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Who is (not) afraid of climate change. Science, essay, and fiction in the battle for saving Earth, the planet of man (essay)

Abstract: This article aims to distinguish and describe the suppression strategies used towards anthropogenic climate change. The obstacles to understanding the threads of climate change are desensitization to the phenomenon of catastrophe, the elusiveness, vagueness, and messiness of global warming, and the lack of a clear tipping point or clearly visible symptoms. People also tend to underestimate risk; they believe in human adaptability skills, and technical capabilities, such as geoengineering.

The opposite reaction is climate depression. A crucial differentiating factor is where one lives: the Global North is in a privileged position compared to the impoverished Global South. Literature and art seem to be a privileged medium for communicating the dangers of climate change, sensitizing people to climate injustice, and through emotional engagement, they can encourage people to change their habits and take real action to address e.g. climate inequality.

Keywords: climate narratives, climate change denialism, catastrophe without event, climate injustice, climate depression

Adults keep saying: “We owe it to the young people to give them hope.” But I don’t want your hope. I don’t want you to be hopeful. I want you to panic. I want you to feel the fear I feel every day. And then I want you to act.

I want you to act as you would in a crisis. I want you to act as if our house is on fire. Because it is.¹

Greta Thunberg

¹ Greta Thunberg, “Our house is on fire’: Greta Thunberg, 16, urges leaders to act on climate”, speech delivered at the World Economic Forum Davos 2019, *The Guardian*, January 25, 2019,

The end of humanity?

In recent years, a number of important books and essays of a scientific or journalistic nature have been published that foretell the end of our world or predict a significant deterioration in living conditions on Earth: *The Earth without Us* by Alan Weisman, *Six Degrees: Our Future on a Hotter Planet. Reflections on the End of a Civilization* by Mark Lynas, *Learning to Die in the Anthropocene, We're Doomed. Now What*, and *We Broke the World* by Roy Scranton, *Losing Earth. A Recent History* by Nathaniel Rich, David Wallace-Wells' *The Uninhabitable Earth: Life After Warming*, *The Sixth Extinction. An Unnatural History* by Elisabeth Kolbert, *The Collapse of Western Civilization: A View from the Future* by Naomi Oreskes and Eric M. Conway, *The End of the End of the Earth: Essays* by Jonathan Franzen, and finally *Countdown* by Mojib Latif – to name just the most famous ones.

“The climate apocalypse is coming. To prepare for it, we need to admit that we can't prevent it,”² says American writer Jonathan Franzen bluntly in his essay *What If We Stopped Pretending the Climate Apocalypse Can Be Stopped?* Roy Scranton, in the aforementioned essay *Learning to Die in the Anthropocene*, writes even more bluntly: “We're fucked. The only questions are how soon and how badly.”³

The publications I mention do not use hermetic scientific terminology but try to explain the intricate relationships in a simple and accessible way. However, they are unable to convince doubters and deniers, as well as those indifferent to the issue of anthropogenic climate change. Naomi Oreskes and Eric M. Conway note that it is easy to be skeptical of apocalyptic visions as the fanatics have always predicted the end of the world. Thus many previous crises have been averted.⁴ After all, no one has survived the end of the world so far.

There are a number of factors that make humanity unable or unwilling to accept the threat of global warming. I will try to point out some of them.

<https://www.theguardian.com/environment/2019/jan/25/our-house-is-on-fire-greta-thunberg16-urges-leaders-to-act-on-climate>.

² Jonathan Franzen, “What if We Stopped Pretending the Climate Apocalypse Can Be Stopped?,” *The New Yorker* 8.09.2019, <https://www.newyorker.com/culture/cultural-comment/what-if-we-stopped-pretending>.

³ Roy Scranton, *Learning to Die in the Anthropocene. Reflections on the End of a Civilization* (San Francisco: City Lights Books, 2015), ebook, EPUB, chapter *Introduction: Coming home*.

⁴ Cf. Naomi Oreskes, „Wstęp do polskiego wydania” [Introduction to the Polish edition], in Naomi Oreskes, and Eric M. Conway, *Upadek cywilizacji zachodniej* [The Collapse of Western Civilization: A View from the Future], trans. Ewa Bińczyk, Jakub Gurzyński, and Krzysztof Tarkowski (Warszawa: PWN, 2017), ebook, EPUB.

The devaluation of doom and gloom, and fearless catastrophe

A number of psychological mechanisms that protect against accepting “inconvenient truths” stand in the way of understanding the consequences of global warming. Research shows that

[...] ludzie mają tendencje do przeszacowywania prawdopodobieństwa zdarzenia się rzeczy pozytywnych i nagminnie niedoszacowują prawdopodobieństwa zdarzenia się rzeczy negatywnych. Na przykład nie doceniają prawdopodobieństwa rozwodu, wypadku samochodowego czy zachorowania na raka, myśląc zarazem, że będziemy żyć wiecznie, łudząc się wygraną w totolotka oraz talentami naszych dzieci. [...] Interdyscyplinarne badania przy użyciu różnych metod wykazały, że większość ludzkiej populacji (ponad 80%) wykazuje nierealistyczny optymizm. Błąd optymizmu zdaje się być integralną częścią ludzkiej natury, bez względu na wiek, płeć, kolor skóry czy narodowość.⁵

[people tend to overestimate the probability of positive things happening, and repeatedly underestimate the probability of negative things happening. For example, we underestimate the probability of divorce, a car accident or getting cancer, while thinking that we will live forever, deluding ourselves with winning the lottery and the talents of our children. [...] Interdisciplinary research using various methods has shown that the majority of the human population (more than 80%) exhibits unrealistic optimism. The optimism bug seems to be an integral part of human nature, regardless of age, gender, colour or nationality.]

This phenomenon in itself is not necessarily valued negatively, but in the case of the threat of climate catastrophe, it contributes to inaction and rejection of a bleak future scenario.

In a similar vein, Oreskes and Conway write about human adaptive optimism, which they define as:

(1) The belief that there are no limits to human adaptability—that we can either adapt to any circumstances, or change them to suit ourselves. Belief in geoengineering as a climate “solution” was a subset of HAO.

(2) The capacity of humans to remain optimistic and adapt to changed circumstances, even in the face of daunting difficulties, and even if the form of “adaptation” required is suffering.⁶

Unlimited adaptability will allow homo sapiens to survive regardless of the scale of future change, and, furthermore, the causality of humans, who

⁵ Rafał Ryguła, „Neuropsychologia optymizmu” [The Neuropsychology of Optimism], *Wszechświat*, vol. 115, no. 1–3 (2014): 30.

⁶ Naomi Oreskes, and Eric M. Conway, ““Lexicon of Archaic Terms,” entry Human Adaptive Optimism,” in Naomi Oreskes, and Eric M. Conway, *The Collapse of Western Civilization: A View from the Future* (New York: Columbia University Press, 2014), ebook, EPUB.

can influence the surrounding circumstances, is emphasized – a strong belief in our cognitive abilities: “[s]hould anything save us, it will be technology,”⁷ states the provocative Wallace-Wells. Many assume that it may be possible to find scientific solutions in the near future, such as through geoengineering. I will return to this issue briefly later in the text.

At the same time, even catastrophe itself as a phenomenon no longer scares people, as Wallace-Wells points out:

You’d think that a culture woven through with intimations of apocalypse would know how to receive news of environmental alarm. But instead we have responded to scientists channeling the planet’s cries for mercy as though they were simply crying wolf. Today, the movies may be millenarian, but when it comes to contemplating real-world warming dangers, we suffer from an incredible failure of imagination.⁸

Furthermore, Frank Schätzing stresses that we have seen almost all the tragedies on the screen, even those who have not experienced war know what it looks like up close. However, we still do not have a picture of climate catastrophe.⁹

At the same time, we have tamed various fears and imaginings of the apocalypse to such an extent that a catastrophe can even arouse curiosity. Such is the case with Austrian writer Katrin Röggla, who confesses:

Mich faszinieren Katastrophen [...]. Also in Filmen, in Katastrophenfilmen, aber auch in der Berichterstattung über real sich vollziehende Katastrophen [...]. Sei es aus Sehnsucht nach einer kathartischen Erfahrung oder aus einem aggressiven Verlangen heraus, im Ausnahmezustand die bestehende Ordnung gleichzeitig negiert und auf die Spitze getrieben zu sehen. Oder ganz einfach, weil ich mit dem Phantasma der Atomkatastrophe aufgewachsen bin und mich in diesem Genre quasi zu Hause fühle.¹⁰

⁷ David Wallace-Wells, *The Uninhabitable Earth: Life After Warming* (New York: Tim Duggan Books, 2019), ebook, EPUB, ch. “The Church of Technology”.

⁸ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. III “The Climate Kaleidoscope. Storytelling.” In the original newspaper version of the essay, published in the *New Yorker*, Wallace-Wells phrases it slightly differently: “Over the past decades, our culture has gone apocalyptic with zombie movies and *Mad Max* dystopias, perhaps the collective result of displaced climate anxiety, and yet when it comes to contemplating real-world warming dangers, we suffer from an incredible failure of imagination.” David Wallace-Wells, „The Uninhabitable Earth. Famine, economic collapse, a sun that cooks us: What climate change could wreak – sooner than you think.” *New York Magazine*, July 10, 2017. <https://nymag.com/intelligencer/2017/07/climate-change-earth-too-hot-for-humans.html>.

⁹ Cf. Frank Schätzing, *Was, wenn wir einfach die Welt retten? Handeln in der Klimakrise* (Köln: Kiepenheuer & Witsch, 2021), 24. Gradually, this diagnosis is losing relevance, computer games or films (fiction and documentary) are taking up this theme more and more boldly (e.g., the game and TV series *The Last of Us*, the screen adaptation of the vision based on Alan Weismann’s book *The Earth without Us*).

¹⁰ Cf. Katrin Röggla, „Geisterstädte, Geisterfilme,“ in Katrin Röggla, *besser wäre: keine. Essays und Theater* (Frankfurt am Main: Fischer Verlag, 2013), 7.

[I am fascinated by disasters. [...]. [In] movies, in disaster films, and in reports on disasters that really happened. [...] Maybe it's out of a longing to experience catharsis, or out of an aggressive need to see the current order negated on the one hand and pushed to its limits on the other, in a state of emergency. Or in a completely simple way: because I grew up with the phantasm of a nuclear catastrophe, I feel almost at home in this genre.]

The industry that has sprung up around the increasingly popular dark tourism is another example of the peculiar appeal of horror phenomena.

Disaster without event: the elusiveness of climate change

Philosopher Timothy Morton proposes the category of hyperobject to describe “things that are massively distributed in time and space relative to humans.”¹¹ He cites as examples: a black hole in space, the biosphere, the solar system or the sum total of all the nuclear material on earth “or just plutonium.”¹² We know that these phenomena, things and objects exist, but we do not know how to capture them with the categories available to us. Global warming is also one of the examples mentioned. And indeed, in this case we are dealing with a phenomenon that is difficult to grasp with our imagination and intellect:

Climate change is everything, a story and a calamity bigger than any other. It's the whole planet for the whole foreseeable future, the entire atmosphere, all the oceans, the poles; it's weather and crop failure and famine and tropical diseases heading north and desertification and the uncertain fate of a great majority of species on earth.¹³

– writes Rebecca Solnit. This list may seem chaotic, but it shows the heterogeneity of climate change in a good way, the apparent incompatibility of individual phenomena and trends. Illusory, because there is a dense network of connections and dependencies or even feedback between the various aspects. A change in one element can cause a domino effect, like the melting of glaciers, which is associated with a rise in the level of the oceans, a weakening of the albedo effect, methane emissions, a loss of freshwater resources, a change in ocean currents, the extinction of species or, finally, the release of

¹¹ Timothy Morton, *Hyperobjects: Philosophy and Ecology After the End of the World* (Minneapolis, London: University of Minnesota Press, 2013), 1. Hyperobjects: “things that are massively distributed in time and space relative to humans”.

¹² Morton, *Hyperobjects: Philosophy and Ecology After the End of the World*, 1.

¹³ Rebecca Solnit, “Are We Missing a Big Picture on Climate Change?,” *The New York Times Magazine. Sunday Magazine*, December 2, 2014, <https://www.nytimes.com/2014/12/07/magazine/are-we-missing-the-big-picture-on-climate-change.html>.

plagues that have remained inhibited for many years. Wallace-Wells mentions, for example, smallpox and bubonic plague viruses in Siberian ice.¹⁴

In addition, the lack of a caesura or clear turning points¹⁵ makes it difficult to imagine this kind of catastrophe. Many people in Eastern Europe can probably recall fairly accurately what they were doing on 24th February 2022. Great historical events and tragedies that shake an entire society are permanently inscribed in our sense of time and our experience, they provide a clear caesura, depriving us of our previous impression of comfort and control. This is different in the case of a climate catastrophe, as Amitav Ghosh points out:

Consider, for example, the stories that congeal around questions like, 'Where were you when the Berlin Wall fell?' or 'Where were you on 9/11?' Will it ever be possible to ask, in the same vein, 'Where were you at 400 ppm?' or 'Where were you when the Larsen B ice shelf broke up?'¹⁶

The increase in the concentration of invisible particles seems even more difficult to imagine, because, after all, many pollutants cannot be seen with the naked eye, which weakens the belief in their negative impact. This was experienced by Rafe Pomerance, one of the first climate alarmists, who in the late 1970s and early 1980s tried to get the public interested in the dangers of global warming: "insubstantiality"¹⁷ of these phenomena made it difficult to get support from senior activists, who often stood up for spaces degraded by human activity, such as landfills.¹⁸ "How did you protest when the toxic waste dump was the entire planet or, worse, its invisible atmosphere?"¹⁹

German researcher Eva Horn calls anthropogenic climate change a "Catastrophe without event",²⁰ "Katastrophe ohne Ereignis", in which there are no defined agents, no precise moment in time, no fixed spatial location. In

¹⁴ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, chapter "Plagues of warming."

¹⁵ In the discourse on climate change, the category of tipping points is often invoked, but they are not necessarily comprehensible to a wider audience. The very moment of crossing the point of no return is not spectacular; it only activates mechanisms whose effects will be visible with a delay and will reveal themselves gradually.

¹⁶ Amitav Ghosh, *The Great Derangement. Climate Change and the Unthinkable* (Chicago and London: The University of Chicago Press, 2016), chapter *Part Three. Politics*.

¹⁷ This is how Nathaniel Rich describes it in "Losing Earth: The Decade We Almost Stopped Climate Change," *The New York Times*, August 1, 2018, <https://www.nytimes.com/interactive/2018/08/01/magazine/climate-change-losing-earth.html>.

¹⁸ Rich mentions activists protesting the Love Canal landfill, the construction of the Hetch Hetchy dam, the 1979 Three Mile Island nuclear power plant accident, among other things.

¹⁹ Rich, *Losing Earth. A Recent History*, ch. 10 "Caution Not Panic. 1983–1984".

²⁰ Cf. Eva Horn, *The Future As Catastrophe: Imagining Disaster in the Modern Age*, trans. Valentine Pakis (New York: Columbia University Press, 2018).

addition, the multiplicity of disparate and diffuse scenarios of possible changes creates confusion.²¹

It is difficult to treat as a catastrophe something that is not experienced in a violent or unambiguous way. This aspect is also pointed out by Jonathan Franzen:

Other kinds of apocalypse, whether religious or thermonuclear or asteroidal, at least have the binary neatness of dying: one moment the world is there, the next moment it's gone forever. Climate apocalypse, by contrast, is **messy**.²² (emphasis mine – A.J.-W.)

The attribute “messy” proposed by Franzen reflects well the difficulties involved in grasping the dynamics of this process. We keep hearing that the catastrophe has already begun, that our world is coming to an end, while at the same time not everyone notices any changes, some symptoms of global warming are treated with indulgence or even glee – after all, what could be wrong with having a hotter summer in northern Europe?

German climatologist and science popularizer Mojib Latif states: “the temporal separation of cause and effect”²³ contributes to the inability to grasp climate change, in addition to the fact that the gases, which are often an important theme in debates, are invisible, making the problem of global warming seem abstract. This is precisely the difficulty I mentioned with Rafe Pommerans’s experience.

David Wallace-Wells points out a certain paradox: “Climate change is fast, much faster than it seems we have the capacity to recognize and acknowledge; but it is also long, almost longer than we can truly imagine.”²⁴ And at the same time, the projected rise in temperatures does not necessarily scare us: “Because these numbers are so small, we tend to trivialize the differences between them—one, two, four, five.”²⁵

We have never encountered an apocalypse, even the very vision of the end of the world does not necessarily mean the end of man. After all, the biblical Last Judgment is meant to define only the place of our eternal abode (or temporary exile in the case of Purgatory). Man himself, in the view of the Christian religion, is the culmination of the divine process of creation, a child of God, created in the image and likeness of the eternal and immortal Father. The promise of eternal life is an essential part of Western identity, and – despite growing secularization – it is not easy to cast doubt on it.

²¹ Cf. Horn, *The Future As Catastrophe*, 8–9.

²² Franzen, *What If We Stopped Pretending?*

²³ Mojib Latif, *Heißzeit. Mit Vollgas in die Klimakatastrophe – und wie wir auf die Bremse treten* (München: Goldman, 2023), 111.

²⁴ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. I “Cascades.”

²⁵ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. I “Cascades.”

Science confronted with business-as-usual

[T]here's something fundamentally wrong with the way we're organizing our economy and thinking about our place on the planet.²⁶

Naomi Klein

Frankly, if preserving the future of humanity and the "nature" upon which it relies depends on the kleptocrats, sociopaths, and malignant narcissists who now run the world, it's hard not to come to the conclusion that we're all totally fucked.²⁷

Roy Scranton

One of the constant charges against science is the accusation of excessive "alarmism". This is a very unfair assessment, for science does not use flashy slogans excessively. On the contrary, it exercises far-reaching caution. James Hansen, who first testified before Congress on global warming in 1988, called this phenomenon 'scientific reticence' in a paper chastising scientists "for editing their own observations so conscientiously that they failed to communicate how dire the threat really was."²⁸ Science does not use intimidation measures, after all, that is not its purpose. One researcher quoted by Rich notes that because "scientists are cautious in [their] statements, everybody else misses the point, because they don't understand [scientists'] qualifications."²⁹ Communication difficulties were also experienced by Rafe Pomperans, a historian by training, already mentioned in this text. Concerned about the data indicating the threat of global warming, he began looking for reliable sources of knowledge, turning "the authors of the reports [...] tended to be Scientists [...] were not in the habit of fielding questions from political lobbyists. They were not in the habit of thinking about politics."³⁰

It is worth considering to what extent hedging is relevant here, a convention of Anglo-Saxon scientific writing that calls for softening and weakening

²⁶ "We Need Hope and Fear in Equal Measure." Interview with Naomi Klein, interviewed by Roy Scranton, *RollingStone*, September 22, 2014, <https://www.rollingstone.com/culture/culture-features/we-need-hope-and-fear-in-equal-measure-an-interview-with-naomi-klein-186125/>.

²⁷ Roy Scranton, "We Broke the World. Facing the Fact of Extinction," *BAFFLER*, no. 47 (September 2019): 93. The German writer Karen Duve, author of an essay (pamphlet?) with the telling title: *Warum die Sache schief geht. Wie Egoisten, Hohlköpfe und Psychopaten uns um die Zukunft bringen* [Why Things Are Going in the Wrong Direction. How Egoists, Morons and Psychopaths Deprive Us of the Future] (Berlin: Galiani, 2014) comes to similar conclusions: our model of leadership needs corrections.

²⁸ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. III "The climate kaleidoscope. Storytelling".

²⁹ Rich, *Losing Earth. A Recent History*, ch. 6 "Tiger on the Road. October 1980".

³⁰ Rich, *Losing Earth. A Recent History*, part II, ch. "The Whole Banana, spring 1979".

the unambiguous pronunciation of research results: “To the best of our knowledge...”, “probably”, “might be”, “we hope” etc. In a clash with media discourse, such a style loses, flashy and simplistic headlines have a stronger effect on uninitiated audiences. Among other things, this is why the narrative that scientists do not agree on the threat of anthropogenic climate change may be gaining popularity. Since the message of researchers does not resound loudly, they probably do not have clear research results, their conclusions are contradictory, or they still have to wait for consistent outcomes.

Naomi Oreskes did not find a single text among the scientific publications that went through peer review procedures (peer review, double blind) that challenged the unanimity of experts on the issue of global warming.³¹ As Oreskes’s books co-written with Erik M. Conway show, the notion that science is not in agreement on the issue has been systematically fueled by pseudo-scientific groups on behalf of Big Oil. In the publication *Merchants of Doubt. How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*, the researchers managed to trace the origin of revelations that undermine the results of sound scientific work. The book is a great indictment of oil companies, which have deliberately discredited the results of specialists’ research (the unethical practices of the Exxon oil company are particularly stigmatized), sown uncertainty about the human impact on climate change, and above all belittled their own impact on the environment. The most effective approach turned out not to be denialism, but precisely to cast doubt on the scientific consensus.³² During a multi-year search, Oreskes and Conway collected evidence that clearly shows that the same people, the same pseudo-experts, often with very strong positions in the scientific community, but in other fields (e.g. physics), were responsible for similar actions with regard to both the nicotine industry and later the fossil fuel industry. This did not stop them from speaking out on topics on which they had done no research and were not competent enough to question the results of other scientists. The Big Tobacco Playbook, an instruction

³¹ Naomi Oreskes, “The scientific consensus on climate change,” *Science*, 306 (5702), 1686–1686. Values above 90 percent appear in analyses conducted between 2009 and 2015 by various groups of researchers. Cf. John Cook, Geoffrey Supran, Stephan Lewandowsky, Naomi Oreskes, and Ed Maibach, *America Misled. How the fossil fuel industry deliberately misled Americans about climate change* (Fairfax VA: George Mason University Center for Climate Change Communication, 2019), 5, <https://www.climatechangecommunication.org/america-misled/>.

³² An entire book by Oreskes and Conway, *Merchants of Doubt*, is devoted to this strategy. See Naomi Oreskes, and Erik M. Conway, *Merchants of Doubt. How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (New York–London–New Delhi–Sydney: Bloomsbury Publishing, 2011).

manual on how to mislead the public, was used to challenge the scientific consensus on anthropogenic climate change. “Doubt is our product”³³ – that is the slogan of this pseudo-expert group.

Ready for the end of the world? Climate injustice

Die Frage ist: Wo willst du sein, wenn die Zeit abgelaufen ist? In einem Boot, das dem Sturm trotz, herumgeschleudert zwischen den Spitzen der Wolkenkratzer, die aus den Wellen ragen? In einem Bunker, tief unter der Erde? In einem Flugzeug, auf dem Weg ins ewige Eis?³⁴

[The question is: where do you want to be when time runs out? In a boat trying to stay afloat during a storm and dodge the skyscrapers that, like great buoys, rock the waves? In a bunker deep underground? In a plane to the land of eternal ice?]

Marius von Mayenburg

Ilija Trojanow, a German-language author, boldly states that the richest are the most harmful to the planet, as they are the ones who leave the largest carbon footprint, rather than, for example, the humble African farmer. However, it is the mighty and influential who feel compelled to speak out on sustainability issues, although at the same time they take no real action to improve the livelihood of the people of the Global South (not counting marketing greenwashing campaigns). The teachings preached by Bill Gates and Ted Turner on reducing fertility for the sake of the planet are considered by the writer to be inappropriate, to say the least: the former billionaire has three children, while the latter has five. This paradox is not unique, for the Global North makes exorbitant demands on the Global South, so that little needs to change in highly developed countries. And yet it is usually those that live the most modestly who will experience climate change the most severely.³⁵ Wallace-Wells writes from the perspective of the people of the Global North: “selfishly, we didn’t mind destroying the planet for others living elsewhere on it or those not yet born [...]”³⁶

Regarding this injustice, Trojanow is not optimistic: “the experience of survivors in the past shows that if the raft is too small for everyone, not everyone

³³ Cf. Oreskes, and Conway, *Merchants of Doubt. How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*, ch. 2.

³⁴ Marius von Mayenburg, *Mars* (Berlin: henschel SCHAUSPIEL Theaterverlag, 2018). Manuscript.

³⁵ “With one exception (Australia), countries with lower GDPs will heat up the most.” Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. “Cascades”.

³⁶ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. “Cascades”.

will be 'expendable' to that extent."³⁷ David Wallace-Wells invokes the concept of "genocide" which is used by island nations to refer to climate catastrophe.³⁸ The livelihoods of small nations living in the Pacific are under severe threat, such as in the case of Tuvalu, whose people are directly experiencing the effects of climate change, contracting new diseases previously unknown there; they are losing part of their land permanently, their farmlands are waterlogged by salty ocean waters, which annihilates crops – for years the formerly paradisiacal and pristine islands have been unable to grow fresh fruits and vegetables even for their own consumption³⁹; they have to import processed products, and along with native plants, local customs are disappearing, because it is no longer possible to prepare traditional dishes according to old recipes. The loss of cultural identity is also affecting other communities, often post-colonial or post-dependency: "Climate change is yet another rapid assault on our way of life,"⁴⁰ quotes Inuit representative Kyle Powys Whyte. In the case of rising ocean levels, the motif of a raft or lifeboat takes on a literal meaning, as well as a ship or space capsule that allows evacuation from a dying planet – so it should come as no surprise that it is repeated frequently when considering the chances of survival. Dipesh Chakrabarty states that.

Climate change, refracted through global capital, will no doubt accentuate the logic of inequality that runs through the rule of capital [...]. Unlike in the crises of capitalism, there are no lifeboats here for the rich and the privileged (witness the drought in Australia or recent fires in the wealthy neighborhoods of California).⁴¹

Swedish scientist, radical activist and climate alarmist Andreas Malm, whose views coincide with Trojanow's observations, distances himself from this thesis:

For the foreseeable future – indeed, as long as there are class societies on earth – there will be lifeboats for the rich and privileged, and there will not be any shared sense of catastrophe. More than ever, class divisions will become matters of life and death: who gets to drive out of the city when the hurricane approaches; who can pay for seawalls or homes solid enough to withstand the coming flood.⁴²

³⁷ Cf. Ilija Trojanow, *Der überflüssige Mensch* (St. Pölten–Salzburg–Wien: Residenz Verlag, 2013), ebook, TOLINO, ch. „Auf Sie können wir verzichten. ch. Cascades“.

³⁸ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. "Cascades".

³⁹ Cf. Eleanor Ainge Roy, "One day we'll disappear," *The Guardian*, 16.05.2019, <https://www.theguardian.com/global-development/2019/may/16/one-day-disappear-tuvalu-sinking-islands-rising-seas-climate-change>.

⁴⁰ Kyle Powys Whyte, *Way Beyond the Lifeboat: An Indigenous Allegory of Climate Justice*, in *Climate Futures. Reimagining Global Climate Justice*, eds. Kum-Kum Bhavnani et al. (bmw: Bloomsbury Academic, 2019), 11.

⁴¹ Dipesh Chakrabarty, "The Climate of History: Four Theses," *Critical Inquiry* 35 (2009): 221–222.

⁴² Andreas Malm, *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming* (New York, London: Verso 2016), ebook, EPUB.

Both of these concepts – Chakrabarty’s and Malm’s – are not necessarily mutually exclusive; in the long run, the chances of survival may become negligible for all, but in the next few decades the second option seems more likely: the Global North may enjoy conditions suitable for life for longer. The level of training and equipment of the emergency services, the procedures allowing effective evacuation, the warning systems available, and finally the territorial possibilities are also not insignificant: for example, Tuvalu, mentioned above, will probably be forced to evacuate its citizens to other countries, since a historic migration agreement was recently signed between this country and Australia.⁴³ Some countries may even gain from global warming: according to some sources, Russian Siberia may gain traction,⁴⁴ and the Scandinavian countries may save on heating costs. Why, then, should the privileged fear a catastrophe that will not immediately affect them and may become a source of short-term benefits? According to Malm’s theory, financial resources offer a much better chance of survival. The protagonist in Marius von Mayenburg’s drama *Mars* speaks of the rich:

Meine Kollegen kaufen in großem Stil Grundstücke in Neuseeland, die haben ganze Inseln erworben, mit verminten Stränden, da werden tief unter der Erde Betonanlagen gebaut, irgendwo in Nevada, da gibts sogar Poloplätze, die legen Vorräte an und haben unterirdische Söldnerheere mit Hochtechnologiebewaffnung.⁴⁵

[My colleagues buy land in New Zealand, whole islands they acquire, they have mined beaches there, deep underground they have concrete plants, somewhere in Nevada, there they even have polo fields, they make supplies, store them in bunkers, they have underground armies of mercenaries, they are equipped with hi-tec weapons.]

The strategies mentioned above give a significant advantage. The chosen ones do not intend to share with others, so they mine the coast and hire paramilitary protection.

An important role for downplaying the threat is also played by faith in the power of the human mind: the geoengineering already mentioned by Oreskes and Conway will save us (a controversial method, although opinions are divided: Kim Stanley Robinson, a respected science fiction author,⁴⁶ in

⁴³ Cf. “Australia to offer residency to Tuvalu citizens displaced by climate change,” *The Guardian*, 10.11.2023, <https://www.theguardian.com/australia-news/2023/nov/10/australia-to-offer-residency-to-tuvalu-residents-displaced-by-climate-change>.

⁴⁴ Cf. Tim Hornyak, “Climate Change Could Make Siberia an Attractive Place to Live,” *EOS*, July 12, 2017, <https://eos.org/articles/climate-change-could-make-siberia-an-attractive-place-to-live>.

⁴⁵ Mayenburg, *Mars*, 9.

⁴⁶ Oreskes and Conway point to this very author as one of their inspirations. Cf. Oreskes, and Conway, *The Collapse of Western Civilization: A View from the Future*, ch. “Interview with the authors”.

Ministry for the Future sums it up succinctly: “Geoengineering? Yes. Ugly? Very much so. Dangerous? Possibly. Necessary? Yes”⁴⁷). In their recent publication James Hansen et al. also state that at the present time even drastic reduction of emissions is not a sufficient action, so geoengineering must be resorted to⁴⁸) or we will find a new refuge on Mars. Similar fantasies are ridiculed by James Lovelock, creator of the famous Gaia hypothesis: “The pioneer and would-be spacefarer Elon Musk has said he would like to die on Mars, though not on impact. Martian conditions suggest death on impact might be preferable.”⁴⁹ Lovelock also stresses that using even a fraction of the unimaginable funding for Mars exploration would be enough to conduct research that could provide crucial knowledge about Earth.⁵⁰ “It’s going to be awful, but maybe not so fast and maybe not for everyone. Maybe not for me”,⁵¹ this is s how Franzen sums up the denial strategy.

The fraction of the scared

It should come as no surprise that greater fear of global warming can be observed in the poor countries of the Global South, which have experienced the effects of climate change to a stronger degree.⁵² The privileged citizens of the Global North will probably not be too painfully affected by climate change for some time to come – I use the term “citizens” deliberately, because refugees, often illegal to richer countries, are in a different situation. Those who have experienced disasters know that the threat is real. Many of

⁴⁷ Kim Stanley Robinson, *Ministry for the Future* (New York: Hachette Book Group, 2020), 102. EPUB.

⁴⁸ Cf. Alejandro de la Garza, “We Need Geoengineering to Stop Out of Control Warming, Warns Climate Scientist James Hansen,” *The Time*, 2.11.2023, <https://time.com/6330957/james-hansen-climate-warning-geoengineering-study/>.

⁴⁹ James Lovelock, *Novacene. The Coming Age of Hyperintelligence* (Cambridge, Massachusetts London, England: The MIT Press, 2019), ebook, EPUB, ch. “The Edge of Extinction”.

⁵⁰ Cf. Lovelock, *Novacene*, ch. “The End of Extinction”.

⁵¹ Franzen, *Wann hören wir auf*, 24.

⁵² “[I]n the northern hemisphere, heightened anxiety can be seen in Portugal, where a series of dangerous fires occurred in 2017”. Caroline Hickman et al., „Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey,” *Lancet Planetary Health* 5, no. 12 (2021): e863–873. “Countries expressing more worry and a greater impact on functioning tended to be poorer, in the Global South, and more directly impacted by climate change; in the Global North, Portugal (which had dramatic increases in wildfires since 2017) showed the highest level of worry”. Hickman et al., „Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey,” e866.

them constantly have to fear deportation to areas affected by climate change and related armed conflicts.

In rich societies, young people are the group vulnerable to the fear of catastrophe, who inherit from older generations a degraded world and processes that are difficult or impossible to stop. “The fight to save the climate is lost in the generational clash,”⁵³ Schätzing states. Oreskes and Conway compare the current Western lifestyle to a grand banquet that no one will be able to pay for in the future.⁵⁴ Wallace-Wells stresses that “[w]e will pay in cascades from nature,”⁵⁵ while at the same time running out of funds to repay, because one of the consequences of global warming is economic collapse.⁵⁶

Jonathan Safran Foer also writes – self-ironically and self-critically – about irresponsible practices and impossible debts:

My great-grandparents lived in a wooden house with no indoor plumbing and on cold nights would sleep on the kitchen floor by the stove. They never could have believed the things I have: a car that I drive for convenience rather than necessity, a pantry stocked with foods imported from all over the planet, a home with rooms that aren't even used on a daily basis. And my great-grandchildren won't believe it, either, although their disbelief will have a different spirit: How could you have lived so high and left us with a bill too large to be paid—too large to be survived?”⁵⁷

And it is indeed difficult to imagine a meaningful response to this allegation.

In addition to scientists, activists and a narrow group of people who do not underestimate the changes, people who try to live a sustainable lifestyle (which is, of course, a very idealistic assumption in itself), people who are experiencing mental deterioration due to climate change deserve attention. “Heat frays everything. It increases violent crime rates, swearing on social media,”⁵⁸ and provokes a number of other dangerous behaviours.

Rising temperatures are also contributing to climate depression. While this is not a term from medical taxonomy, it deserves attention due to its prevalence:

“[C]limate depression” seems to be a term of a common language with a medicalized sound to it [...] the term ‘climate depression’ reflects a certain shared experience, responding to an authentic, important, and deeply felt subjective phenomenon, although it does not indicate a precise psychiatric concept or a diagnosis.⁵⁹

⁵³ Schätzing, *Was, wenn wir einfach die Welt retten?* 125.

⁵⁴ Oreskes, and Conway, *Merchants of Doubt*, ch. “A New View on Science”.

⁵⁵ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. “Climate Conflict”.

⁵⁶ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. “Economic Collapse”.

⁵⁷ Jonathan Safran Foer, *We Are the Weather: Saving the Planet Begins at Breakfast*, ch. “Mortgaging the Home” (New York: Farrar, Straus and Giroux, 2019), ebook, EPUB.

⁵⁸ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. “Climate Conflict”.

⁵⁹ Magdalena Budziszewska, and Weronika Kałwak, „Climate depression. Critical analysis of the concept,” *Psychiatria Polska* 56 (1) (2022): 178, <https://doi.org/10.12740/PP/127900>.

– emphasize Magdalena Budziszewska and Weronika Kałwak. Although population-wise humans tend to overestimate optimistic scenarios, the biochemical mechanisms leading to this are disrupted in the case of people suffering from depression.⁶⁰ In opposition to those who reject or disbelieve apocalyptic visions are those who look to the future with far-reaching pessimism.

Many young people know that they will come to deal with the effects of climate change, experience weather anomalies, related migrations, a decline in the quality of life, and will be forced to function in uncertain and unpredictable conditions. Armed conflicts will arise alongside the migration of hundreds of millions or even a billion people.⁶¹ The year 2100, often mentioned as an indicative moment in gloomy visions of the future, is for today's mighty and influential of this world a future beyond the horizon of their experience.

“And what are poets for in needy times?”⁶²

Activists, scientists and researchers, writers (the opinions of some of whom I cite in this article) can or at least try to overcome doubt. Even the darkest of their predictions usually⁶³ end with a call to action. Jonathan Franzen, Roy Scranton and David Wallace-Wells do not want simplifications and idealized visions of the future: things will only get worse (the famous, oft-cited quote “It’s worse, much worse, than you think”⁶⁴ opening of Wallace-Wells’s essay), but this does not mean that we should give up, quite the contrary: it is necessary to act quickly and decisively, and at the same time we must remember that some changes are bound to happen. Frank Schätzing is not clear on the question of whether the world can be saved, but he believes that action is necessary.⁶⁵ Mojib Latif, a climate scientist and popularizer of

⁶⁰ Cf. Ryguła, „Neuropsychologia optymizmu” [Neuropsychology of optimism], 30.

⁶¹ Wallace-Wells says the number of wars will double if temperature rises 3 degrees Celsius by 2100. Cf. Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. “Cascades”. Harald Welzer titles his book *Climate Wars: What People Will Be Killed for in The 21st Century*.

⁶² Let me use this pathetic phrase after Hölderlin and Heidegger. Original: “[W]ozu Dichter in dürrtger Zeit?” Cf. Friedrich Hölderlin, *Brod und Wein*, trans. James Mitchell, *Poems of Friedrich Hölderlin*, selected by James Mitchell, https://holderlinpoems.com/deutsche_texte/brotwein1.html. Friedrich Hölderlin, *Bread and Wine*, trans. James Mitchell. *Poems of Friedrich Hölderlin*, selected by James Mitchell. <https://holderlinpoems.com/poems/breadwine1.html>.

⁶³ In the case of Duve’s *Warum die Sache schiefgeht?* the ending does not leave hope. However, it should be regarded as a provocation.

⁶⁴ Wallace-Wells, *The Uninhabitable Earth: Life After Warming*, ch. “Cascades”.

⁶⁵ The very subtitle of the book *Was, wenn wir einfach die Welt retten?* is *Handeln in der Klimakrise*, or “acting in the climate crisis.”

knowledge, distances himself from Franzen's⁶⁶ moderate pessimism and stresses that we still have time to save our world.⁶⁷ Even Stefanie de Velasco, a writer who undertook – following the example of Greta Thunberg – a climate strike because she, through her attitude and the blog she decided to keep, doubted the power and meaning of literature, does not derail action. With reference to de Velasco's reflections, it is worth asking the question about the legitimacy of creating literature or, more broadly, works of fiction. Can art make a difference? On this question, Ilija Trojanow remains skeptical:

Die Klassiker dürfen Licht ins Dunkel tragen, sie dürfen Sätze verfassen, die man in steinerne Fassaden hauen kann. Lebende Autoren hingegen, das erfuhr ich, wann immer ich die Zeitung aufschlug, sollen sich bescheiden, ein wenig anregen, ein wenig erregen, ein wenig aufregen, aber auf gar keinen Fall die Welt verändern wollen. Wie soll man noch zu Lebzeiten aufrütteln? Beschämung funktioniert nicht, [...] Pathos funktioniert nicht. Und Gewalt? Gewalt ist die einzige Sprache, die noch nicht von den Etiketten der Sponsoren überklebt ist. Allein, wir verstehen einzig die Gewalt, die sich gegen uns richtet. Die Gewalt, die anderen angetan wird, bleibt für uns unverständlich oder stumm.⁶⁸

[The classics could carry light in the darkness, could formulate sentences that could be forged in stone facades. In contrast to them, living writers, as I found out every time I opened the newspaper, should discreetly only annoy a little, only excite a little, but in no way should they fix the world. How can a living poet shake up the audience. Shaming doesn't work [...] pathos doesn't work [...]. And violence? Violence is the only language that has not yet been covered with sponsors' stickers. It's just that we only understand the violence that is directed against us. The violence experienced by others remains incomprehensible or silent to us.]

The position of the creator in the modern world is much weaker, so the artist must act with increased strength. However, this does not relieve him of responsibility for the future of our world. Even if literature loses its power of influence, we still have no better tool, argues Olga Tokarczuk in her Nobel speech *The Tender Narrator*: "Only literature is capable of letting us go deep into the life of another being, understand their reasons, share their emotions and experience their fate."⁶⁹

Only with the help of literature, art or pop culture can one try to move audiences, change their attitudes, make them change their habits, take action, point out climate injustice. Abstract data are hardly readable for most people, they are difficult to imagine, here a space opens up for other dis-

⁶⁶ Roy Scranton states that we must learn to die in order to rise again, and Ilija Trojanow thinks similarly: we must knock a man off his pedestal in order to save him.

⁶⁷ Latif, *Heißzeit*, 14.

⁶⁸ Ilija Trojanow, *EisTau*. München (Deutscher Taschenbuchverlag, 2011), 147–148.

⁶⁹ Olga Tokarczuk, *The Tender Narrator* (The Nobel Foundation 2019), 14, <https://www.nobelprize.org/uploads/2019/12/tokarczuk-lecture-english.pdf>.

courses that convey knowledge in a more accessible form, appeal to feelings and imagination:

Fakty, dane, liczby są oczywiście ważne, ale to opowieści i narracje oddziałują najsilniej i najgłębiej, kształtują zbiorową wyobraźnię. Dosłowność, wyliczenia, beznamiętne referowanie nie przemawiają do wyobraźni, a zera na końcu zmieniają liczby w abstrakcje. Kto z nas wie, ile to jest 51 miliardów ton gazów cieplarnianych?⁷⁰

[Facts, data, numbers are important, of course, but it is the stories and narratives that have the strongest and deepest impact and shape the collective imagination. Literality, calculations, dispassionate referencing do not appeal to the imagination, and zeros at the end turn numbers into abstractions. Who among us knows how much is 51 billion tons of greenhouse gases?]

It is art that becomes the language of communication between different discourses, allows the imagination to be stimulated, can move and touch, inspire change, give strength and hope in a time of misery. And perhaps it is the key medium for effective communication in the face of crisis.

Closing remarks

The only hope for human civilization lies in a radical, abrupt, and probably violent transformation of that very civilization.⁷¹

Roy Scranton

The overview provided by this article certainly does not exhaust the issue of climate change fear and skeptical or denialist attitudes. Like the complex problem of global warming itself, reactions to it are multidimensional and diverse, involving many factors: weather, spatial, cultural, economic, biochemical or, finally, personal. However, I have tried to point out certain trends and tendencies that are repeated in the now partly canonical texts of activists, scientists, writers and cultural people. Often their views on specific solutions stand in opposition to each other – this is material for a separate scientific text⁷² – but it is important to note the dense network of connections between the various authorities, which manifests itself, among other things, in the mutual citation of scientific works and results, in the merging

⁷⁰ „Liczby nie przemawiają do wyobraźni. Co innego, gdy uczymy o klimacie z pomocą ‘Małego Księcia’” [Numbers don’t appeal to the imagination. It’s different when we teach about climate with the help of ‘The Little Prince’]. Magdalena Ochwat is interviewed by Alicja Gardulska, *Gazeta Wyborcza*, October 5, 2023, <https://wyborcza.pl/7,75398,30261443,nauka-o-klimacie-to-cwiczenie-wyobrazni-musimy-sie-tego-nauczyc.html#S.TD-K.C-B.5-L.2.duzy>.

⁷¹ Scranton, *We Broke the World*, 90.

⁷² Controversial issues include nuclear power, geoengineering, wind farms, and electric cars, among other things.

of science and art. This heterogeneous group of people with different backgrounds unite with a common goal – they are all looking for an effective method of communication, striving to transfer knowledge. They want to emphatically convey an inconvenient truth, which sometimes intellect alone is not enough to accept – what is needed is an affect, an emotional commitment that will overcome doubt and prompt concrete actions, concessions, making systemic changes and developing strategies for climate justice.

Translated by Anna Wylężałek

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Wer hat (keine) Angst vor Klimawandel. Wissenschaft, Essay und Fiktion im Kampf um die Rettung der Erde, des Planeten des Menschen (Essay)

Abstract: Der Beitrag untersucht und beschreibt Verdrängungsstrategien in Bezug auf den anthropogenen Klimawandel. Globale Erderwärmung wird oft nicht als ernste Bedrohung wahrgenommen. Schuld daran sind: die Verharmlosung der Katastrophe, mangelndes Feingefühl, die Flüchtigkeit, Unscheinbarkeit und der diffuse Charakter der Katastrophe an sich, der Mangel einer eindeutigen Zäsur oder sichtbarer Symptome. Die Menschen neigen auch dazu, Risiken zu unterschätzen, glauben an die Anpassungsfähigkeit des Menschen, an technische Möglichkeiten, wie z. B. Geoengineering. Eine gegenteilige Reaktion ist möglich, die sich als Klimadepression manifestiert. Ein weiteres Unterscheidungsmerkmal ist der Wohnort: Der Globale Norden ist privilegiert gegenüber dem verarmten Globalen Süden. Literatur und Kunst erscheinen in diesem Kontext als besonders wichtiges Medium, um die Gefahren des Klimawandels zu kommunizieren, für Klimaungerechtigkeit zu sensibilisieren und durch emotionales Engagement zu konkreten Handlungen zu bewegen, die hoffentlich in der Zukunft klimatische Ungleichheiten beseitigen werden.

Schlüsselworte: Klimanarrative, Klimawandelleugnung, Katastrophe ohne Ereignis, Klimatische Ungerechtigkeit, Klimadepression

Kto się (nie) boi zmian klimatu. Nauka, esej i fikcja w walce o ocalenie Ziemi, planety ludzi (esej)

Abstrakt: Celem artykułu jest zdefiniowanie i opisanie strategii wyparcia stosowanych wobec antropogenicznych zmian klimatu. Na przeszkodzie w pojmowaniu zagrożenia zmianami klimatu stają: znieczulenie na fenomen katastrofy, nieuchwytność, chaotyczność i pozorna niekompatybilność globalnego ocieplenia, brak wyraźnej cezury czy widocznych symptomów. Ludzie mają też skłonność do niedoszacowywania ryzyka, dodatkowo żywią prze-ko-

nianie o ludzkich zdolnościach adaptacyjnych, wierzą w możliwości techniczne, np. w geoinżynierię. Można zaobserwować reakcję odwrotną, która przejawia się jako depresja klimatyczna. Dodatkowym czynnikiem różnicującym jest miejsce zamieszkania: Globalna Północ jest w uprzywilejowanej pozycji względem ubogiego Globalnego Południa. Literatura i sztuka okazują się szczególnie istotnym medium do komunikowania zagrożeń związanych ze zmianą klimatyczną, uwrażliwiają na niesprawiedliwość klimatyczną i poprzez zaangażowanie emocjonalne mogą skłonić do zmiany nawyków i podjęcia realnych działań mających na celu złagodzenie niesprawiedliwości klimatycznej.

Słowa kluczowe: narracje klimatyczne, negacjonizm klimatyczny, katastrofa bez wydarzenia, niesprawiedliwość klimatyczna, depresja klimatyczna