

Izvirni znanstveni članek/Article (1.01)

Bogoslovni vestnik/Theological Quarterly 82 (2022) 2, 365—375

Besedilo prejeto/Received:02/2022; sprejeto/Accepted:03/2022

UDK/UDC: 2-175.2:502/504

DOI: 10.34291/BV2022/02/Kovacs

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After the Catastrophe: What Can We Learn from Fictional Apocalyptic Scenarios?

Po katastrofi: kaj se lahko naučimo iz domišljijskih apokaliptičnih scenarijev?

Abstract: Narratives often take the form of a thought experiment, trigger intuitive responses, and aim at the moral conversion of the audience. The current article introduces two stories concerning the environmental crisis, Richard Routley's *Last Man Thought Experiment* from 1973, and the satirical film *Don't Look Up* from 2021. Although they belong to different genres, both function as thought experiments designed to highlight issues of ecological concern. The article provides an analysis of the context and argumentation of the two imaginary scenarios and of the way they motivate responsible action. They both offer an adequate but differing criticism of their contemporary societies and might help to overcome the triviality of the talk about an impending environmental catastrophe.

Keywords: environmental crisis, thought experiment, apocalyptic scenarios, *Last Man*, *Don't Look Up*, Richard Routley

Povzetek: Pripovedi se pogosto pojavljajo v obliki miselnih eksperimentov, sprožajo intuitivne odzive in težijo k moralni spreobrnitvi gledalcev. Prispevek obravnava dve zgodbi na temo okoljske krize: *Miselni eksperiment poslednjega človeka* Richarda Routleya iz leta 1973 in satirični film *Ne glejte gor* iz leta 2021. Čeprav sta različnih zvrsti, obe zgodbi delujeta kot miselni eksperiment za poudarjanje ekološke občutljivosti. Prispevek ponuja analizo konteksta in argumentacije obeh domišljijskih scenarijev ter načina, kako motivirata odziv z odgovornimi dejanji. Oba scenarija ponujata ustrezno in hkrati medsebojno različno kritiko sodobne družbe – in lahko pripomoreta k preseganju trivialnosti, ko se govori o grozeči okoljski katastrofi.

Ključne besede: okoljska kriza, miselni eksperiment, apokaliptični scenariji, *Poslednji človek*, *Ne glejte gor*, Richard Routley

In 2022, it is extremely difficult to talk about the impending environmental catastrophe endangering the earth and us, human beings. The talk about this real threat often seems to be trivial in both religious and secular discourse. (Opatrny 2017, 34–41) We have become accustomed to the state of being constantly at risk, similar to the persistence of COVID-19 in our everyday lives.

One reason for this apparent triviality might be our continuous and intense occupation with the question in the last decades in popular and academic discourse. Most major news sites publish stories and articles on environmental issues on a daily basis. Neither individuals nor communities are able to provide a solution to the constant feeling of being endangered since the environmental issue is a global problem requiring global solutions. The helplessness resulting from how far off true, effective and comprehensive solutions are, might be responsible for this sense of triviality.

Another reason is the need of academics to work with comprehensive statements of facts concerning the climate crisis and its effects on human beings. Mateja Pevec Rozman's description is a good example of this comprehensiveness:

»Humanity has become the master of nature, but nature and our environment are increasingly vulnerable and endangered. /.../ With his consumer way of life, man contributes significantly to unfavourable climate change. /.../ We live in a paradoxical situation where man has become a victim and a slave to his progress. The question arises as to whether we prepare for climate change and what we are willing to do to survive and preserve planet Earth for future generations.« (2021, 836)

Certainly, her article provides further elaboration on this state of affairs, but this short quotation still points to the core of the climate crisis and the responsibility the current situation poses to us. The words 'survive' and 'preserve' show clearly what is at stake. There is another question concerning all texts about the climate crisis, namely, whether they are able to induce moral conversion by making ethically important values visible and actuating responsible actions.

The current article introduces two stories – more precisely thought experiments –, which were created for the purposes mentioned above: making values visible and actuating responsible actions. The first was formulated by Richard Routley (Sylvan) and became part of the environmental canon as the *Last Man Thought Experiment*. It is a characteristic thought experiment from the 1970s, while the other one is a contemporary thought experiment coined in the form of a movie, the satirical film *Don't Look Up* from 2021. Although they both belong to different genres, I will treat them as thought experiments designed to highlight issues of ecological concern.¹ The question to be answered is: what is the nature of values that the two thought experiments illuminate, and what is their capacity to actu-

¹ By ethical thought experiment I understand »(1) imaginary scenarios (2) referring to selected morally relevant aspects of reality and (3) aiming at testing moral beliefs, theses or theories (4) by activating the moral intuitions of the audience« (Kovács 2021, 54).

ate responsible action? Further, this article will consider whether it is possible to reformulate them to serve as thought experiments applicable to the current ecological crisis, that is to show relevant aspects of reality and to induce ecological conversion (Porras 2015, 136).

1. The context of the *Last Man Thought Experiment*

If one had to choose an encyclical and a popular movie to describe the current crisis, one would probably name the encyclical „Laudato si'“ by Pope Francis (2015) and Adam McKay's movie *Don't Look Up* (2021). The crisis of the 1960s also has its emblematic papal encyclical and popular film: „Pacem in terris“ by Pope John XXIII (1963) and Franklin J. Schaffner's *Planet of the Apes* from 1968. While the former were born in the context of global warming, the latter were created in the shadow of the threat of war. Ted Post's *Beneath the Planet of the Apes* from 1970 presents an iconic apocalyptic scene: Taylor, the astronaut who arrives on earth after making a long space journey in a state of hibernation, pushes the button of a doomsday device, thereby destroying all living beings, including superior apes and inferior humans.

Just three years later, in 1973, Richard Routley drew a similar apocalyptic picture at the 15th World Congress of Philosophy by asking the audience to imagine Mr. Last Man after a global cataclysm as he destroys all living beings, plants and animals completely. Does Mr. Last Man act in a morally right way, knowing that there will not be any sentient or intelligent being in the future who could experience and enjoy the presence of flora and fauna?

It is no coincidence that Routley formulated his thought experiment at this time. Not only the two movies and the general fear drove him to draw up this apocalyptic scenario, but also the apperception of the ecological crisis (Mathews 2010, 543). The Club of Rome published its ground-breaking report „The Limits to Growth“ in 1972, providing an extensive and data-based prognosis on the ecological effects of population and economic growth (Meadows et.al. 1972). In 1967 Lynn White Jr. published his famous essay „The Historical Roots of Our Ecologic Crisis“, where he outlines a history of ideas – including Christianity, among others - which had influenced the relationship of the Western world with the environment (White, 1967, 1203–1207). He argues that Western culture, where everything revolves around us humans, needs to be changed: »Despite Copernicus, all the cosmos rotates around our little globe. Despite Darwin, we are not, in our hearts, part of the natural process. We are superior to nature, contemptuous of it, willing to use it for our slightest whim.« (1204)

Routley, who together with his wife, Val Routley, participated actively in Australian environmental movements, calls attention to the limits of anthropocentrism. He raises his voice against Western, chauvinistic ethics, according to which »one should be able to do what he wishes, providing (1) that he does not harm

others and (2) that he is not likely to harm himself irreparably« (Routley 1973, 207). This principle, however, only refers to human beings and overlooks the environment. Routley not only wants to extend Western ethics to consider the environment, but he also wants to develop a new, environmental ethics, which considers nature less as an instrument, but rather as intrinsically valuable.

2. The *Last Man Thought Experiment* as social criticism

Although Routley does not use the term thought experiment in his original article, the example about Mr. Last Man fits the definition of thought experiments in practical philosophy. Since it searches for the answer to how »should we evaluate what would happen« in that particular imaginary situation, it should be considered as an ethical thought experiment (Gendler 2013, 25). Routley's thought experiment goes as follows:

»The last man (or person) surviving the collapse of the world system lays about him, eliminating, as far as he can, every living thing, animal or plant (but painlessly if you like, as at the best abattoirs). What he does is quite permissible according to basic chauvinism, but on environmental grounds what he does is wrong. Moreover, one does not have to be committed to esoteric values to regard Mr. Last Man as behaving badly (the reason being perhaps that radical thinking and values have shifted in an environmental direction in advance of corresponding shifts in the formulation of fundamental evaluative principles).« (1973, 207)

Although it differs from traditional thought experiments by starting with a statement instead of a question, it can still easily function as a thought experiment. As all thought experiments do, the Last Man Example sets up a trap for the audience. If someone condemns the actions of Mr. Last Man, he or she thereby departs from the chauvinism criticised by Routley. Since the death of Mr. Last Man is also the death of the last intelligent being, no one remains to experience the potential effects of the survival or devastation of the natural environment.

3. Does Nature have Intrinsic Value?

The thought experiment brings the audience into a world without a subject and asks whether nature possesses value on its own, without the presence of human beings. If »natural entities possess intrinsic value, this would most likely provide the strongest plausible reason for preserving them when they might otherwise be destroyed for their instrumental value as, for example, economic resources« (Carter 2004, 60). This is why it is essential for Routley and other environmentalists to show the intrinsic value of nature. Since, if nature receives distinctive protection along with its non-anthropocentric view, any damage caused to nature cannot be

justified merely by human interests. Routley questions one of the fundamental tenets of Western thought, which draws a clear distinction between humans and other entities of the world. Immanuel Kant writes the followings concerning persons in his *Groundwork of the Metaphysics of Morals*: »The human being, however, is not a thing, hence not something that can be used merely as a means but must in all his actions always be considered as an end in itself.« (2002, 4:429) But if nature has ultimate value, and it, therefore, cannot »be used merely as a means«, it moves into a category that thus far has been reserved only for persons.

If this were to be true, what intuition does the thought experiment trigger? Most people would probably intuitively condemn the pointless destruction since the description does not say anything neither about Mr. Last Man's motivation nor about his character. Destruction motivated by anger is also intuitively turned down as a pointless deed.

4. The Last Man Thought Experiment as Social Criticism

Although Routley's thought experiment fails to certify the intrinsic value of nature, it does succeed in criticizing the way contemporary societies treat nature. Routley formulates three other thought experiments in his article, two of which are modified versions of the original *Last Man Thought Experiment*.

In the Last People Example, Routley describes a group of people who know that they are the last of their kind (Routley 1973, 207–208). They are unable to reproduce themselves due to the damage caused by some sort of radiation. There is no chance that rational beings will ever take their place, thus a succession is ruled out this way, too. The Last People decide to engage in activities through which they exploit all natural resources on earth: »They humanely exterminate every wild animal and they eliminate the fish of the seas, they put all arable land under intensive cultivation, and all remaining forests disappear in favour of quarries or plantations, and so on.« (208) However, in contrast to Mr. Last Man, they are able to justify their actions: »they believe it is the way to salvation or to perfection, or they are simply satisfying reasonable needs, or even that it is needed to keep the last people employed or occupied so that they do not worry too much about their impending extinctions.« (208) Routley finds their actions and their justification that »they do not wilfully destroy natural resources /.../ environmentally inadequate« (208). This shows that Routley did not mean to use this second version as part of the thought experiment, but merely as an example of how it might mislead us if we conceive environmental ethics only as an extension of what Routley calls Western chauvinist ethics.

He is right in claiming that the Last Man Example does not serve his purposes. It does not induce the intuition qualifying the Last People's behaviour as ethically bad. For if their actions are done with good reason, e.g., to sustain their lives or to prevent them from suffering, most people would not be likely to intuitively

condemn their behaviour. A very precious piece of art could be used and even destroyed under certain conditions with good reason - at least when human lives are at stake - and the same is true with the destruction of natural objects. Routley admits that the intuition induced by the argument does not fit with his idea of 'an environmental ethics' according to which »the last people have behaved badly; they have simplified and largely destroyed all the natural ecosystems, and with their demise the world will soon be an ugly and largely wrecked place« (208).

The reasons given in the case of the Last People for the exploitation of nature are intuitively justified, especially since they happen to be mostly for humane purposes. Accordingly, Routley transforms the imaginary scenario to point at purposes justified by Western ethics, which the audience might intuitively reject. He points to the logic of industrialist societies and their relationship with nature to show the failure of ethical chauvinism.

»The last man is an industrialist; he runs a giant complex of automated factories and farms which he proceeds to extend. He produces automobiles among other things, from renewable and recyclable resources of course, only he dumps and recycles these shortly after manufacture and sale to a dummy buyer instead of putting them on the road for a short time as we do. Of course, he has the best of reasons for his activity, e.g. he is increasing gross world product, or he is improving output to fulfil some plan, and he will be increasing his own and general welfare since he much prefers increased output and productivity. The entrepreneur's behaviour is on the Western ethic quite permissible; indeed, his conduct is commonly thought to be quite fine and may even meet Pareto optimality requirements given prevailing notions of being better off.« (208)

The behaviour of the industrialist Mr. Last Man is probably intuitively rejected by most people. Reasons such as »increasing gross world product«, »improving output to fulfil some plan«, or »increasing his own and general welfare« are seen solely as a means to an end; thus, they have only instrumental value. The intuitive response of disgust would suggest that the integrity of nature is more valuable than the reasons mentioned. Routley claims that »the entrepreneur's behaviour is on the Western ethic quite permissible; indeed, his conduct is commonly thought to be quite fine and may even meet Pareto optimality requirements given prevailing notions of being 'better off'« (208). Interestingly, the Great Entrepreneur Example lacks anthropocentrism. It is not the man who is at the centre of Mr. Last Man's actions, but only the optimization of the industrial process and the expansion of the industrial system. Thus, industrialism is falsely identified with anthropocentrism; however, the Great Entrepreneur Example is a clear and legitimate criticism of the contemporary industrial system and its blindness to all-natural systems.

Routley does not stop at the analysis of the logic of industrialism; he also targets the other side of the system: the desire to consume. He uses the actual example of the hunting of the blue whale, which left the population on the verge of

extinction. Routley describes the blue whale as a ‚mixed good‘ which has both public and private value. He, however, focuses on the latter aspect, namely its use »as a source of valuable oil and meat« (208). In the example, the possible harms to individuals or society are neutralized so that whale hunting appears to be almost neutral with regard to human individuals or communities: »it does not harm the whalers; it does not harm or physically interfere with others in any good sense.« (208) Moreover, whalers do not stand in the need of hunting, since those who might be upset by whale hunting are »prepared to compensate the whalers if they desist« (208). Thus, it is assured that the hunting and its final result, the extinction of the blue whale, does not harm anyone. Although he cannot eliminate the suspicion that it might still harm others, even the most obvious harms to man are neutralized. This is because the Vanishing Species Example is an actual example with already existing implications and presuppositions from the audience. Routley claims that »the behaviour of the whalers in eliminating this magnificent species of whale is accordingly quite permissible - at least according to basic chauvinism. But on an environmental ethic it is not« (208). The point is that chauvinism, which is the underlying morality of consumer society and the logic of the free market, is simply blind to the ethical problem of making the world of such a species as the blue whale poorer by hunting.

Both examples, The Great Entrepreneur Example and The Vanishing Species Example, are much closer to the *Lebenswelt* of the audience than The Last Man Example. Industrialism and consumer society have been fundamental experiences of the western world and were especially dominant in the 1970s. Using these examples, Routley managed to point at the blindness of industrialist and consumer mentality towards nature and its value. They induce obvious intuitions which protest against the deeds of the industrialist Mr. Last Man and the whale hunters, and which also succeed at pointing at the wrongness of the senseless destruction of nature. Neither production nor consumption appears to be as valuable – i.e., having final value - which would justify the destruction of nature.

5. The Context of *Don't look up*

The movie *The Planet of the Apes* and Routley's *Last Man Thought Experiment* both focus on a problem recognized not so long ago. The film *Don't Look Up* focuses on challenge mankind has known about for at least half a century. The predictions proposed in the 1972 report proved to be valid, and the processes harming nature persist and bring us closer to the breakdown of natural and social systems (Sjøvaag 2016, 377–390). It is difficult to doubt the thesis saying that we are close to the limits of development, more precisely at the limits of the endurance of nature, which is necessary for the survival of mankind. Certainly, there is a minority that doubts the reality of the natural crisis or global warming. This fact, however, strengthens the case that no one with minimal awareness and information can evade the question. The threat has become permanent by now.

6. *Don't Look Up* as a Thought Experiment

If we want to summarize *Don't Look Up* in the form of a thought experiment, the Last Man Example is not the most helpful for this purpose—not only because in the movie there are people who survive the cataclysm, but also due to its particular perspective. In the Last Man Thought Experiment, we are forced to evaluate the actions of another person, social actor, group or people intuitively, while the movie – through its unmistakable analogy with our world –, places its viewers in the middle of the story which runs towards a catastrophe.

Concerning literary or historical parallels, the story of *Don't Look Up* resembles most closely those prophetic biblical stories in which the prophetic voice is disregarded, and the prophet must suffer humiliation and persecution. If we had to reformulate the story of the movie in the form of a thought experiment, the Trolley Problem Thought Experiment suits this purpose the best:

Imagine that we are in San Francisco and plan to travel on one of its famous cable cars. We are waiting at the station along with our friends and some strangers to enter the vehicle. The crowd is growing, and we are forced to stand on the rails. Suddenly we see that a runaway cable car is barreling toward the station. We realize that if we don't stop it, the monstrous vehicle will run over the passengers waiting on the rails. At this moment we also get sight of a very fancy and expensive car parked nearby. Are the people waiting at the station – even if they have the chance to escape the collision – morally obliged to stop the runaway trolley by pushing the fancy, expensive car onto the rails, if this is the only way to save the lives of the passengers standing on the rails and unable to escape?

Our first intuitive response is certainly a clear 'yes', since people's lives are more important than things, no matter how expensive they might be. But how does it change our intuitive moral response if we provide some additional information concerning the uniqueness of the cable car?

As the cable car advances toward us, we find out that it is unique and irreplaceable, since it was the first cable car traversing the streets of San Francisco. We also know how much income it produces each year as a tourist attraction for the city. Moreover, it is also clear that pushing the fancy and expensive car on the rails is not the only way to stop it. If someone was fast enough to jump into the cable car and was able to pull the emergency brake, the cable car could be stopped without any damage. This plan, however, is very risky and less secure in comparison to pushing the fancy expensive car onto the rails. Although we know that the latter option would result in the destruction of San Francisco's historic first cable car, from an ethical point of view, it is more important to save the human lives at stake.

Similarities emerge in the case of the asteroid approaching the Earth: the protagonists of *Don't Look Up* canvass the world of politics and media in a prophetic fashion, warning people of the imminent danger. The President of the United States still opts for bringing the asteroid to the ground via a very risky operation – instead of destroying it in a straightforward manner, with the help of rockets.

The reason motivating this decision is the valuable precious metals carried by the asteroid. While the two protagonists realize the real danger immediately and can act responsibly, decision-makers and media personnel act differently than one would intuitively – and after rational consideration – respond to the situation. This is the key to the satirical character of the movie.

Don't Look Up provides its viewers with a reverse thought experiment: it tells a morally univocal story – since the scenario with the asteroid threatening all life on Earth cannot be understood as a moral dilemma, just like the triggered intuitive response cannot be labelled as uncertain. The powerful effect of the film lies in the tension between this clear ethical evaluation of the scenario, and the irrational actions of most of the film's characters.

7. *Don't Look Up* as Social Criticism and the Power of Prayer

The film is a powerful criticism of the functional differentiation of societies, namely that the different segments of society – such as economy, industry, health care, education, or religion – each operate according to their own distinctive logic and are unable to transcend the inner rules of their functioning (Luhmann 1977). The means for this criticism are the irrational reactions of the characters to the news of the asteroid approaching the Earth: the hosts of a morning show talk about this imminent danger to mankind and all nature as entertainment news, while the President of the United States is only interested in how the asteroid might affect the upcoming election. Neither the logic of entertainment nor the logic of politics are capable of addressing this simple challenge. One important message of the movie is the need for an all-embracing logic – with the responsible subject at its heart, capable of recognizing problems in a global way and acting accordingly –, transcending the particular logic of the different segments of society.

When considering the fundamental needs of human beings, the current segmentation of the social system might prove itself irrational. This culminates in the prayer of the president's son and chief of staff:

»I've been noticing a lot of prayers recently, for people during this time, and I commend that. But I also want to give a prayer for stuff. There's dope stuff, like material stuff, like sick apartments and watches and cars, and clothes and shit that could all go away, and I don't want to see that stuff go away, so I'm gonna say a prayer for that stuff. Amen.« (Cohen 2021)

This prayer is the most radical criticism of consumer society, since in a borderline situation when the existence of mankind is at stake, it holds things as important, which – at least in this situation – prove to be irrelevant. Borderline situations and prayer both create the space for absolute honesty by virtue of their character. Just as consumer societies are only able to function with the logic of tri-

ggering, sustaining, and increasing consumer appetite, the president's son in the movie is unable to recognize what is important in life.

In contrast, it is Yule – a youngster gamer and son of a born-again Christian mother –, who uses authentic religious language and is able to pray authentically in dire circumstances:

»Dearest Father and Almighty Creator, we ask for your grace tonight, despite our pride. Your forgiveness, despite our doubt. Most of all, Lord, we ask for your love to soothe us through these dark times. May we face whatever is to come, in your divine will, with courage and open hearts of acceptance. Amen.« (Bellm 2022)

This prayer proves to be a plea in favour of religious traditions and institutions responsible for the handing down of religious tradition from one generation to another. Yule relies on the religious language he learned from his born-again Christian mother, whose religious community he has turned his back on. This prayer is authentic in two ways: it is in accordance with the tradition of saying grace at supper, and it mirrors the reality of those around the dinner table and makes hope present even in this hopeless situation. (Platovnjak and Svetelj 2021, 798)

8. Conclusion: Look Up!

If we put the two stories – that of the Last Man Thought Experiment and the movie *Don't Look Up* –, the pioneering character of Routley's imaginary scenario becomes visible immediately. He tried to approach a reasonably new problem in a novel way. Despite its academic achievement concerning the intrinsic value of nature, it had little effect on the cause of environmentalist pursuits since it drew a sharp line between man and nature. All versions of the Last Man Thought Experiment ended in an imaginary world without the presence of human beings. This distancing from the existential relevance of nature was a necessary element in each of these scenarios since they were designed to support the idea of intrinsic value.

It is different from the story of *Don't Look Up*, since the asteroid approaching the Earth is an obvious analogy to the environmental crisis – more particularly to global warming – which is threatening our world. In contrast to the *Last Man Thought Experiment*, the film tries to point at a value not independent of human cognition, but rather within the *Lebenswelt* of human beings. It does not take the intrinsic value of nature as its starting point, but rather pursues the answer to the question concerning the existentially valuable things in human life: What is worth living for and what is not? This contrast is displayed by the 'prayer for stuff', uttered by the President's son on behalf of the public, and the penultimate scene of grace at the dinner table, which does not intend to inform the public but is an act of those present addressing God, who creates and sustains humankind and the world both.

The film formulates a clear message for everyone: decision-makers should surpass the logic of particular goals, and everyday people are urged to discover what is important here and now in their lives. The last scene seems to be the odd one out since it is not an organic part of the thought experiment proposed by the film. Still, it provides us with a new theological perspective: we can look at humankind from beyond our current history, watching human beings' floundering steps on Earth with mercy and love (Malmenvall 2018, 389).

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