterculture to cyberculture*, University of Chicago Press.