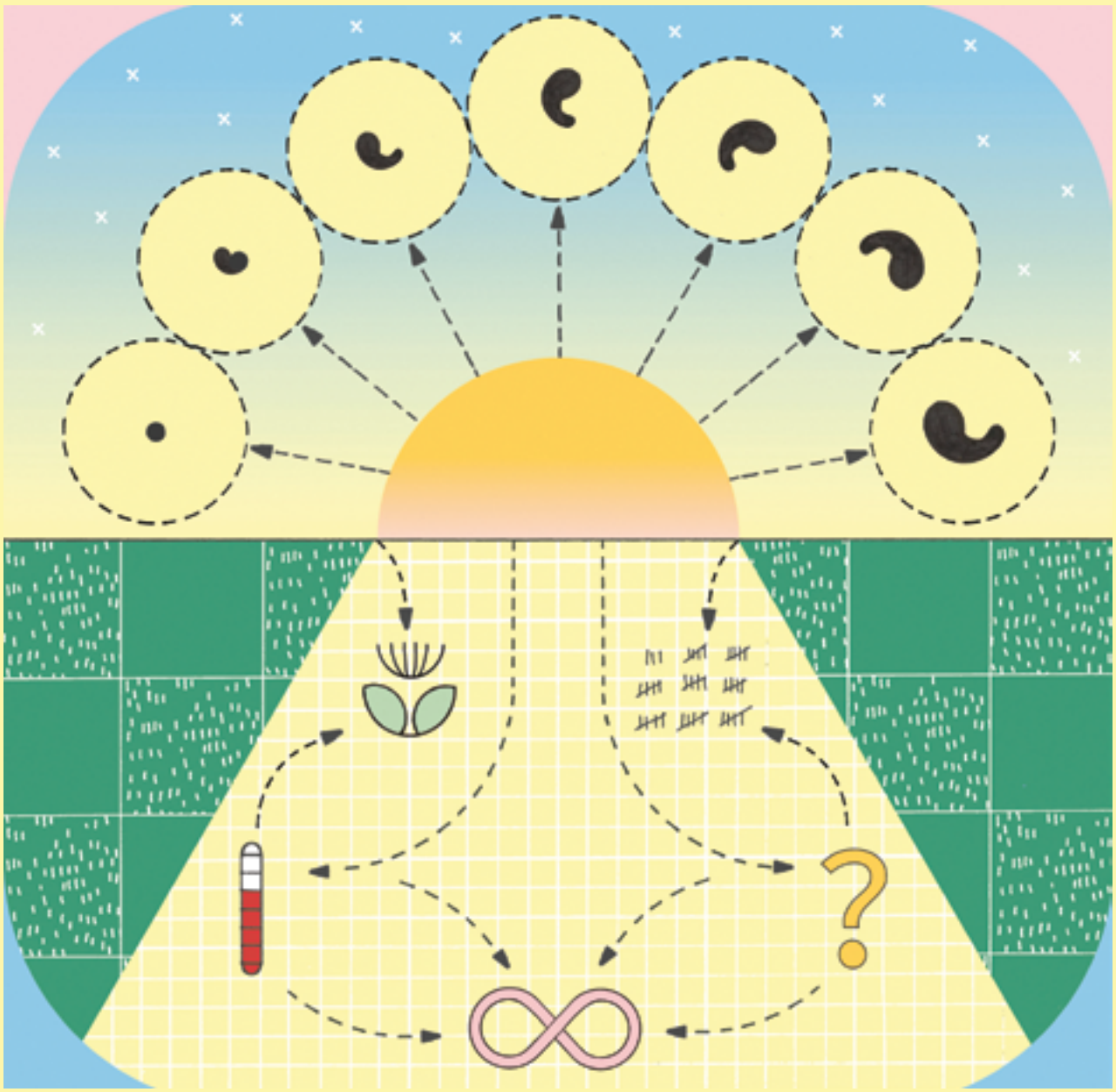
FARSIGHT

futures reviewed



Safeguarding Tomorrow

Humanity's Responsibility to Future Generations

COPENHAGEN INSTITUTE FOR FUTURES STUDIES

We equip and inspire individuals and organisations to act on the future, today.

COPENHAGEN INSTITUTE FOR FUTURES STUDIES

FARSIGHT

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Editor's Note

How can we safeguard the interests of future generations in the present? For proponents of 'longtermism', which argues that we have a moral obligation to take actions that maximise wellbeing for future people, the answer would be to first ensure they have a future at all. If the present moment, as some futurists believe, is the most dangerous time in our history, it follows that our main responsibility to posterity is to steer clear of existential risks like super viruses, malignant AIs, nuclear war, and runaway climate change. Detractors of longtermist thought have rightfully criticised its tendency to neglect present-day problems, its attempt at reducing human life to measurable units of 'well-being' or 'pain', and its overconfidence in our ability to predict the long-term consequences of our actions. Yet its core idea, that we have a moral obligation to the unborn, is difficult to disagree with. So, what would the interests of our descendants be if they could voice them, and how can we uphold these interests in the present? This edition of FARSIGHT is dedicated to exploring the practical, ethical, and moral implications of these difficult but important questions. I hope you enjoy reading.

CASPER S. PETERSEN

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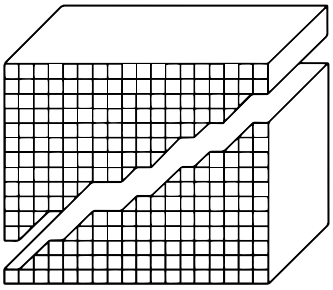


SOURCE: INTER-PARLIAMENTARY UNION
LINK: IPU.ORG/YOUTH2021-PR
PHOTO: MICHAL MATLON

Greater Political Representation for the Young?

Half of the world's population is currently under 30 yet only 2,6% of parliamentarians globally fall within this age group. This discrepancy is causing some to call for greater representation of the youth in political processes. New studies show that a third of those under 30 surveyed would consider running for political office, compared with only a fifth of those over 30. Is a sea change on the horizon?

Rights for Digital Minds

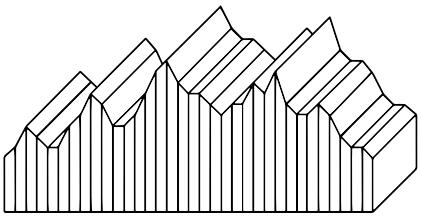
Should we welcome intelligent digital entities as our equals? In a recent paper, researchers from Future of Humanity Institute at Oxford University suggest that we begin treating our infant AIs with respect and lay the groundwork for a considerate and welcoming approach to digital minds which avoids outcomes analogous to factory farming.

SOURCE: FUTURE OF HUMANITY INSTITUTE
LINK: TINYURL.COM/MRZ8TXBK

Global Divide in Young Generations' Outlook for the Future

The youth's attitudes toward the future are sharply divided geographically. More than nine in 10 young people in Kenya, Mexico, China, Nigeria and India are optimistic about their futures. In countries like Sweden, France, Australia, and Great Britain, only 6 or 7 out of ten feel the same way. In the Global North, the lingering impacts of the financial crisis as well as a loneliness epidemic and a collective sense of scarcity of opportunities are part of the explanation, while the youth in many nations in the Global South feel as if they have collective agency and power to affect change, in part due to the relative size of young generational cohorts compared to older ones.

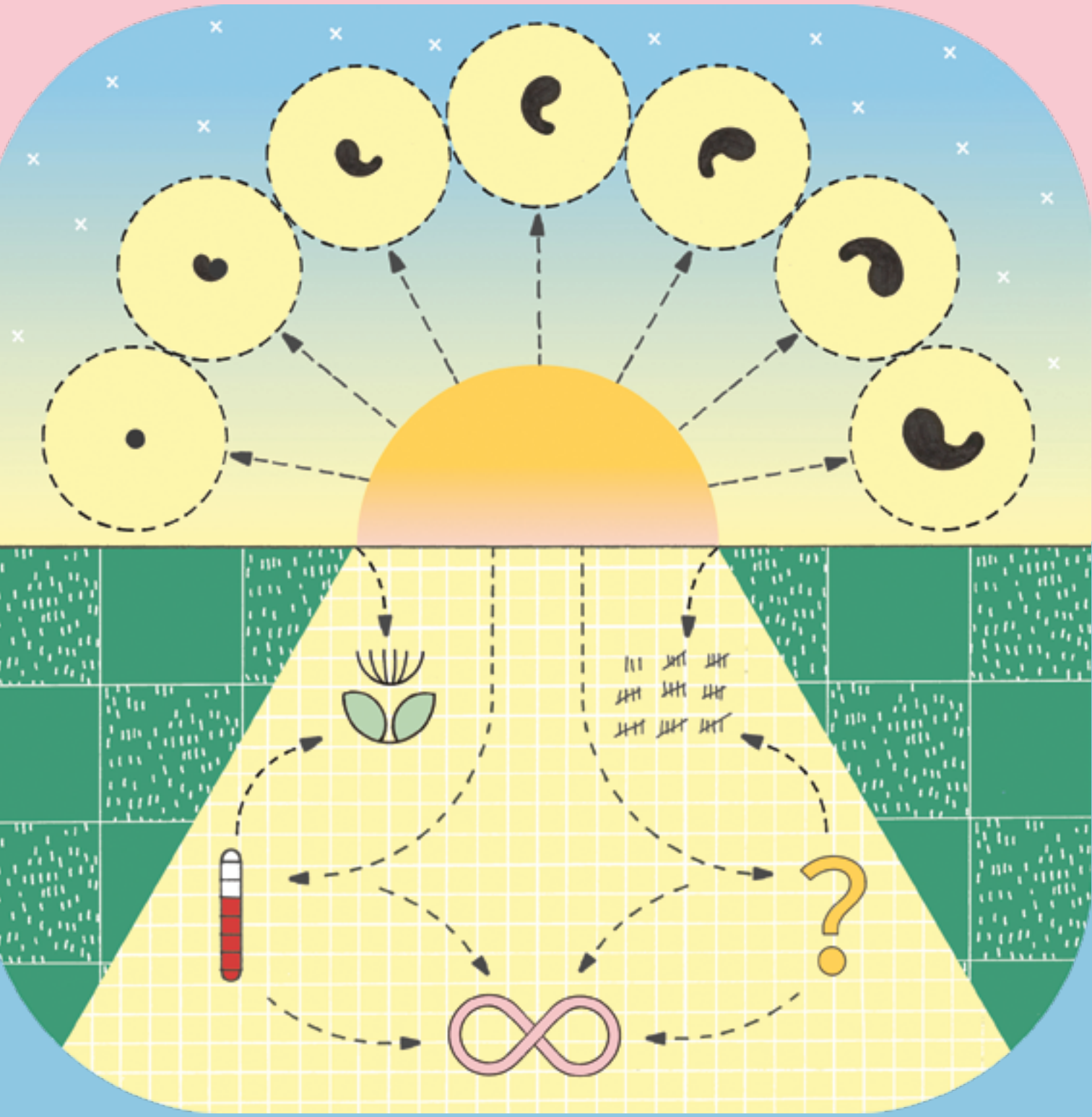
SOURCE: IPSOS
LINK: TINYURL.COM/RUPPBFP5



SOURCE: PEW RESEARCH, PHOTO: FAHRUL AZMI
LINK: TINYURL.COM/2RDXY7X3

India as Asia's Giant

In early 2023, China's National Bureau of Statistics announced that the country's population had begun shrinking for the first time since the 1960s. China, the world's most populous country since at least the 1950s, is now neck-to-neck with India, which may have already surpassed the East Asian nation according to some estimates.



The High Cost of Living in the Moment

'Present bias' permeates much of our decision making and puts the lives of those yet unborn at risk. What can we do about it?

TEXT
CASPER SKOVGAARD PETERSEN
ILLUSTRATION
SIGNE BAGGER

What is the value of a human life? An impossible question that, depending on who you direct it at, can have some surprisingly concrete answers.

Ask a healthcare economist and they might tell you that the so-called 'value of a statistical life year' is an important point of reference used by planners to quantify our collective willingness to pay for health measures that prolong lives. In Asia and Europe, that willingness translates to around 5 times GDP/capita, while citizens in North America are prepared to invest almost 7 times GDP/capita for each life year gained.[1] Although varying greatly between regions, the median international pain point for keeping a human being alive for one year is calculated to precisely 164,409 Euros. The dismal science indeed.

In the US, economists have adopted a similar approach to the question that helps them avoid the moral quagmire of having to come up with a value themselves. They estimate the worth of an American life based on the willingness of the public to make risky choices or to pay for safety features in the products they buy. Cigarettes, cars, dangerous jobs, smoke alarms, bicycle helmets: When everything is added up, the sum comes to somewhere around 10 million USD.[2] Beyond serving as a calculation exercise for morbid bean counters, this number is a benchmark used on a policy level to assess whether implementing life-saving safety regulations can be considered worth the expenditure.

Of course, such equations don't tell us much about the biases that tend to skew their application in practice, or how highly context-dependent valuations of this nature tend to be, especially when lives are at stake. Perhaps unsurprisingly, our impulse to come to the aid of those in immediate distress, no matter how costly, tends to outweigh our motivation to introduce measures that prevent similar loss of life in the future. In other words, we are highly motivated to save *identified* human lives – trapped miners or a child with a terminal disease – and less motivated to save those *statistical* lives who might be helped by introducing a new safety regulation, public health program, or environmental standard.

To make matters more convoluted, statistical lives can be broken down into two subsets: *predictable* and *unpredictable* statistical lives. For an illustration of their

1 Koh: "What is the economic value of a life year? An international comparison", Deutsches Krebsforschungszentrum (2018), shorturl.at/FKLW4.

2 W. Kip Viscusi: "Pricing Lives: Guideposts for a Safer Society", Princeton University press (2020), shorturl.at/vzHX7.

difference, consider the example of a factory – one that is so run-down that keeping it going poses severe risks to the workers and surrounding residents.

The factory owner is faced with a choice between two costly safety measures. The first involves installing filters that decrease the deadliness of the factory's fumes. The lives lost or saved here are somewhat predictable because they can be estimated by calculating things like exposure and toxicity.

The other option is to instead replace some of the factory's old and potentially faulty equipment. Not doing so comes with a small risk that a major accident like an explosion will occur sometime in the future which will endanger the lives of many employees and locals. There is no telling whether the equipment will malfunction or not, so there's a chance nothing will happen, which would have made the air filters a better investment. If an accident does happen, however, the destruction and loss of life will be substantial. The people at risk here are *unpredictable statistical* lives, and they're the kind of lives that we tend to discount the most and value the least. In fact, according to researchers from the Society for Risk Analysis, we value them even lower than we should, statistically speaking.

The explanation for why, they write in a research paper,[3] comes down to two factors. One is the difficulty of estimating the probability of rare events (like an explosion at a factory). The other is the incentive to reduce care for unpredictable statistical lives in favour of providing care for equivalent, predictable statistical lives (the lives saved each year by introducing air filters). It's comparable to how our motivation to save the trapped miners is stronger than our motivation to prevent other mine shafts from collapsing in the future.

3 Marc Lipsitch et al.: "Underprotection of Unpredictable Statistical Lives Compared to Predictable Ones", Risk Analysis (2016), shorturl.at/ISWX9.

It's reasonable to object to such hypothetical scenarios by pointing out that both air filters and equipment that won't explode should be required at factories by law. Although it's hard to disagree with this view, we are often forced to make difficult decisions that weigh the cost of human health and wellbeing against other considerations. Perhaps the most pertinent example of this came during the Covid-19 lockdowns, which made the trade-offs between human lives saved and economic damage caused apparent.

If we imagine not one, but thousands of factory owners facing the same dilemma as the one sketched out above, then it's easy to see how the tendency to favour the predictable outcome over the unpredictable one might skew priorities on a societal level.

The same can be said about our tendency to value the relatively predictable present higher than the uncertain future.

It's an unfortunate truth because so many of the risks facing us in the decades to come fall under the unpredictable category. Pandemics, for example, are certainly preventable if the right measures are taken before they strike. But such measures are never simple, and they are always costly. We also have no way of knowing when the next infectious disease will get out of control, or exactly how deadly it will be.

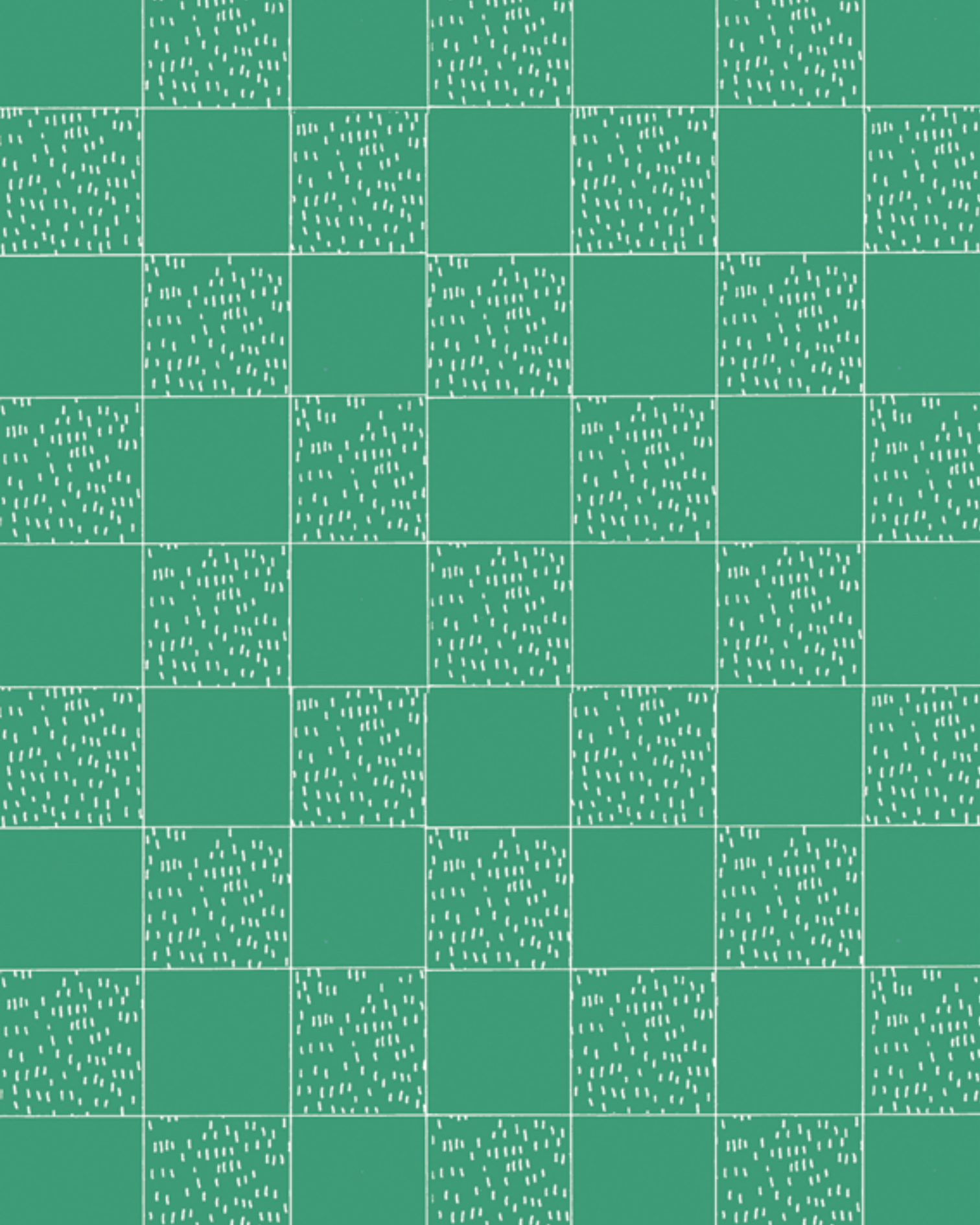
Add to this that incentives for investing in measures to mitigate low-probability threats are generally weak, as risk analysts are prone to point out. We may imagine a range of disastrous potentialities (futurists are especially adept at cooking up such *wild card* scenarios); but if no one takes meaningful action to prevent them from occurring, pondering the risk of catastrophic outcomes becomes nothing more than an academic exercise.

Past failures to cut carbon emissions is perhaps the best example of this dynamic in action. Although there are already serious human costs incurred in the present, the cumulative effects of centuries of pollution will greatly increase the number of risks that future generations will have to contend with. Once certain temperature thresholds are passed, climate tipping points can trigger potentially devastating cascading effects.

Even before reaching these major tipping points, we know that climate threats will multiply. Threats like the floods experienced in Pakistan in the summer of 2022 or across South Asia in 2020, which killed thousands of people and cost astronomical sums in material damage. Such violent weather outbursts will only become more frequent in the future. In fact, researchers have estimated that children born in 2020 will experience between two and seven times as many extreme weather events during their lifetimes compared to people born in 1960.[4] On a local level, however, it's very difficult to predict when such an event will occur, and how severe it will be.

4 Wim Thiery: "Intergenerational inequities in exposure to climate extremes", Science (2021), shorturl.at/lmBM3.

It's easy to see how the consequences of our actions are easily ignored when doing so requires taking things into account that don't yet exist: people not yet born, tipping points not yet reached, accidents or events that aren't yet likely to occur. The risks are manifold, large but out of focus, and have so far been easily ignored by kicking the proverbial can of political action down the road. Since the generations alive today will not experience the worst of what's in store, we are essentially taking out loans that will have to be repaid, with interests, by future humans. To make matters worse, we can't be sure that the damage caused now will ever be reversible, no matter how wealthy or technologically powerful our descendants will be. It's an example of the 'tragedy of the time horizon', where entrenched short-termism undermines our ability to make decisions with long-term benefits – a kind of delayed gratification marshmallow experiment played



"Suggestions for how to achieve more intergenerational fairness come in different shapes and sizes, from 'asymmetric voting' that gives the most weight to the wishes of those with a greater stake in the future, to wealth redistribution."

out on a global scale. We can be sure that it will eventually come back to bite us. Climate destruction, after all, is rarely good for business.

There are probably few who would disagree that we have a moral obligation to the countless people who have yet to be born but whose lives are nonetheless heavily affected by our actions. What can be done to ensure that their wellbeing becomes a central focal point in our decision making?

Suggestions for how to achieve more intergenerational fairness come in different shapes and sizes, from 'asymmetric voting' that gives the most weight to the wishes of those with a greater stake in the future, to wealth redistribution - including in the form of climate reparations paid by those who have benefitted the most from the fossil economy to those who suffer the brunt of its consequences.

There are also efforts underway seeking to ensure better political representation for unborn generations. Acting on behalf of people who do not yet exist comes with some obvious challenges, but inspiration for how to approach the task can be found in the Welsh Future Generations Commission, Malta's Guardian of the Future Generations office and other similar initiatives (see page 46). On the international level, we could hope to see the formation of an actual *Ministry for the Future*, a concept that was first explored in Kim Stanley Robinson's titular science fiction novel from 2020, which also describes a system of proxy voting for the yet unborn. The UN General Assembly took a small step in this direction in 2022 with the publication of a "Declaration on Future Generations". Included in its recommendations are a 'generational test' to evaluate decisions and policies against their long-term impact on future generations, as well as the development of an 'Intergenerational Sustainability Index'.

Economists, too, have made some suggestions. One which seems especially prescient in our era of widening intergenerational gaps was proposed already in 1974 by Nobel Prize winner James Tobin. He suggests a system of institutional spending regulations that would divide endowed assets equally among current and future generations, writing that "the trustees of endowed institutions are the guardians of the future against the claims of the present. Their task in managing the endowment is to preserve equity among generations."

Although there is no shortage of good intentions, the fact remains that that the balance sheet of intergenerational equity is still heavily skewed in favour of the present. It will remain so until we start factoring in the impact of our decisions on humans in the far future rather than treating them as an afterthought. It will require making uncomfortable concessions today, but then, it will be our children and their descendants who will benefit from our foresight. ■

Humanity in Numbers

We can't know exactly how many people will be born in the future. Yet current population projections suggest that if we manage to avoid the greatest existential risks, the potential of humanity in numbers alone is immense. The typical lifespan of a mammalian species is about 1 million years, giving us perhaps another 800,000 years if we manage to steer clear of disaster. Even if we survive as a species for another 200,000 years, the total number of humans we can expect to succeed us is staggering.

Every circle (•) corresponds to 8 billion people, the number of people alive today.

Each row represent the lives of

256

BILLION people

3143

circles represent all people who might be born in the next 200 000 years

109

BILLION

All the people who have lived and died

8 **BILLION**

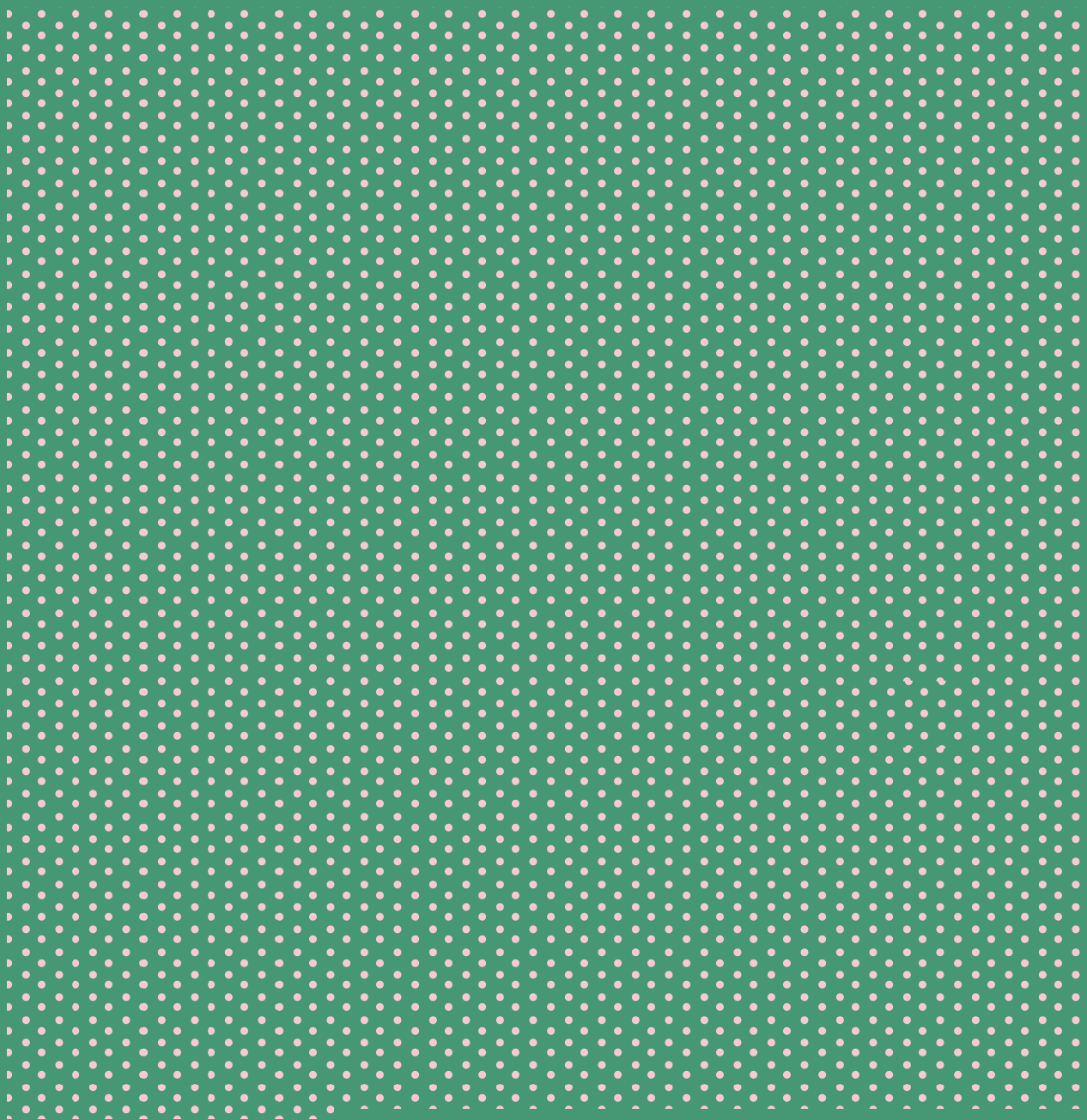
All the people alive today

200,000

years from today: as many years into the future as humanity has existed so far

PAST

PRESENT



FUTURE

Sources: Max Roser, "Longtermism: The future is vast – what does this mean for our own life?" Our World in Data (2022) bit.ly/3EpKffE. Modified by FARSIGHT.

The Future Will Also Be Here Tomorrow

TEXT
TOKE HANGHØJ

PHOTO
BOBBY MANDRUP
BEOWULF SHEEHAN

Although Kristian Leth describes himself as a storyteller with an aversion to grand narratives, the Danish author's upcoming book *Fremtiden er der også i morgen (The Future Will Also Be Here Tomorrow,* April 2023) is nevertheless born out of a desire to give a new sense of purpose and direction to the way we think – and dream – about the future.

Leth, a father of three, wrote the book for young people with the intention of inspiring them to build more hopeful stories for tomorrow which break with the pessimism characteristic of our age.

We met with him for a talk about intergenerational responsibility, the limits of rationality, questioning authority, and the importance of inspiring by example.

Why did you feel the need to write this book?

When my children reached the age where they started asking big and difficult questions about life, the planet, and the future, I had to admit that I didn't know what to say. As a parent, when your children come to you with questions and fears about the future, you want to have answers ready. I just didn't.

It was an incredibly difficult period. I was hit by such negativity and pessimism. I live in New York, and I remember driving through the city from Newark Airport to Brooklyn while thinking: all of this, what is it? How is this ever going to work? I was haunted by an overpowering feeling that nothing could possibly make sense.

So, what I started to do was to begin reading and researching in order to build a better understanding of the actual state of the world. I started talking to climate researchers, futurists, historians, and statisticians. What I found out is that the world is better off on a lot of measurable parameters than it has ever been before. Although I am suspicious of big convenient narratives, it was reassuring to discover that my own anxiety and fears were not necessarily reflected in the facts. The question I then had to ask was why so many people feel anxious about the future.

This book is not intended to dismantle the prevailing paradigm, or to explain that the world is more complicated than what you might think. But I simply had a feeling that for young people, we almost owe it to them to present some sort of vision. That's why I wrote the book.

The title is an affirmation that the future also exists tomorrow, and in all of us. We should start from there.

You're saying that we owe our children a vision, something to believe in. There is currently a movement underway seeking to give children a political voice. Others think that as a parent, one should avoid giving children definitive answers. Are you consciously going against the trend here?

I believe it's a complete abandonment of our responsibility if we think that children should find all the answers themselves. We live in a culture that is obsessed with rebellion, where not conforming to established dogma is considered a virtue itself. There are all kinds of reasons why scepticism towards authority makes sense, but it's as though we've taken it to such an extreme that the adults no longer have answers to anything. It's a ridiculous illusion which has the effect of leaving the young completely alone with the responsibility. All young people take cues from adults in some way, whether through defiance or agreement.

Many adults are weary and anxious because they have lost faith in the future – or at least they talk as if they have. If you go to a dinner party, you might get the impression that the world has gone to hell. All politicians lie. They all have our data. Earth is burning up. This is what many of us adults talk about: the state of the world, wrapped up in edgy statements that are thrown around carelessly. And of course, the children hear it. So, while we pretend that we don't want to impose our beliefs on them, we risk instilling a kind of nihilistic, postmodern worldview in them. The idea that children should be able to define their own time and world is an illusion, yet the role of the authority figure has become so vilified that we, as parents, don't want to take it on.

Do you think this disavowal of authority has something to do with a more general rejection of the common history, culture, religion, and institutions that used to frame our world view?

Understanding history doesn't just mean memorising dates and events. It means putting yourself in a context that is larger than the here-and-now. Not being able to do so can lead to one of the most widespread disorders of the mind today, which is this sense of living in a singularity – of living in a time that is moving faster than ever, that has no reference point, and that slips away between your hands like a social media feed.

It's not a disorder that comes from people not having read enough books. Rather, I see it as linked to a kind of temporal self-sufficiency: the idea that today is what's important, that it doesn't matter what happened before, and that the past is passé and therefore unimportant us.

I don't have a new narrative for the future to replace the old, dead ones. But I think we need to get some basic principles in place that include understanding ourselves as part of a larger continuous whole. Of course, history is always ideological, so the question is how we can put principles in place that are somewhat universal. That's one of the questions I try to probe in this book.

Futurists like to say that you can't understand where we are going by extending the past into the future. Even if we use rationality to understand where we are today, can we depend on it to give us a sense of where we are heading, or do we also need spirituality, mysticism, or perhaps even a wholesale rejection of rationality?

I think it's true that rationalism is the best tool we have in our attempts to understand the state of the world and where exactly we are right now. But what must come after that is what I will call 'faith', understood in the widest sense of the word – and not necessarily in any religious context.

We tend to view faith as some kind of optional add-on, but I think it fulfils a much more fundamental purpose. I see it as a fundamental part of human consciousness, a pre-rational 'faith' in meaning or purpose to life. Conversely, there is nothing in rationality that explains or justifies our existence on this planet, or why we get out of bed every morning. You see the shortcomings of the rational mindset in the antinatalism movement, which attempts to reduce the entire world to an equation in order to figure out what it will take for Earth to thrive. It's nonsense, and a kind of extreme utilitarian approach to understanding the world that doesn't help us find meaning. In a way, it's almost like a new Endlösung.

It's clear that the future is everything but an extrapolation of the past. That's why my book encourages us not just to think about the future, but to dream about it too. We have to turn on that switch before we can clean up the mess and begin our journey into the unknown.

What would be your message to others who might want to enable their children to dream, or to not mimic the pessimism of their parents?

I'm becoming increasingly convinced that if we owe our children anything, it's to help them build a will and a purpose in life. Not because we parents have all the answers but because if we don't provide them with these things, then we are essentially robbing them of the ability to build a meaningful life for themselves.

In a way, I can't think of a better description of parenthood than being responsible for giving your children structure in their lives – knowing full well that they will reject much of it and that, after having done so, they will be left with the best parts. To me, this a much more interesting way of approaching parenthood than trying to force a coherent ideology or an idea of what is and isn't true onto them. In structure there is a kind of meaning.

The regretful thing about it all is that it's not something you can tell your children. It's something you must show them. That, in a way, is the big test of parenthood. Children don't do what you say, they do what you do. This was another reason why I wrote the book. It's not about finding the right things to say; it's about inspiring by example.

I think we are obliged to try and plant hope in them. My point is that it's not something we can do unless we find that hope in ourselves first. That's the brutal truth. ■

The Future Will Also Be Here Tomorrow is released April 20th 2023.

"I'm becoming increasingly convinced that if we owe our children anything, it's to help them build a will and a purpose in life."

THE CASE FOR ANTI-NATALISM

TEXT
AUGUST LEO LILJENBERG
ILLUSTRATION
SOPHIA PRIETO

Meet David Benatar, the philosopher who argues for the voluntary extinction of the human race.

"Never to have been born is best
But if we must see the light, the next best
Is quickly returning whence we came."

– SOPHOCLES –

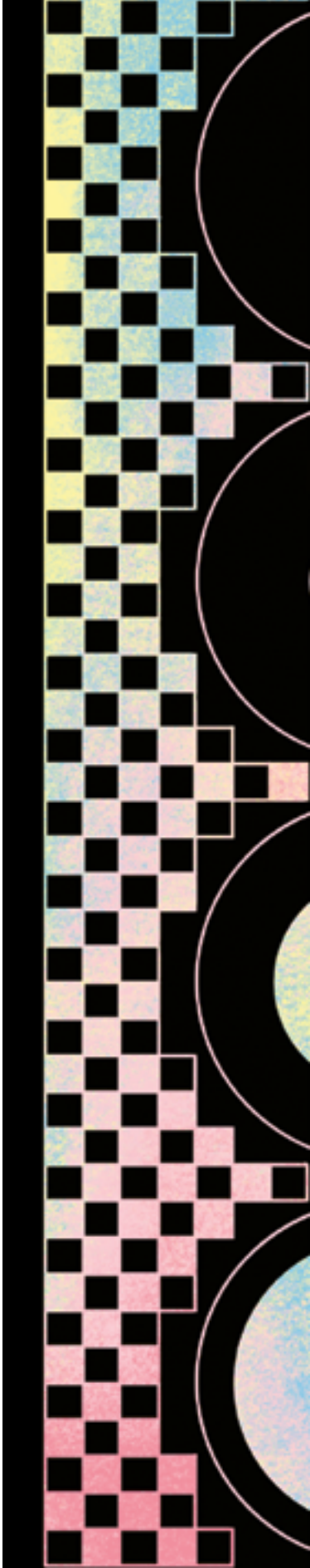
An apparently intuitive question is laid out to the progressively minded futurist: "Should we safeguard the interests of future generations?" For the staunch supporters of 'longtermist' ideology, the decisions we take today are laid on a weighing scale against the interests of a near-infinite line of potential human beings in the future. The obvious answer is – "yes."

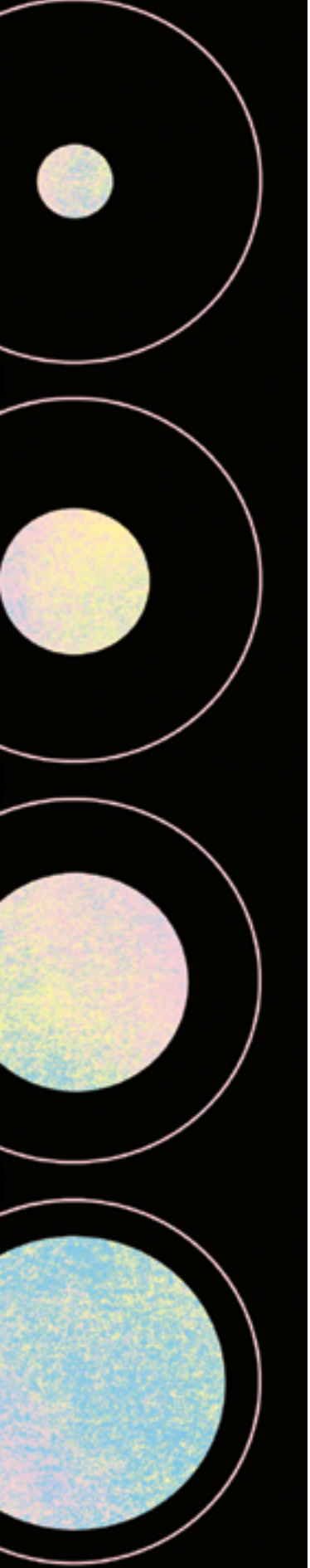
One of philosophy's most controversial figures agrees with this premise. The interests of the unborn, he asserts, are of the utmost importance. However, he arrives at a conclusion many find preposterous: that safeguarding the interests of the unborn can best be done by ensuring that they *never* are born. In fact, it is always immoral to bring sentient life into existence.

Professor David Benatar joins me on a Zoom call from Ontario, Canada, where he is on sabbatical leave from teaching moral philosophy at the University of Cape Town in South Africa. Since the release of his book *Better Never to Have Been* in 2006, Benatar has played a crucial role in edging anti-natalism into the mainstream, whether by defending his position against public intellectuals such as Sam Harris and Jordan Peterson, or by being the source of inspiration for Matthew McConaughey's misanthropic character in the HBO series *True Detective*. His views have also led him to being the brunt of countless ideological misrepresentations and personal attacks. Abandon any conclusions and biases you have already formed, for if Benatar's argument is sound, the necessary consequence is the voluntary extinction of the human race.

Firstly, Benatar mentions that it is important for us to distinguish between bringing a life *into* existence and *continuing* to exist: once a person is born, they have a vested psychological interest in continuing to live. His argument, however, does not concern such cases whatsoever. Rather, it surrounds the *potential* beings that we deliberate on bringing into the world.

Benatar explains that "when you deliberate whether to create a being, you consider two scenarios: one in which the person comes into existence and one in which the person doesn't. I think that the harms the person would experience in the case of existence would be bad. And if you choose to not bring them into existence, those absent harms would be good."





"In an ordinary course of events, a potential being would also have some benefits (or pleasures) within their life that would be good. But if we fail to bring them into existence, the absence of those benefits is not bad. And the reason why it's not bad is because there is nobody being deprived of those pleasures."

This intuition is reinforced by Benatar's argument resting on the premise that there is, on an objective level, simply more pain than pleasure in each life. We often think otherwise due to a range of psychological mechanisms, often evolutionarily pre-programmed to ensure our survival:

"Most people think that it's better that they came into existence. Most people think that their lives are, on balance, a net good," Benatar says. He points towards the optimism bias as an example reinforcing these beliefs: "There's a whole array of data establishing the variety of ways people tend to recall the good more than the bad, and how they tend to think that things will go better than they actually will. For example, if you ask people what their quality of life is relative to others, most people think that it's above average – which would be an impossibility."

There are other cognitive biases we hold that sow doubt about the reliability of subjective assessments of our own wellbeing. For example, instead of examining how good a human life is on an objective level, we tend to evaluate our level of suffering relative to that of other individuals:

"One effect of this is that you're going to filter out the bad things that are common to all people. And if there's a lot of bad that's common to all people, you're going to filter that out." Examples Benatar brings forth are the physical pains of sickness, the torment of eventual death, and a diverse range of other discomforts shared by all human beings. To further emphasise how widespread suffering is on an empirical level compared to pleasure, he encourages me to consider the phenomenon of chronic pain – pain that can just go on and on and on. "There's no such thing as chronic pleasure – it just doesn't exist. You can have chronic satisfaction; some people have that. But likewise, there also exists a chronic sense of dissatisfaction."

Lastly, Benatar reminds me how we often *adapt* to negative circumstances by shifting our baseline for wellbeing, obscuring the objective amount of suffering we might be experiencing in a given situation. "If you're in an accident, for example, and you lose the use of your legs, then you would have a drop in subjective assessment of wellbeing immediately following the accident. But even if you don't regain use of your legs, your subjective assessment of wellbeing will come up towards the pre-accident condition after a period of time."

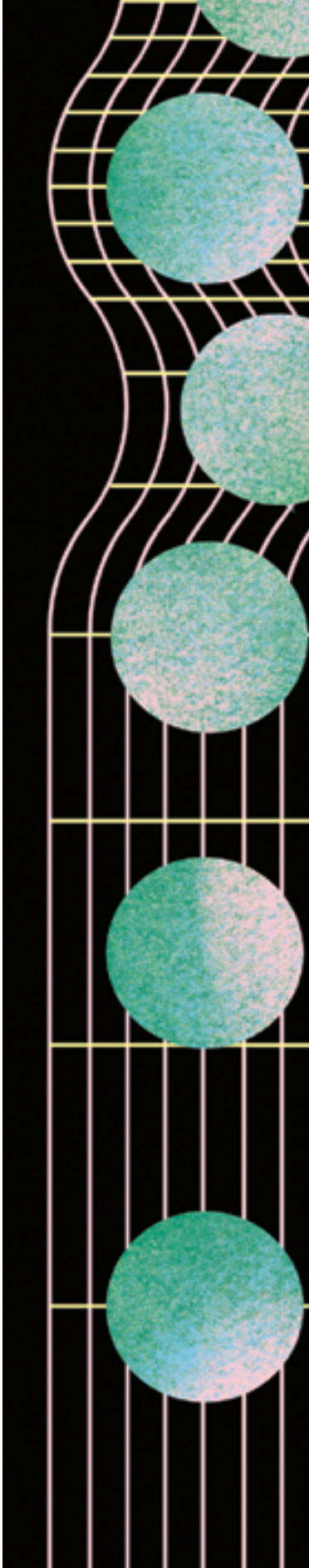
Benatar also believes that the empirical asymmetry between pleasures and pains is both quantitative and qualitative: not only is there more pain than pleasure in an average human life, but we instinctively treat them as two distinctive categories, rather than sensational counterparts: "You can ask people whether they'd take a deal. Would they be willing to be subjected to the worst pains imaginable for an hour if they could enjoy the most sublime pleasures for the remaining 23 hours of the day? And most people just won't take that."

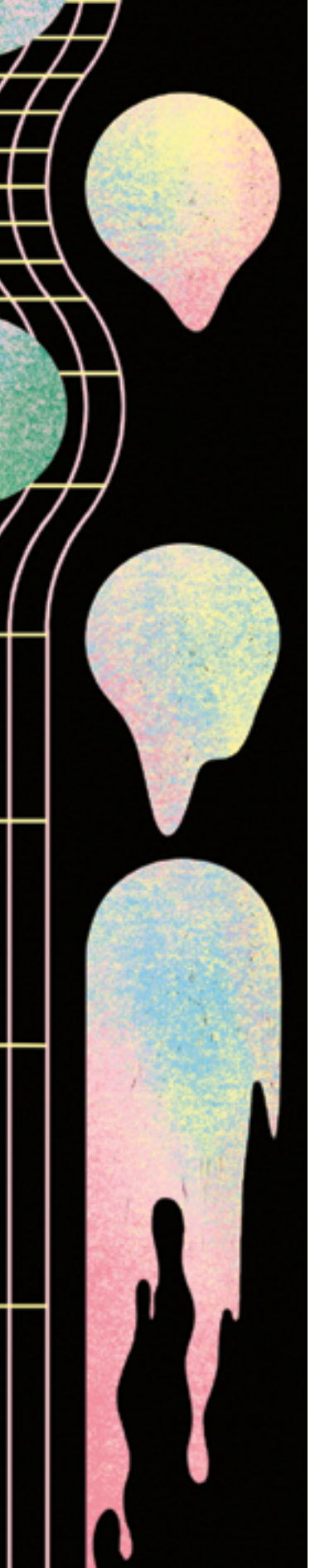
I feel compelled to ask a question which has been nagging me since the start of the interview. As someone working among futurists and science-fiction obsessives, I can't help but wonder how Benatar would respond to, for example, a future neural implant that alleviates the physical sensation of pain (while still reminding oneself that pain receptors are firing off). If we could artificially adjust the balance of suffering to pleasure via technology, would his anti-natalist conclusion be void? Benatar does not think so:

"Let's imagine that in some distant point in the future this happens. Would reproduction be justified in the interim? Here, the example that I like to think about is anaesthesia. Anaesthesia is a relatively modern phenomenon – it is from the 19th century. For hundreds of thousands of years humans were reproducing with the knowledge that if their child needed a tooth extracted, or a limb amputated, that this would have to be done without anaesthesia. Now let us imagine some ancient optimist who claims that one day there will be a point where future generations will have something called anaesthesia, where you can be put under and not feel the tooth removed or, or the limb amputated. I'd reply, as some other pessimistic philosopher at the time would say, 'can we really justify procreation for generation upon generation until we reach that point?'"

Could one not argue that it doesn't matter if we employ a range of psychological mechanisms to heighten our subjective wellbeing, even if on an objective level, our lives might contain more suffering than pleasure? Happiness arguably exists within the confines of an individual mind after all – who cares how much suffering there might be on an objective level?

Benatar disagrees with this as well, suggesting that this line of reasoning results in all sorts of absurd conclusions: "One analogy I like to think of is this: imagine somebody genetically engineers a slave. And although the slave suffers great hardship, they will ultimately endorse the position they are in – they will be happy to be slaves. Now you need to ask yourself whether it would be acceptable to breed a being of this kind. Would it be acceptable to keep producing more of the slaves that are content in the position, even though they are suffering a great deal?"





I briefly consider whether we are taking a too carnal view of pleasure and pain. One could argue that many of life's pleasures aren't necessarily located in the sensational by-products of our nervous system, but arise from abstract concepts unique to humanity, such as meaning or knowledge. Benatar doesn't seem to be believe that these things justify procreation either:

"If you include knowledge in your determinants for quality of life, then you have to also consider where on the spectrum from knowing nothing to being omniscient any one of us fall." Furthermore, striving for meaning is insufficient to justify existence too: a pre-condition of Benatar's anti-natalism is rejection of a God, culminating in something resembling Cosmicism, the belief that humans are ultimately insignificant in the grander scheme of existence. It follows from this line of reasoning that the innate limits of the human mind render the pursuit of many abstract ideals a largely futile endeavour. Indeed, Benatar's anti-natalism does not consider human beings special; his view that suffering is the fundamental contition of life extends to all sentient beings.

Having wrapped up Benatar's worldview, we shift the conversation to what can be done today to safeguard the non-existence of future generations.

"It's obviously an implication of my view that a world in which there are no more human beings, nor sentient beings, is a much better world than the one that exists now," he says. The absence of suffering culminating in the sweet bliss of planetary inertia. "If we were really interested in safeguarding the interests of future people, I think the way that we would do that is by not creating more of them. But at the same time, it would be naive to think that everybody is going to act on that view. One other measure is, thus, to pay attention to the interests of those beings that will eventually exist, even if you and some others are not reproducing."

In other words, Benatar's anti-natalism is not mutually exclusive from other movements like, say Effective Altruism, which aim to raise the standard of well-being and reduce suffering for future generations. It's a part of that same philosophy. He also rejects coercive anti-natalist policies – ideally, the road to voluntary extinction does not infringe on the rights of existing people. And although Benatar believes that we engage in a form of "delusional optimism" when assuming that we will voluntarily bring about a utopian future absent of suffering (whereas it being certain that one day all life on Earth will go extinct) he nonetheless believes that we can still make great strides in reducing suffering and unhappiness today.

Thus, a slow phasing out of humanity is Benatar's preferred practical method of

human extinction. In fact, by some estimates, our global population is already tending towards decline amid plummeting fertility rates. A gradual phasing out of the human race eventually resulting in a melancholic coda. A realisation that one's generation is the last. That this is the end.

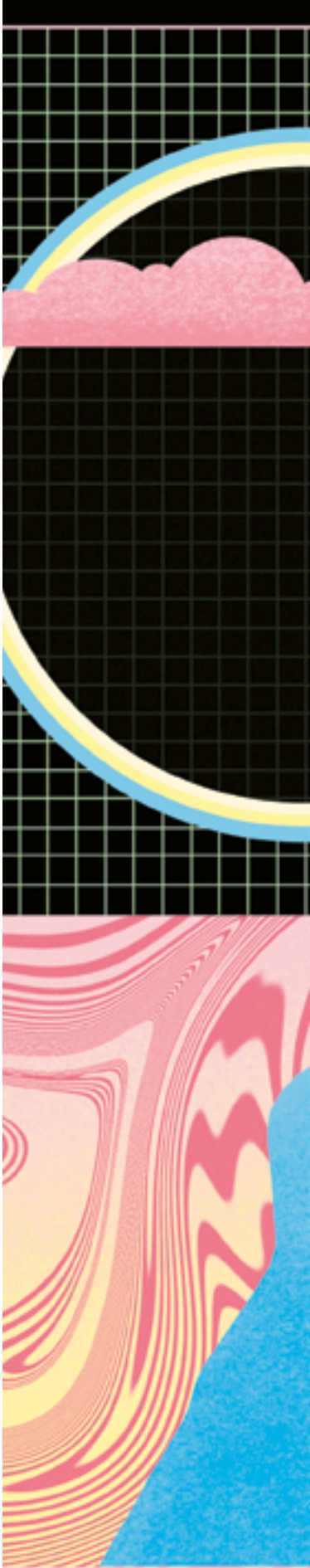
"When this happens, it is likely to be miserable. I suppose it could happen in an instant. But the much more likely scenario is that there will be considerable suffering for the final people on account of there not being new generations ahead. And some people might take that to be an argument in favour of procreation. I don't. I take that to be a kind of Ponzi scheme where you have to keep producing new generations of sufferers in order to try to keep the existing people from suffering the costs of not having new generations."

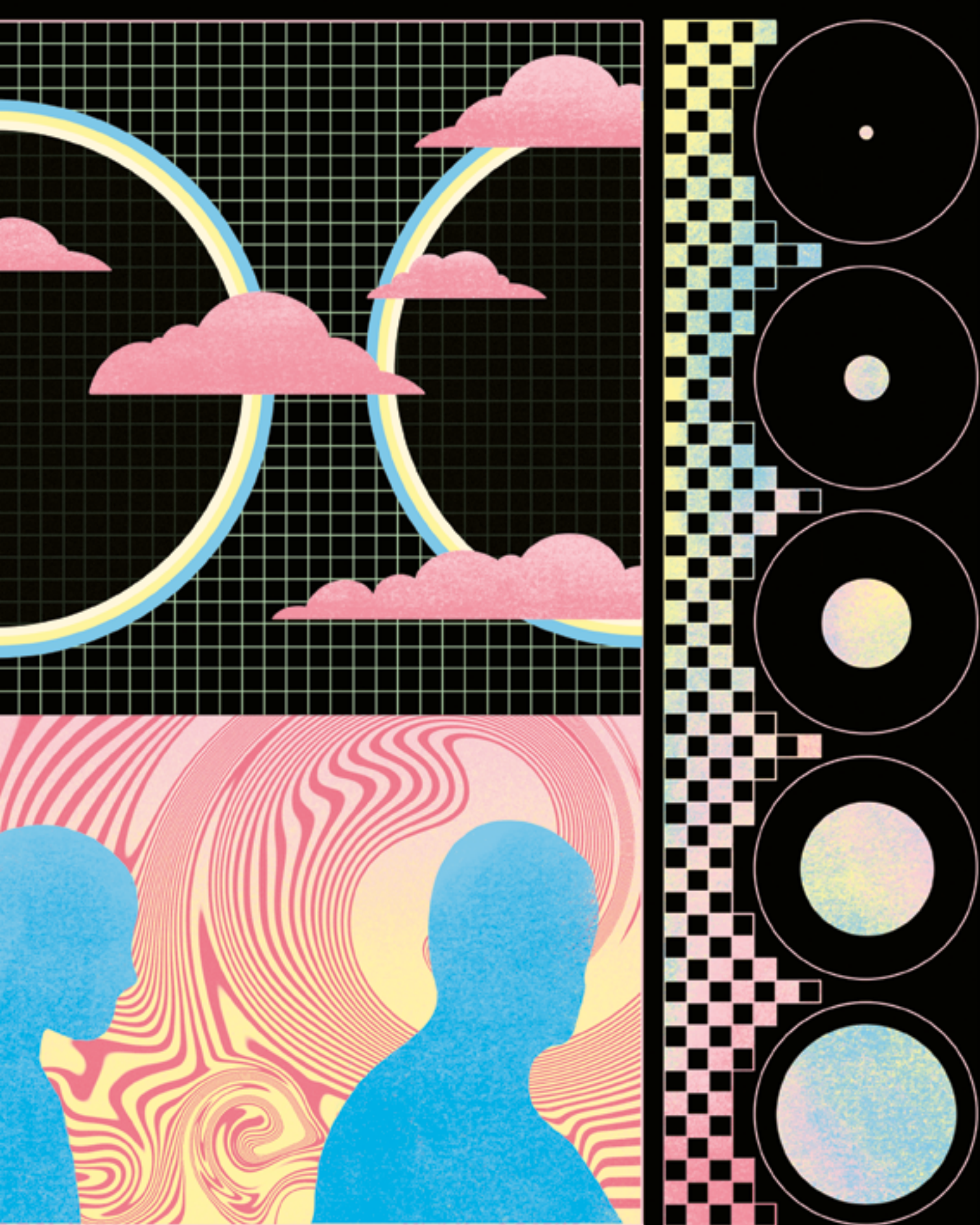
A world without humans. A world without sentient beings. The emptiness of thought swallowing the planet whole. This condition is not to be lamented either, Benatar says. "We may have a sentimental feeling that 'Gee, none of our legacies nor our civilizations will continue.' But if you're asking whether it's bad for the people who could have been there, then no, it's not." In fact, to Benatar, this state of affairs can only be good.

Questioning whether we can ever escape the confines of our own subjectivity, I realise that I will never be able to envision what a planet devoid of sentience would be like. It's a scenario that sends me into a nihilistic frenzy and David into a state of content. An hour of talking human extinction has worn me slightly down – I cannot help but wonder what kinds of criticism have been levied against Benatar given the perceived extremity of his views.

There is one question, he tells me, that always pops up, usually accompanied by some kind of abuse as well: "The most common one is, 'Why hasn't this guy killed himself?' And well, I just know that they haven't read or understood what the argument is," Benatar says, while letting out a brief chuckle. We then wrap up our conversation, contrast the weather in Ontario to Cape Town, and bid each other farewell.

If the philosophers of the 19th and 20th centuries were concerned with examining the human condition after the death of God – then perhaps the 21st will apply this examination to the unborn. As futurists, we assume an inherent value in posterity. We envision ways of bettering the conditions for potential humans via societal paradigm shifts and technological innovations. However, while engulfed by such imagination, we lose sight of a fundamental assumption: that existence is preferable to not being born at all. That the absurd mosaic of lived experience trumps an eternal future in the universe's womb. ■





A World Without Youth

TEXT
THOR SVANHOLM
ILLUSTRATION
SOPHIA PRIETO

Demographers predict that the number of people on Earth will peak this century. How will society be affected by an aging and shrinking population?

On November 15, 2022, humanity reached a staggering 8 billion people living on Earth. Yet although global population growth has been a constant throughout most of human history – accelerating to previously unseen levels during the last century – it will soon run out of steam. The next 50-60 years are predicted to be characterised by high rates of growth, but projections show that the pace of growth is slowing down, suggesting that the population curve of humanity will flatten out, and eventually bend towards decline.

In some countries, this shift has already occurred. With recent news of China entering a state of negative population growth ten years earlier than expected, there is much uncertainty and concern surrounding the impact of the ongoing demographic shifts on the political stability in the region, as well as on the global economy.

Similarly, the Japanese Prime Minister Fumio Kishida recently went public expressing worries over Japan's falling birth rates, warning that the country is on the brink of being unable to maintain social functions.[1] Japan's population currently numbers approximately 125 million. If birth rates, life expectancy, and net migration remains stable, the population will fall to 50 million by 2100, 10 million by 2200, and no more than 62 people by the year 3000, according to the Japanese Department for Population and Social Security Research.[2]

Although Japan's situation may be dire, the switch from growth to decline on a global level is not due until later this century. Despite this, population shrinkage has already become a hotly debated issue. Among those who have expressed concern over dwindling populations are Darrell Bricker and John Ibbitson, authors of *An Empty Planet: The Shock of Population Decline*. They argue that most publicly recognised population projections are too optimistic in their expectations of continued growth, and that the disruptive social and economic effects of declining birth rates will therefore start setting in much sooner than expected. When facing population collapse, the authors believe, it will be the countries embracing immigration with attractive living conditions that fare best, while those clawing to political isolationism and protectionism will fall victim to their own short-termism.

Of course, Bricker and Ibbitson are not the first to issue a warning. Nor are they the first to point out the considerable uncertainty surrounding the most cited population projections, which often reach almost a century into the future. A glance at some of these projections will reveal major disagreements over when the size of the global population will reach its apex, as well as when growth will turn into decline. The United Nations' Population Division, for example, estimates that we will peak around 2080 at 10.8 billion and eventually flatten out towards 2100. The International Institute for Applied Systems Analysis, on the other hand, projects that we will reach 9.4 billion in 2070 before

1 Kentaro Iwamoto: "Kishida says Japan on 'brink' of social dysfunction as births fall", Nikkei Asia (2023), tinyurl.com/mubhxrkj.

2 Stuart Gietel-Basten: "Japan is not the only country worrying about population decline – get used to a two-speed world", The Conversation (2016), tinyurl.com/54r5b4df.

steadily falling to 9 billion at the end of the century. One of the most radical projections, authored by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington, suggests that we will reach 9.7 billion already in 2064 before falling to 8.8 billion in 2100. The IHME estimates that the global fertility rate could decline to 1.66 children per woman by 2100 – in comparison to the 2.3 per woman today – which means the global population would drop as low as 2.3 billion by the year 2300.

Despite their differences, what most projections have in common is the assumption that the global population will, at some point, reach its peak, after which it will start dropping. Many of the reasons for this projection are identical to why the growth rate has been falling since the 1950s. One major factor is increasing reproductive freedom. As women, particularly in the Global South, become better equipped to control the timing and number of pregnancies they want to have, the allure of greater affluence and autonomy will accelerate the trend of falling fertility rates. General improvements in the socioeconomic conditions of developing countries will increase the number of women in education and employment, with many more choosing to prioritise career and leisure over the time-consuming and expensive brunt of procreation. Although projections cannot factor in upsets that might significantly change the outlook – pandemics, wars, pronatalist policy reforms, new social norms, and changing family preferences – the overall trend towards fewer births and, eventually, negative growth looks relatively certain.

South Korea provides an example of what might eventually be in store for much of the world as the trend of falling fertility rates continues. Here, the fertility rate has been well below the replacement level of 2.1 since 1983. In 2018, the country became the first in the world to see a fertility rate below 1, a record which was once again broken in 2022, when the average number of children born to each woman sunk to a new low of 0.81. To slow the rapid decline, the South Korean government has enacted financial incentives for expecting couples to alleviate the high cost of raising children in the country. They have also enacted subsidies for child- and eldercare benefits, as well as having created new foreign guest worker programmes in order to turn the trend.

It should be noted that South Korea's low fertility rate is an exceptional case which is a result of the country's unique circumstances, not least the high cost of housing, education, and general economic anxiety among the country's younger population. Accordingly, expectations that the entire world will soon follow suit should be taken with a grain of salt. Although Elon Musk recently drew headlines and sparked worry with his warnings of a global population collapse beginning as early as 2040, few demographers put any stock in such a notion. Indeed, one UN demogra-

"As fertility rates continue to decline, we will also likely see increased efforts at developing methods to bypass the limitations of human biology."

pher commented in response to Musk's recent attention-grabbing proclamation that "he's better off making cars than at predicting the trajectory of the population." With that said, few see population decline as having a positive impact on society due to the serious social and economic pressure it can cause. What's in store for us in a future where population growth, a stable trend through most of human history, reverses its course?

Even before reaching a state of decline, the consequences of the demographic changes will be felt. Aging populations and worker shortages could cause serious societal disruptions, including in the form of a growing pressure on healthcare and other social security services. With the total amount of retirement incomes rising every year, public pension plans are also at risk in the countries where such schemes exist. As populations age and eventually shrink, less consumption of goods and services will almost certainly cause a slowdown in economic activity – although there may be other benefits, including environmental ones. A smaller tax base would also bring with it its own set of challenges in the form of lower budgets for public expenditure. Although one could conceive of benefits as well – fewer workers would command higher wages and fewer property buyers could lead to more affordable housing – overall, the economic challenges are likely to be considerable.

Naturally, the size and scope of these challenges will vary greatly between countries and regions. Nations with low fertility combined with net zero or negative migration – much of Eastern Europe is included in this cohort – may face labour shortage issues sooner than countries with fertility rates below the replacement threshold but where net positive migration makes up for the loss to some degree. Spain, France, Great Britain, and Germany fall under this category. Over the course of the next century, however, current levels of migration will not be enough to prevent population decline in these countries either. Major countries that are expected to see population growth toward 2100 – this group includes the United States, India, and Nigeria – may see benefits from a larger workforce and potential consumer base if they can provide adequate education, employment opportunities, and infrastructure to support that population.

Japan may offer some clues for what's to come in countries with faltering fertility rates and low rates of migration. With 28.7% of the population now aged 65 and older, the country has the highest

share of elderly citizens in the world. On top of this, Japan's high life expectancy has meant that 80,000 Japanese citizens are now centenarians – another world record.

Among the challenges facing Japan, some of which will soon become familiar in many other parts of the world as well, are increased economic and budgetary constraints, a growing pressure on job markets, and rural depopulation. Partly through necessity, the country has positioned itself at the forefront of the development of robotics and other technologies aimed at alleviating the challenges of a shrinking workforce and a growing share of elderly citizens.

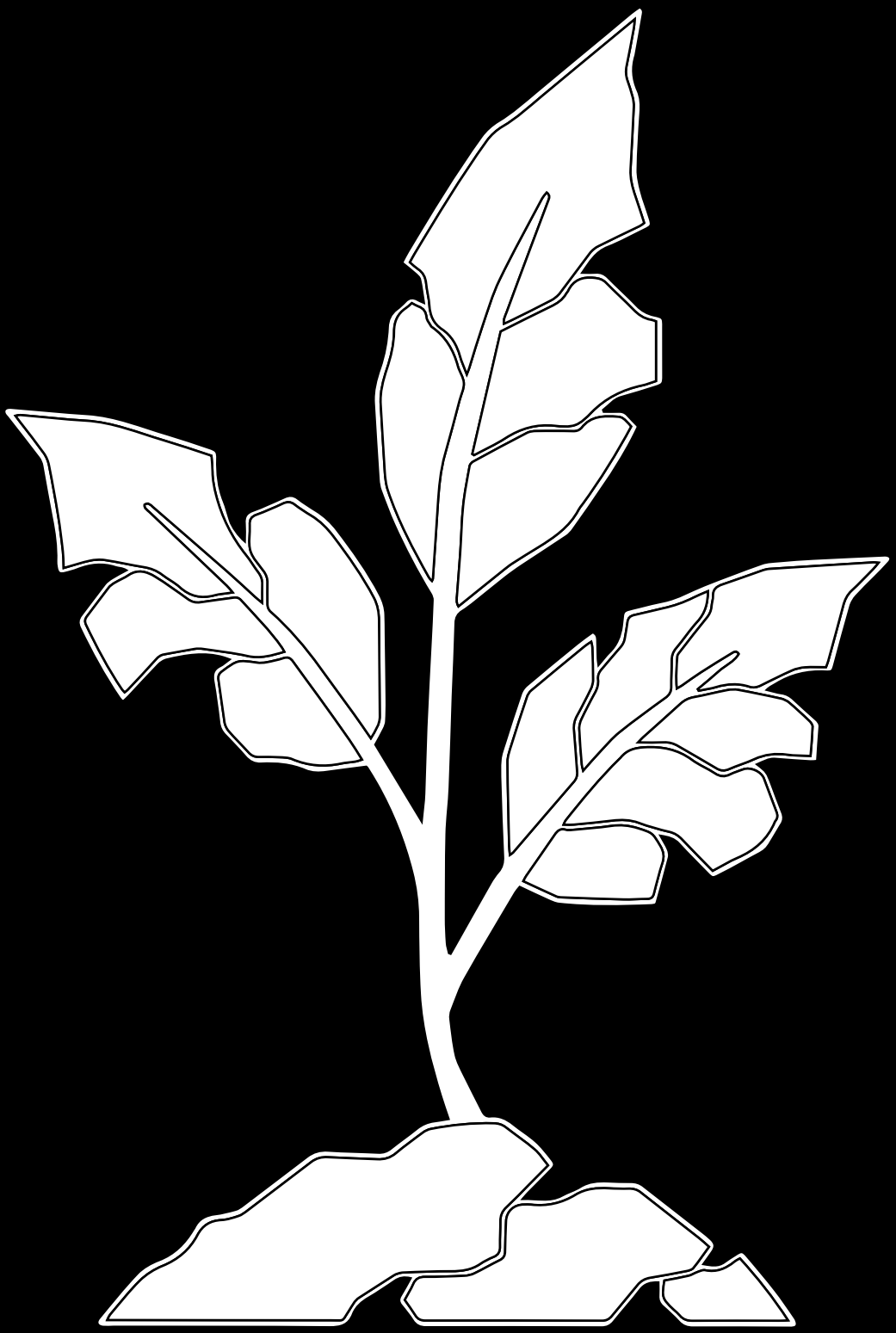
As fertility rates continue to decline, we will also likely see increased efforts at developing methods to bypass the limitations of human biology. This will almost certainly include increased funding for fertility research and treatment practices aimed at increasing the timespan in which women are able to carry on a pregnancy. Artificial wombs could also potentially help infertile couples conceive a child while completely removing the child-per-woman variable from the population equation. It is uncertain, however, if such developments will do much to impact the overall trend toward decline.

Some effects of a shrinking and aging population may be hard to quantify, but nonetheless important. There may, for instance, be social and cultural impacts related to community vitality and the loss of innovative 'spirit' (something which is commonly associated with youth). Additionally, as population decline accelerates, so might the loss of cultural traditions and heritage.

Finally, it is not unthinkable that the population shifts over the course of the 21st century will have profound impacts on a geopolitical level as well. Bricker and Ibbitson, the aforementioned authors of *An Empty Planet*, have speculated that we might see (or at least could hope to see) a 'geriatric peace' forming in a world where declining and aging populations means that the youth become a more precious resource not to be squandered on war; the few young will simply be needed elsewhere. Indeed, one of the consequences of Russia's invasion of Ukraine, which has led to high casualties on both sides as well as the migration of young men in the fighting age, is a deepening of the demographic crisis facing the two nations. Ukraine is especially affected, as its fertility rate sits at a low 1.22 (with Russia's sitting at 1.50).[3]

Regardless of the exact trajectory of growth and decline, the era we are entering is unprecedented in human history. The potential consequences are wide-ranging, the full scope of change is impossible to grasp, and there are presently more questions than answers. Yet although the overall demographic trends may be largely irreversible, how we prepare and react to them is not set in stone. Will we be able to adapt to this new reality, or will we face widespread social and economic upheaval? ■

3 World Bank: Fertility rate, total (births per woman) – Ukraine, Russian Federation, tinyurl.com/bd6kntzw.



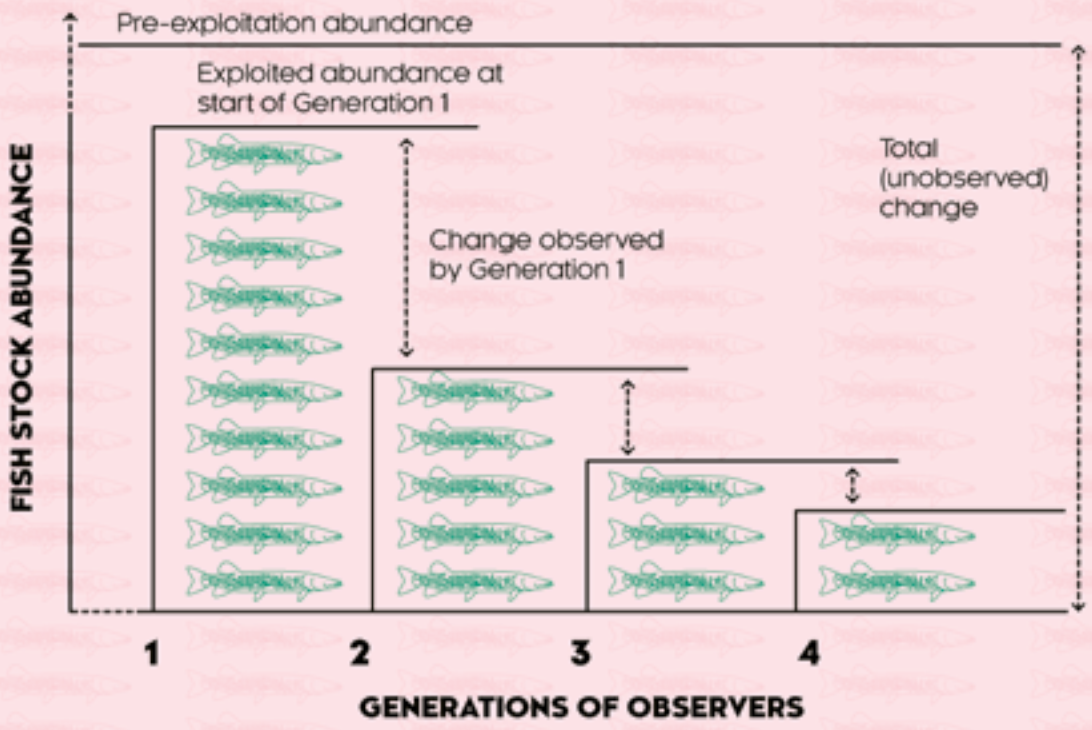
Shifting Baselines Syndrome

How our generational amnesia masks the true state of things

The world is always changing. But sometimes, shifts in what we consider 'normal' or 'natural' happen at a pace so slow that we don't notice them. Eventually, our standards are changed, or thresholds for what we consider acceptable lowered to such an extent that they would be unrecognisable, perhaps even shocking, to our predecessors if they were still around to experience it.

The phrase 'shifting baselines syndrome' was coined by biologist Daniel Pauly in 1995 to explain this phenomenon. It was originally used to refer to the difficulties in assessing baseline populations of fish (as in prior to human exploitation) compared to contemporary levels. Pauly remarked that the ecological baselines, often set within the lifetime of working scientists, obscured the long-term and often substantial total decline in wild populations of animals.

Each subsequent generation suffers from a lack of experience and memories of what used to be accepted as the natural state of things – and their standards are lowered when compared to their predecessors.



Although shifting baselines syndrome is most often used to understand biases relating to long-term ecological change, similar kinds of generational amnesia can be found all around us.

To take one example, our expected baseline for technology and the convenience it brings us has changed so much over the course of a few generations that it becomes almost impossible to relate to the world our grandparents inhabited. The same is true for our attitudes toward social change and norms.

Our finite lifespans and inability to inherit information, feelings, and experiences from our predecessors make shifting baselines syndrome a chronic human condition. The risks associated with this constant drift of standards is that it can lead to complacency and apathy towards environmental or societal issues. It also makes it difficult to build a consensus around what a state of 'normalcy' should look like, or which targets to aim for, as different generations may have varying perceptions of what constitutes a healthy and acceptable environment. Ecologists have suggested that this could be one of the fundamental reasons that our society tolerates continued environmental degradation and does not always support or understand the need for conservation and restoration efforts.

The solution then, although it is easier said than done, is to break out of the prison of our subjective and limited human experience and foster a higher degree of cross-generational historical literacy. Yet interestingly, researchers also suggest increasing our contact with the rest of the living world as a way to combat our blindness to long-term change. When it comes to human-nature interaction, ecologists point to what they call the 'extinction of experience' – our increasing alienation from the ecosystems we depend on – as a contributor to our lack of understanding of how our world is changing, which in turn leads to general apathy toward conservation and restoration efforts. Reconnecting with the wild can become a way out of this cycle, and a necessary step to preserving it for future generations.

Source: Emily S. Klein & Ruth H. Thurstan: "Acknowledging Long-Term Ecological Change: The Problem of Shifting Baselines", Perspectives on Oceans Past (2016), shorturl.at/IQ137.

"The world spends more money on buying ice cream than we do on financing futures thinking and foresight"

TEXT
NICKLAS LARSEN
PHOTO
MELISSA JANSEN VANRENSBURG & MATT HORWOOD

The world's first Future Generations Commissioner, Sophie Howe, recently ended her 7-year term. In this interview, the former Welsh Commissioner reflects on the rise of her role, her achievements, and how much work still needs to be done to bring long-term thinking into mainstream politics.

In 2015, the Welsh government took measures against the shifting priorities, hollow reporting, and systemic inertia which often come with short-term election cycles. With the passing of the Well-being of Future Generations Act, public bodies in Wales were required to begin considering the long-term impact of their decisions. Sophie Howe, whose political career started in 1999 when she became the youngest elected councillor in Wales, was appointed as the world's first Future Generations Commissioner. For the last seven years, she has taken on the role of watchdog on behalf of her constituents: the future citizens of Wales.

"In quite simple, yet mind-blowing ways, this role speaks on behalf of and represents the yet unborn," Howe explains. "In practice, acting on behalf of future generations involves reviewing the progress of all public bodies in Wales, from local authorities to national institutions, as well as the government itself, to assess if the requirements of the Well-being of Future Generations Act are reflected in their work."

The Act itself rests on seven well-being goals defined by the Commissioner: prosperity within our planetary boundaries, resilient ecosystems, equality, physical and mental well-being, community cohesion, vibrant culture and language, and taking global responsibility.

"The role of Commissioner includes providing support on the steps that should be taken by public institutions to be in alignment with the Act. If they aren't taking those steps, then it's the Commissioner's job to call them out publicly to make sure it happens," Howe says.

Serving the needs of people who cannot vote because they have not yet been born is all but straightforward. It requires making assumptions in the present as to what the wishes and needs of future citizens might be.

"Naturally, we cannot know what exactly their interests will be," she says. "So, instead of guessing, we work with the citizens alive today to get their perspectives on the future, what they find important, and what they think is relevant for future generations. This has resulted in the formulation of our seven farsighted well-being goals, which have statutory definitions attached to them. In this way, the seven goals act as a set of principles, by which Wales now judges the progress towards building the society it wants to live in now, and in the future," Howe says.

When asked to reflect on which political achievements have been made possible during her tenure as Commissioner, one thing stands out to Howe. When she became familiar with proposals to spend the entirety of the Welsh Government borrowing capacity on building a 30-mile stretch of highway to deal with congestion problems, she saw a need to intervene:

"I asked the government to explain how

SOPHIE HOWE

it was in line with the Future Generations Act – which they couldn't. The business community desperately emphasised all the modelling of the economic benefits that this would bring. I challenged this as well, as it's neither a solution fit for the 21st-century nor one that is in line with our well-being goals. I was not popular for a long time afterwards," she says.

"This was an overarching piece that initially wasn't welcomed and was widely considered a load of nonsense. But we then saw some of the budgets channelled toward bettering public transportation instead, and how it led to a moratorium of more than 50 infrastructure projects. We also increased investment in citizens' active travel and evidence now shows that the people of Wales are proud of it, to the extent that even the sceptics have been knocking on my door since to say that they appreciate governing toward a long-term vision."

The statutory power of the Commissioner means that the recommendations of the officeholder carry more weight than those of other kinds of pressure groups or think tanks. Welsh legislation requires that public institutions must cooperate with the Commissioner towards achieving its goals, which are collected every five years in the Future Generations Report. The report is published a year ahead of parliamentary elections and is designed to influence the policies of the political parties.

"In 2021, 64% of the Commissioner's recommendations were featured in the party manifestos and now 59%, are featured in the program of the Welsh Government," Howe remarks. Although she considers this a success in itself, there is of course always more work to do, she explains. If given the chance to continue her work, Howe says, her priorities would include pushing harder for more preventative healthcare and to update curricula to include futures thinking in schools.

Changing the narrative

Present bias is the human tendency to favour immediate payoffs over long-term benefits. It's an inclination that plagues us both on an individual level and, on a greater scale, in national politics. Here, a narrow focus on the goals achievable within the timeframes defined by election cycles can serve to reinforce and perpetuate problems of the past. It would be hard to disagree with the notion that policymakers should steer with the long-term in mind, but this is easier said than done. Howe highlights this as the most significant challenge related to the Commissioner's role:

"People's minds are drawn to the here-and-now rather than to what the long-term effects of our decisions are. I constantly have to pull people into a different mindset that also considers what all the work we are doing today means for the future," she says.

This task has only become more difficult in recent years, Howe explains, as a state of permanent crisis seems

to have become the new normal. She points to Covid-19, the war in Ukraine, heightened inequality, the rising cost of living, as well as issues relating to race, health, and poverty as having collectively contributed to making it more difficult to keep the long term in mind when making decisions today.

"I empathise with public institutions as it's difficult to find the needed breathing space and mental capacity to look ahead, let alone the actual skills and resources needed to shift from just responding to getting in front of a given crisis," she says.

"What I think is interesting about the Welsh approach is that it counters a lot of the dystopian narratives about the future by setting out aspirational long-term goals. Governments should continue to do their risk calculations, which remain hypothetical, as no one knows what will happen anyway. But perhaps it's easier to conceive the path ahead if it steers toward a vision of what kind of country we wish to leave behind," she says.

"In Wales, we now know where we're going. You wouldn't think this would be a special thing, but it's actually completely unique. No other country in the world has a long-term vision set out in its legislation the way Wales does. The risk of not having such a vision is that it can lead to ineffective political commitments that change from one government to the next – and that's the problem we are addressing here."

Letting the youth lead

As part of Wales' efforts to provide representation for future citizens, the country has established an elected Youth Parliament, from which the Children's Commissioner and the Commissioner for Future Generations take in inspiration, aspirations, and priorities.

"Wales has lowered the voting age to 16 as a step in the direction of securing youth a seat at the table," Howe explains. During her tenure as Commissioner, she initiated a Future Leaders Academy with members aged between 18 and 30 who go through intensive 'reverse mentorship' programmes designed to prepare them for future leadership roles.

"We pair these future leaders with 50 executives from our public institutions, including the head of the Welsh Government, the Chief Executive of our football association, leaders from our health institutions, and of our Environmental Agency. There's something powerful to this model," she says.

"These executives will likely never experience climate anxiety, they are not digital natives, and they are generally far removed from the lives of young people alive today, let alone those to come. The programme is designed to ensure that the impactful decisions they make are informed by the insights and perspectives of the youth."

Scaling anticipatory governance

Although Wales represents a first in

the successful implementation of anticipatory governance, things are beginning to change in other countries as well, albeit slowly.

"Outside of Wales, there aren't more than a handful of well-integrated anticipatory governance systems to point to," Howe explains. "But we can look to Finland, Canada, Gibraltar, Singapore, and perhaps the Emirates for examples of this type of work."

Others may be on their way, however. This includes the governments of Germany and New Zealand, which have both expressed interest in integrating futures thinking and foresight on a policy level. These are encouraging developments to Howe, although she believes it's doubtful that bigger countries will be quick to implement legislation as wide-ranging as that of Wales.

Signs of promising change are also seen at the UN level, Howe says, pointing to her work with António Guterres, the UN Secretary-General, on the UN Declaration on Future Generations, which she believes could have a potentially massive trickle-down effect on the 193 UN Member States.

There's still much work to be done to make governments in-tune with the needs of future generations, Howe says, while paraphrasing a quote from Australian philosopher Toby Ord:

"The world spends more money on buying ice cream than we do on financing futures thinking and foresight. I suppose it's a bit of a humorous analogy, but it's true. Most public sector organisations don't have any futures or foresight capacity. If they do, it's often insignificant. The most important thing to do now is to begin to cultivate the leadership as well as the technical and practical support necessary to make considerations for the future an integrated part of policy development."

Howe ends our talk on a philosophical note, arguing that the actions we take today should be weighed based on their impacts not only a few generations into the future, but 10s, 100s, or even 1000s.

"In the grand scheme of things, we are currently a tiny existence compared to those 6,75 trillion people expected to be born during the next 50.000 years. The actions we take or do not take today will impact every single one of them," she says.

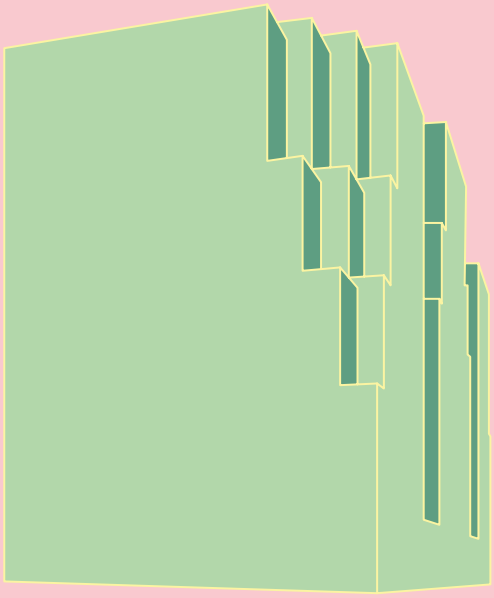
Even in this long-term perspective, governments of today have a duty to fulfil:

"I think you'd be hard-pressed to find governments or politicians who will publicly say that we don't have duties or obligations to the future. And so, my challenge would be, well, if that's the case, how are you going to demonstrate that? Would you be willing to have someone independent to check whether you're doing that? And that's the big test, isn't it?" ■

Sophie Howe ended her tenure as Future Generations Commissioner in early 2023.

Anticipatory Governance

How is futures studies and foresight used to improve policymaking?

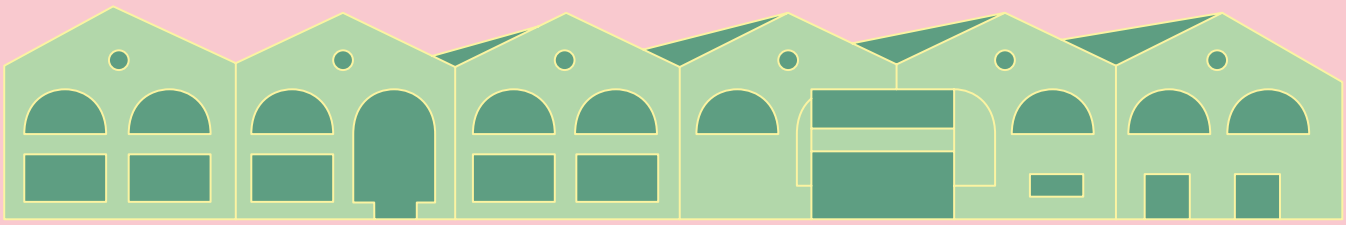


POLICY HORIZONS CANADA

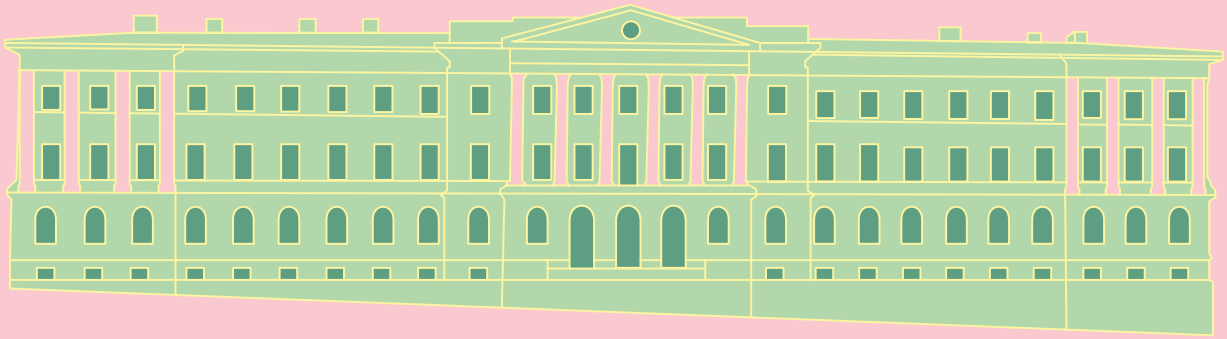
Policy Horizons is a Canadian federal organisation that conducts foresight to help the government develop policy and programmes related to economic futures, social futures, and governance futures. Their mandate includes building foresight literacy and capacity across the public service.

OFFICE OF THE FUTURE GENERATIONS COMMISSIONER WALES

The Welsh Future Generations Commission works towards achieving seven far-future goals for the country. The commission, which was established as part of The Well-being of Future Generations Act in 2015, advises the government and public bodies of Wales and assess how aligned their policies are with the goals of the commission, which have as their overall aim to improve well-being for the future generations of Wales.



Sources: Prime Minister's Office, Government Foresight Group, bit.ly/3ISYcWs. Government of Canada, Policy Horizons Canada, bit.ly/3ltSw3r. Centre for Strategic Futures, bit.ly/2Zf3OB9. Future Generations Commissioner for Wales, bit.ly/3IWDA6l.

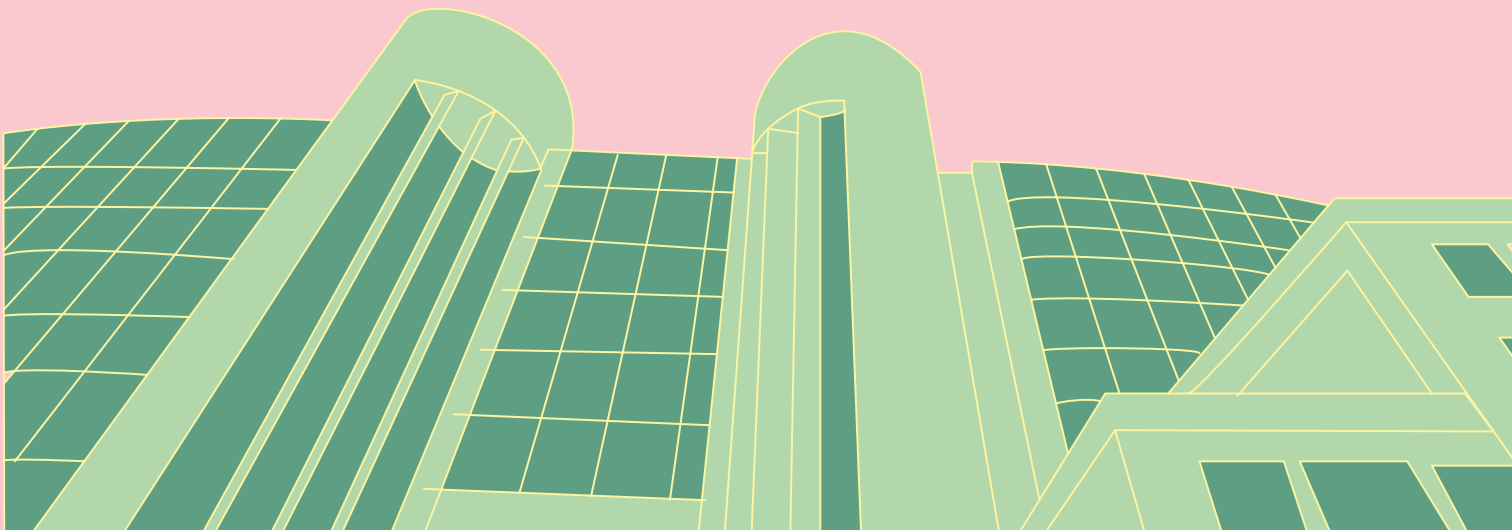


GOVERNMENT FORESIGHT GROUP FINLAND

Finland has gone further than most other countries in integrating foresight and futures studies into the political decision-making process. The Government Foresight Group serves as an advisory body to the Finnish government, and its role includes preparing the Report on the Future published during each election term. The reports aim to challenge held assumptions about the future while outlining different trends and potential trajectories of change. The group also promotes public awareness of foresight work at the national level.

CENTRE FOR STRATEGIC FUTURES SINGAPORE

Singapore's Centre for Strategic Studies has as its purpose to bolster the national government's foresight capabilities. This includes building capacities and mindsets, developing insights into future trends, discontinuities, and strategic surprises, and using these insights to support policy planning.



The Ethics of Ecological Sabotage

TEXT
MIKKEL KRISTENSEN
ILLUSTRATION
SOPHIA PRIETO

CAN THE ENDS JUSTIFY THE MEANS?

In 1972, the Club of Rome commissioned *The Limits to Growth*, a pioneering study into the possibility of exponential economic growth on a planet with finite resources. The conclusion of the report was unambiguous: any increased exploitation of natural resources would be greatly unsustainable and necessitate direct limits on global consumption.

In the decades since, a wealth of research into our impact on the planet has been published, from the Club of Rome's decennial follow-up studies to the regular IPCC reports on climate change produced since 1990.[1] Today, anthropogenic climate change is acknowledged with a near universal consensus. The potential impact and severity of rising sea levels, increased frequency and severity of extreme weather phenomena, collapse of ecosystems, drought, forest dieback, and their collective after-effects are self-evident: widespread suffering and a total transformation of life as we know it.

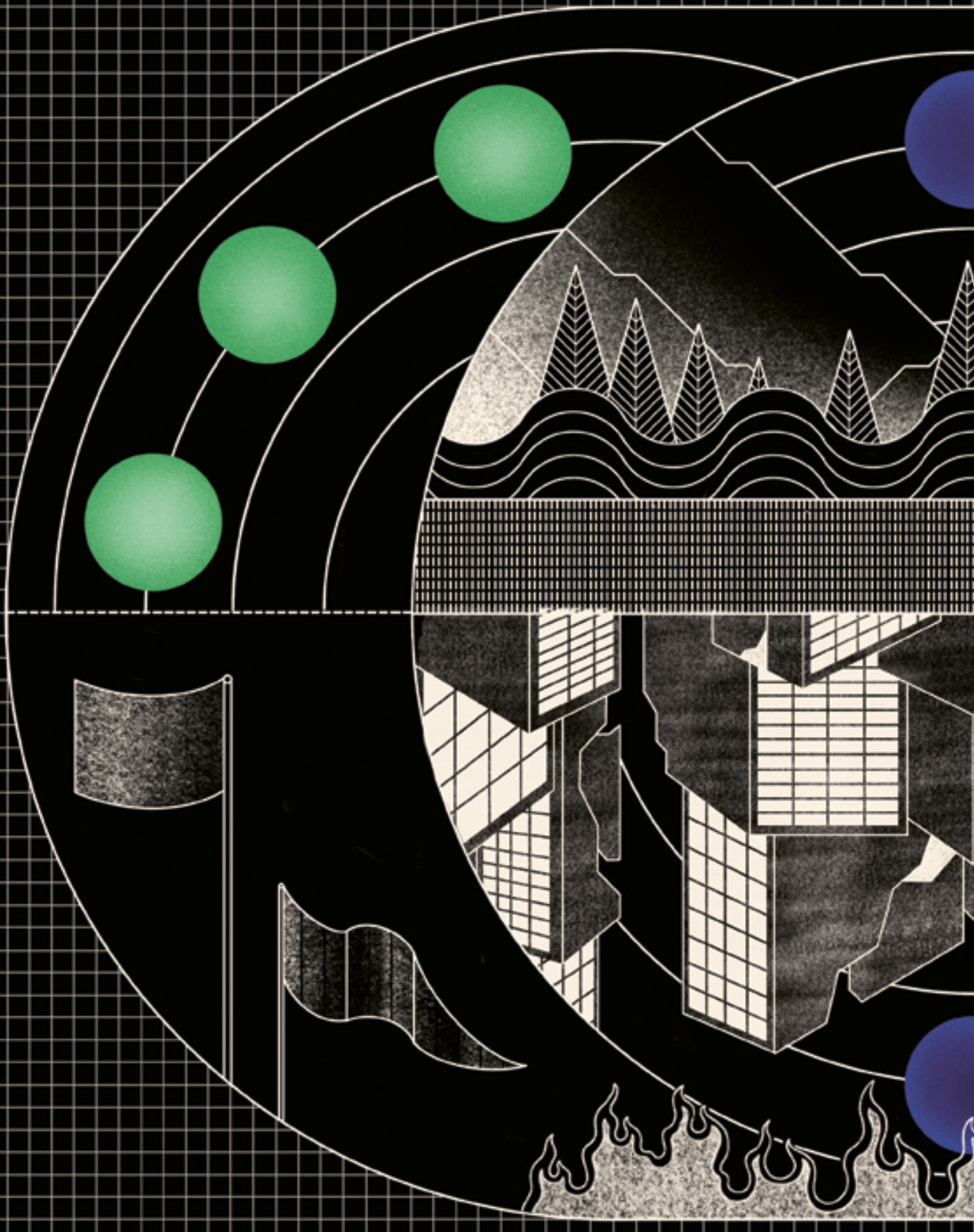
1 ipcc.ch/about/history.

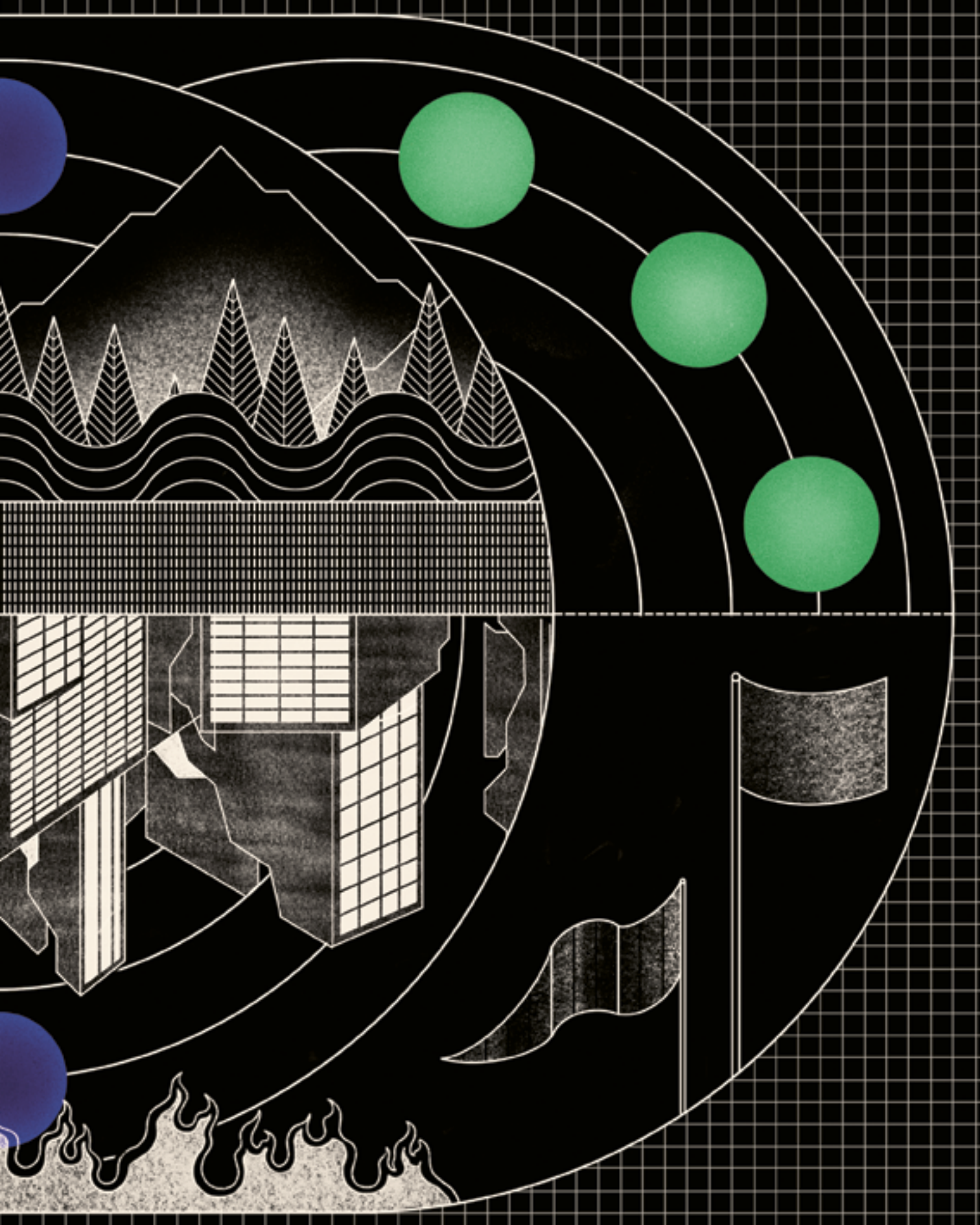
It is tempting to envision an alternative series of events, perhaps one in which Al Gore won the historically close 2000 US presidential election and took global leadership on climate action. In reality, however, we experienced – and continue to experience – widespread inaction concerning climate change mitigation in nearly all countries. Despite desperate attempts by climate activists and scientists to nudge decision makers towards action with peaceful tools, progress remains much slower than what is necessary to be in accordance with the targets of the 2015 Paris Agreement.

This relative passivity of political institutions has, in turn, led to an emergence of alternative methods of forcing policymakers to take necessary action. 'Ecotage' – sabotage carried out for ecological or environmental reasons – is one, ranging from the 'Just Stop Oil' activists throwing vegetable soup at Van Gogh paintings, to the sabotage of critical infrastructure, such as oil pipelines. The perpetrators of such acts believe that certain forms of strategic violence, particularly property damage, are justified to further the battle against climate change.

Given our current predicament, it seems likely that such violence will increase in the coming years.

Much of the intellectual foundation of ecotage is laid out in Andreas Malm's 2021 book *How to Blow up a Pipeline*, in which the Swedish professor argues, as the title might suggest, that ecotage is a logical and necessary form of climate activism when considering the lack of success strategic nonviolence has had. While Malm strongly condemns the use of violence intended to hurt or kill people, he claims that it is necessary and perhaps even an obligation for climate activists to create a so-called 'radical flank' within the climate movement engaging in





strategic ecotage. An example of this could be blowing up a pipeline during construction (preventing the risk of toxic spillage or loss of life incurred by an explosion after it was built). On a smaller scale, ecotage could take the form of flattening the tires of high-emission SUVs or other gas guzzlers.

Many believe it to be an obvious fact that strategic nonviolence is always the best way to achieve social change. In the best of all worlds, this would certainly be the case. Yet it may be an uncomfortable truth that history does not provide us with very compelling support for this notion.

In the 1980s, an American doctoral student by the name of Herbert H. Haines authored what has since become one of the most well-known studies of so-called 'radical flank effects'.[2] The paper examined the interactive processes between moderate and radical factions within social movements, where the actions of the radical flank were either beneficial or detrimental to the reputation and effectiveness of the moderate faction.

Haines found that militant Black activism in the US Civil Rights Movement led to funding increases for moderate mainstream civil rights groups and helped with the movement's overall legislative success.[3] Similarly, an analysis from the African National Congress argues that South African apartheid was defeated as a result of the combination of nonviolent and armed struggle.[4] Furthermore, anti-apartheid activist Dali Tambo maintains that the nonviolence of Gandhi in India was only successful because the British knew that the next step would be mass violence on an uncontrollable scale.

It should be noted that a holistic view of the academic literature available paints a more unclear picture of the effectiveness of radical flanks, with some studies seemingly finding no significant results regarding their impact – and some coefficients even pointing towards their *negative* effects.[5] Although examples like the above are convincing, the reality is that radical activism is so context-dependent and varies so greatly in degrees of militancy that no general assessment can be made about their overall effectiveness. Yet it's clear that they can be very impactful under certain conditions.

For many, hearing the words 'explosion' and 'oil pipeline' in the same sentence might create associations of terrorism. Yet it would be worthwhile to consider whether the greater terrorist is someone who excessively harms the climate and environment, or someone who through illicit action seeks to prevent this harm. According to most (non-moralised) definitions, the former is typically portrayed as a 'victim' and the latter as an 'eco-terrorist'. The ethical arguments on both sides are clear. On the one hand, one should not illegally destroy the property of

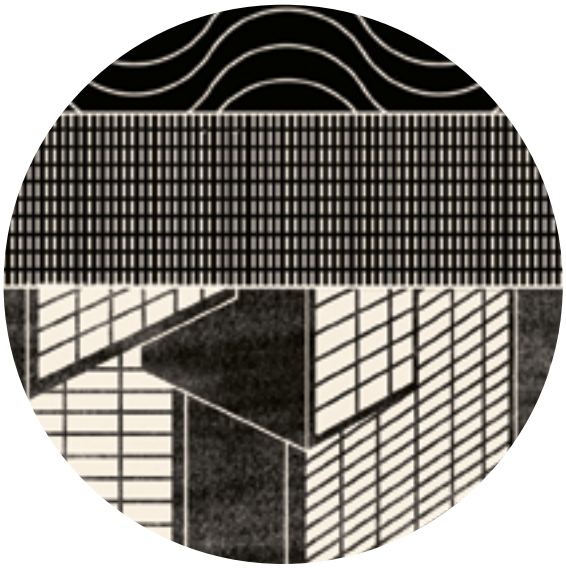
2 Haines, Herbert (2013). "Radical Flank Effects". The Wiley-Blackwell Encyclopedia of Social and Political Movements. Radical flank effects. In David Snow, Donatella della Porta, Bert Klandermans, & Doug McAdam (eds.), "The Wiley-Blackwell encyclopedia of social and political movements".

3 Irasilver.org/wp-content/uploads/2011/08/Reading-Movement-funding-Haines.pdf.

4 Braithwaite, John (2014). "Rethinking Radical Flank Theory: South Africa". RegNet Research Paper, 2014(23).

5 Chenoweth, Erica & Kurt Schock (2015). "Do Contemporaneous Armed Challenges Affect the Outcome of Mass Nonvio-lent Campaigns?". Mobilization: An International Quarterly, 2(4), 427-451.

other people. On the other hand, one should not stand idly by when severe damage is being done to ecosystems, the global climate, and in turn people all over the world, particularly those least advantaged. If we consider the harm done beyond the present moment – as is reasonable to do considering that atmospheric build-up of CO_2 and ecological damage can take decades, if not centuries, to mitigate – we must naturally also consider the impact on future unborn generations.



One way of approaching the dilemma of property destruction is through the lens of what is known as 'Just War Theory' – a common doctrine that tries to reconcile our duty not to transgress the property rights of individuals with the need to defend justice, innocent lives, and the prevailing rights of citizens. 'Property rights' in this context can be understood as either attacks to individuals themselves – such as in war – or towards the private property such individuals own. Just War Theory simultaneously requires great moral justification from eco-saboteurs, while also legitimising their cause.

According to some revisionist positions, Just War Theory consists of two parts: the justification for going to war (*jus ad bellum*), and the justification for conduct in war (*jus in bello*). To meet *jus ad bellum*, three conditions must be achieved: the cause must be *just*, the expected positive effects must be *proportional* to those that are negative, and all nonviolent options must have failed. In turn, conduct *in* war also requires proportionality and necessity of each specific action, and targets must be liable for harm to be justified. Obviously, this cannot apply to objects, so in this context, the question of liability concerns the owners of the property.

In the case of climate change, the most relevant cause for war would likely fall under 'humanitarian intervention', as the aim of strategic ecotage is humanitarian by nature – with not only the intention of alleviating extensive future human suffering, but also defending the interests of a repressed group. Here, one group profits from emitting large amounts of greenhouse gases, while other groups, typically the least privileged and those without a voice, are the ones facing the bulk of the negative consequences. This leads to the final question of whether property destruction is proportional and, indeed, a last resort. Regarding proportionality, it depends on the expected effect of such ecotage, which admittedly is difficult to determine. However, since the violence is solely directed at inanimate objects rather than persons, the negative consequences are drastically lower than what is usual when using Just War Theory.

Combining these reflections with the fact that neither pleas from the scientific community nor mass-movements such as Greta Thunberg's 'Fridays for Future' have had anywhere near the impact necessary for sufficient climate action, it appears plausible that the benefit of the doubt could perhaps justify strategic ecotage in such circumstances.

If the causes for strategic ecotage are accepted as proportional and necessary, then it follows that the actions of property damage, all other things being equal, would also be legitimate. However, this leaves the principle of discrimination remaining: whose property constitutes liable targets that can legitimately be destroyed? And, in turn, who determines this arbitrary degree of sufficient liability? These questions not only spring multiple moral philosophical dilemmas, but

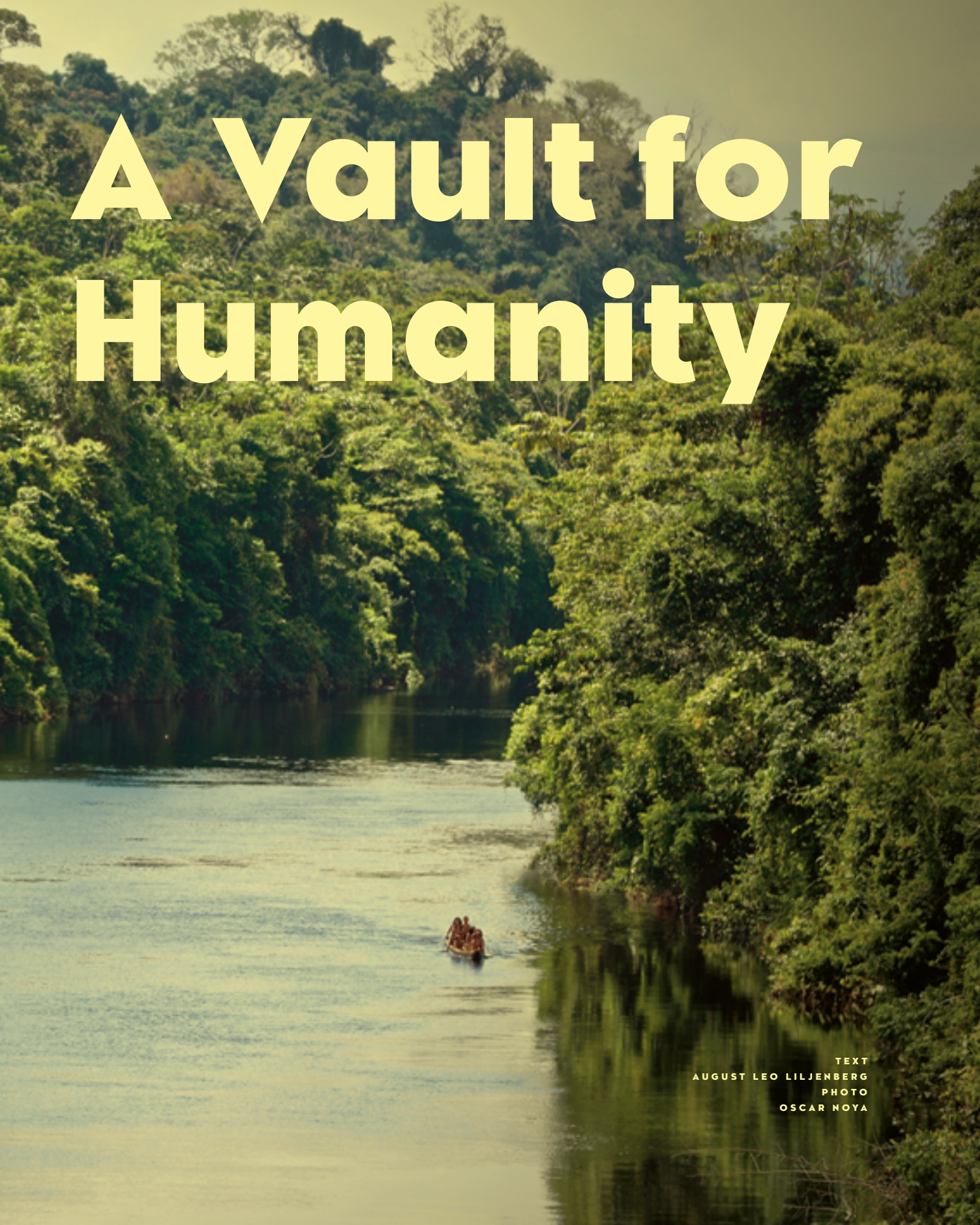
also raise a further question: can we really rule out that personal violence will be justified by the theory outlined above?

In the 2020 book *The Ministry for the Future* by science fiction author Kim Stanley Robinson, widespread violence ensues after a great heat wave kills 25 million people in India. Following the catastrophe, eco-terrorists (or freedom fighters, depending on the eyes watching) attack those deemed most responsible for causing climate catastrophes and climate inaction such as oil lobbyists and airplane passengers – not unlike the activism of American domestic terrorist Theodore J. Kaszynski (otherwise known as 'the Unabomber'). It is perhaps not far-fetched to expect an emergence of such incidents in real life as well.

Human beings are messy, however. Our actions tend not to be guided by abstract theories, but instead by the complex intuitions and irrationalities of the psyche. Even in the case of property-directed ecotage, determining arbitrary degrees of liability would not only need great moral justification, but also require a large part of the public to circumvent their belief in what is fair and just. These are questions that wrestle between utilitarian and duty-oriented (deontological) moral philosophies: either our moral guidance should follow from what produces the greatest expected utility, or it should be bound by a rule-based order prohibiting certain forms of behaviour – no matter how much welfare may be created as a result. As humans, we tend to be quite duty-oriented towards our fellow sapiens, and more utilitarian towards other species. This is, of course, a simplification, but the key takeaway still holds: personal violence is unlikely to be very prominent if strategic ecotage gains traction in public discourse. Practically, not only is it a huge mental barrier (for most) to harm other people, but it might also be difficult to assess liable targets (not to mention the risk of a lengthy jail time, which most people would go far to avoid).

Our threshold for what we consider acceptable means to an end tends to expand in times of extreme stress. Worsening climatic conditions, including increasingly destructive and deadly weather events, will likely play a greater role in forcing the issue of environmental activism than careful moral and ethical deliberations of exactly which actions are justifiable. Perhaps some 50 years from today, public attitudes will, as a result, have shifted to a more favourable view of ecotage. Or perhaps we will see a global division in attitudes, with populations in regions that are impacted the most but bear the least blame for past emissions becoming more prone to fostering and supporting radical action, while populations in wealthy, high-emission countries have the choice of taking the moral and ethical high road of condemning violence. What's certain is that there is no hiding from the future, and the path we are on will force us to reckon with these difficult questions one way or another. ■

A Vault for Humanity



TEXT
AUGUST LEO LILJENBERG
PHOTO
OSCAR NOYA

For the past decade, Gloria Dominguez-Bello and Manuel Fankhauser have toured the world, from the military bunkers of Switzerland to the rugged mountains of Patagonia, with like-minded microbiologists, policy-makers, and visionaries in search of the best spot to preserve the diversity of the human microbiome. Their story shows that safeguarding the future interests of humanity isn't just a philosophical thought experiment, but an arduous process that aims to preserve the building blocks of human biology itself.

Our own microbial flora is mostly a combination of bacteria, fungi, viruses, and many other microscopic lifeforms, located in the gut and all surfaces of the body. Scientists are increasingly finding evidence of a strong relationship between gut microbes and their hosts – helping protect us from infections, breaking down compounds indigestible to humans (such as many plants), communicating with the immune system, and even impacting our neurological function and behaviour. As such, an altered microbial diversity has been associated with a range of illnesses and their respective treatments, including immune-related diseases, Alzheimer's, and cancer.

However, the gut microbial diversity essential to our well-being is currently declining at an unprecedented rate. Lifestyle changes associated with urbanisation threaten many microbial hotspots around the world and as such, the Microbiota Vault initiative aims to construct an institution for the safe back-up storage and preservation of microbiota samples and collections.

Gloria is a Venezuelan American microbial ecologist and Professor of Microbiome and Health at Rutgers University, New Brunswick. She has pioneered research within the ways urbanisation affects microbial diversity and the differences between C-sections and natural births in determining future microbiota health. Manuel Fankhauser is a Swiss researcher and Chief Scientific Officer at the Seerave Foundation. His work includes investigating the nutrition-microbiome-immune-system axis and its relevance for cancer as a disease and therapeutic treatments.

FARSIGHT had the pleasure of speaking with Gloria and Manuel, both of whom are board members of the Microbiota Initiative and deeply involved with the initial launch phase of the project.

What drives your interest in preserving the microbial diversity of human beings?

GLORIA: Although I was always interested in the symbiosis between animals and their microbes, it wasn't until I relocated to my native Venezuela after finishing

my PhD in Nutrition and Microbiology in the UK that I started to take interest in the human microbiome. Using microbial sequencing technologies, I started comparing the microbial diversity of people untouched by urbanisation, such as remote communities in the Amazon, with those in semi-urban and urban areas, finding significant associations between urbanisation and a loss of microbial diversity.

I was deeply concerned. Not only was urbanisation degrading our environmental ecosystems, but our own microbial ones too, which are crucial to our health.

It was around that time that I learned of the Svalbard Seed Vault [a facility in Norway that stores duplicates of seed samples from across the world, ed.] and started thinking that perhaps someone should start doing the same thing but for microbes. In large-scale conservation efforts today, you rarely see microbes in the picture. The United Nations' conservation efforts are enormous – yet microbes are completely ignored, despite them being the fundamental building blocks of biology on Earth.

MANUEL: Although my field of specialisation is actually tumour immunology, my interest was first sparked with the concept of faecal microbiota transplantation – transferring poop – from one human to another in sometimes life-saving treatments. So, as a junior researcher with some extra time on my hands, I and a few colleagues created a start-up aiming to standardise faecal microbiota transplantation.

Thereafter, I started to become interested by the mechanistic connection between what we eat, what our microbes make out of that food, and how that influences our health. There are more than 3 million genes encoded in a healthy gut microbiome that work alongside the 23,000 that are your own, human genes. To give an example, out of your own human genes, you only have 17 that manage carbohydrate degradation – the ones breaking down complex sugars. Now, let's say you eat a Jerusalem artichoke. Imagine the scale of difference in one's digestive process with those 15,000 extra carbohydrate-degrading genes that come from a diverse gut flora, in addition to your 17 relevant human genes. Imagine that they're not there. What becomes of that Jerusalem artichoke?

Could you elaborate on the relationship between urbanisation and human microbial diversity?

GLORIA: Sure. With urbanisation we change our lifestyles. I have primarily conducted my research in developing countries, where rural and/or indigenous populations – those with the greatest microbial diversity – move to semi-urban

or highly urbanised areas and radically change their way of living in order to adapt to their new environment.

There are many different factors here, but I will list some of the most important ones. Urbanisation means we enclose ourselves from the external natural environment using many synthetic building materials, many of which are toxic. We change our diets and start eating highly processed foods low in fibres, which are necessary for the gut microbiome to flourish. And we become increasingly exposed to processed foods, toxins, antimicrobials, and antibiotics.

What we have found is that, in developing countries, such exposure to antibiotics can be quite abusive, where people tend to take antibiotics for any kind of illness despite these medicines being the strongest known antimicrobial agents.

Finally, babies start being born by C-section, which, despite being a life-saving procedure, nonetheless means being born sterile into the air of an operating room. And in many developing countries, this is becoming the default form of birth delivery, as C-Sections are routinely scheduled prior to birth to avoid going through labour. People don't realise that there are significant consequences to being born sterile and having one's pioneer microbes being skin-related microbes from the air of an operating room, rather than vaginal ones, which is the way all mammals are born.

According to the United Nations' population projections, all future population growth will be urban. We are clearly not going back to living in jungles and savannahs where our microbial diversity would be significantly higher. And we are certainly not going to stop using medicine or antibiotics or C-sections because they are oftentimes life-saving treatments.

What we have to understand, however, is that these medical interventions can have a significant collateral cost. If we need these microbes to thrive – which we do – we need to learn how to restore this microbial diversity when it is pertrubed.

How does the Microbiota Vault help this preservation process?

MANUEL: It's a very delicate balance between preservation and making sure that the Vault doesn't become a sort of 'black box'. This is the case with the Svalbard Seed Vault, where only governments can deposit samples, which means they are the only ones that know what's inside the facility. The Microbiota Vault, on the other hand, has a fiduciary role: the samples are stored as a backup for local collections and maintain the rights of the depositor. Finally, we also want to sequen-

ce and make publicly available the metagenomic data of each deposit to strengthen the transparency of microbial research. As a researcher, I might see, for example, a Tanzanian sample that catches my interest, and I will therefore know exactly where to go to research further.

It should also be mentioned that we are currently focusing on human gut microbiota – microbiomes coming from fermented foods. It has become increasingly clear, however, that there are also environmental microbes that may be just as important, if not more important, to human and planetary survival, such as soil, water, air, and even animal microbiomes.

So, the potential scope of the project is huge. But, of course, you have to initially focus it under bootstrapped conditions.

GLORIA: Exactly. And part of the initiative is also about promoting the establishment and development of these local collections through education, networking, and contacting scientists in areas that are hotspots of microbial diversity.

Have any ethical considerations been taken to address this inequality between the economic wealth of, primarily the Global North, and the microbial diversity hotspots in the Global South?

GLORIA: Part of our mission is to connect the two and make the countries with rural, pastoral peoples aware of a wealth they have that they are rapidly losing. And addressing the ethics of this has been a key area of concern for us. There are many laws, for example, trying to address issues of data privacy and inequality. For us, however, the most important terrain is ethical, rather than legal. By setting the standards ourselves, we can evaluate how ethically a collection has been built *in addition* to having all the required permits of a site.

Furthermore, when we publish the metagenomic data of a local collection, we plan to have a statement that says any use of this data must acknowledge its origins. The transparency at the core of the initiative will ensure it being ethically run. It would be known if, for example, a company such as Danone has been using a certain piece of metagenomic data to produce a product that is marketable.

MANUEL: These are huge topics which are being discussed on an international level. There is a massive debate, for example, on how digital sequence information should be handled: how do we ensure that someone doesn't pick a small genetic sequence and creates a new organism or some kind of synthetic being? I think the vision behind the Vault will be part of such crucial negotiations in the future, although we won't necessarily be the ones *setting* standards.

GLORIA: Our hope is that the Initiative will not only preserve microbes for future generations, but also play a role in engaging developing countries with research communities by training people to mine globally available data. As long as they have access to a computer and a good internet connection, individuals in the developing world with existing local collections can convert that genomic data to information that responds research questions, and then publish it.

So, where will the Microbiota Vault be located?

GLORIA: We want a site that is protected from war, in a politically stable country, and shielded from natural disasters. This is surprisingly hard to find. The other thought we have had is to create resilience by having more than one site. There are not many options, and all of them have advantages and disadvantages. One prime candidate, however, has emerged: the bunkers of the Alps in Switzerland. We have also considered placing it in Svalbard (Norway), Greenland (Denmark), Iceland, and Patagonia (Chile).

MANUEL: What draws us to the bunkers in Switzerland is that they're remote, while also being a short driving distance from Zurich airport, which makes them easily accessible. Some of the samples will probably be stored in liquid nitrogen tanks. Some may be stored in -80C freezers which require electricity. So of course, having access to electricity and liquid nitrogen is another consideration.

What kind of practical measures need to be taken now for the Initiative to get up and running?

MANUEL: Collecting stool samples and putting them in a freezer sounds easy, right? But setting up the right governing structure is difficult, especially on the legal front, when you have so many different entities interacting with one another.

Getting our hands on these local working collection samples, validating them, optimising storage protocols and our digital platform for their transparency, as well as figuring out which sequencing method can best be scaled are among our top priorities for the launch phase. And that's not mentioning the legal complexities of such an endeavour.

GLORIA: I think the first challenge is finding a site and depositing samples in a real, physical vault. We are not there yet and unfortunately, things like the war in Ukraine are delaying our efforts. And this is unfortunate, because it's very, very urgent.

MANUEL: Just getting people to understand the concept, the idea, and the time-

sensitivity of this crisis is difficult enough. And then creating all the different legal frameworks is a lengthy process. Something like the Svalbard Seed Vault took thirty years to bring from an idea to a physical space.

GLORIA: We have a dream that the countries holding microbial diversity will request a mandate from the UN – like they do for conservation efforts – but for the microbial world. For the crisis to be averted, we really need multiple governments to think of their microbial diversity as a gift to the world, just as was experienced with the Seed Vault.

We need to use science now after causing such a great mess on the planet. To restore, learn, and respect nature; preserving this unique and essential diversity before it disappears. ■

"We have a dream that the countries holding microbial diversity will request a mandate from the UN – like they do for conservation efforts – but for the microbial world."

PROFILE OF A FUTURIST

Lasse Jonasson

"I DO THINK THAT HAVING CHILDREN AIDS OUR UNDERSTANDING, AND CARE, FOR THOSE THAT ARE YET TO EXIST"

TEXT
AUGUST LEO LILJENBERG
PHOTO
NATHALIE WALKER

It's been a long and largely unplanned journey to where I am today," says Lasse Jonasson, Director and Head of Advisory at the Copenhagen Institute for Futures Studies. Most paths to becoming a futurist are, admittedly, different from your traditional corporate ladder-climber. But it's the fewest of which that happen to start on the seat of a racing bike.

"The first thing I threw myself into was my first job as a professional cyclist. And although I was very good at it – even Danish champion for a short period of time – I remember being told by a friend that my brother, who was also a cyclist, had a higher chance of being a professional than I did. I remember being provoked by his comment but eventually, he also turned out to be right. And when my friend told me what his reason was for saying that to me, it was because I simply thought about things too much. To be a professional cyclist, you need to be able to shut off that part of your brain."

This desire to live in contemplation has since guided Lasse's career path. After a quick stint at a Big Four accounting firm, he spent the next ten years of his life working on strategy and risk with various financial organisations. Working with risk means dealing with uncertainty, and it would serve as his entrance into the world of futures studies. After collaborating with the Institute on a scenario planning process with his former workplace, he quickly grew fond of the nerdy, abstract, yet tactile way of thinking that the Institute brought to the organisation. It didn't take long for him to join the Institute, where he has worked for almost ten years.

"I often say that I work with the broadest niche out there since the future consists of everything," Lasse tells me. He emphasises how the work he – and the Institute – does with organisations is one that revolves around how we deal with the fundamental uncertainties that structure the future itself. "I believe that the future is not defined yet. Thus, it's never just about doing a sufficient amount of analysis to determine where we are headed. And I find that quite comforting, because it means what we do today will actually matter tomorrow. That we have agency." As part of the Institute's newly obtained role as UNESCO chair, he has also been spearheading the implementation of 'Anticipatory Leadership' into organisations, which can be thought of as "combining elements of strategic foresight with leadership thinking".

"In each organisation, you need a diverse array of thinkers. Most organisations have people who think about financial implications, who coordinate operations, or who think about sales. But you also need people who think about the future – about the second or third horizons laying ahead." Lasse chuckles briefly, aware that I know what he is going to say next. "They're actually the new CFOs –

Chief Foresight Officers. When you really get down to the core of what we do at the Institute, it's working towards integrating a future perspective into organisations."

We eventually turn our discussion towards what role futurists should have in advocating on the behalf of the young and the unborn. I ask Lasse whether his own fatherhood has impacted how we thinks about this question, and how it has affected his work in general:

"I do think that having children aids our understanding, and care, for those that are yet to exist, and forces us to think beyond our own limited lifespans," he says. "Simply on an emotional level, the time horizon I care about has drastically expanded after having children, which has provoked a whole new set of reflections on life, meaning, and existence."

In this context, our psychological intuitions help strengthen the intergenerational chain necessary for humanity's future wellbeing. But this is the exception, rather than the rule, when considering the interaction between our cognitive biases and having a mindset adept at integrating truly long-term interests into one's decision making. Many issues facing the future of humanity require present sacrifices on the behalf of future generations who we will never come into contact ourselves – decisions made in complete epistemic poverty. And this is something that Lasse recognises occurring with himself, even as a futurist:

"Now, I'm going to be honest. I think about my children's future. I don't spend a lot of time thinking about the future of my grandchildren. Even that is simply too distant for me to relate to. And I'm a futurist. There is a discounting factor in play all the time as humans. The longer you peek into the future, the less you tend to value it."

The desire to bring new life into existence is a necessary condition for humanity's future. Yet, Lasse mentions that he has decided together with his wife, like many other couples, not to have another child. In some ways, this illustrates the difficulty in taking decisions that affect individuals who do not exist when limited to our prehistorically wired brains. As Lasse tells me, their decision to not have more children is in a sense, absurd: "I know, in fact I am certain, that if I were to have that child, I would love it beyond anything on Earth. Yet, I choose not to have one. In a sense it's completely irrational."

It's likely that cultivating mindsets that are intergenerational will have to involve a symbiosis between our psychological intuitions and the abstractions of taking into account those unborn beings who we seemingly have no vested interest in

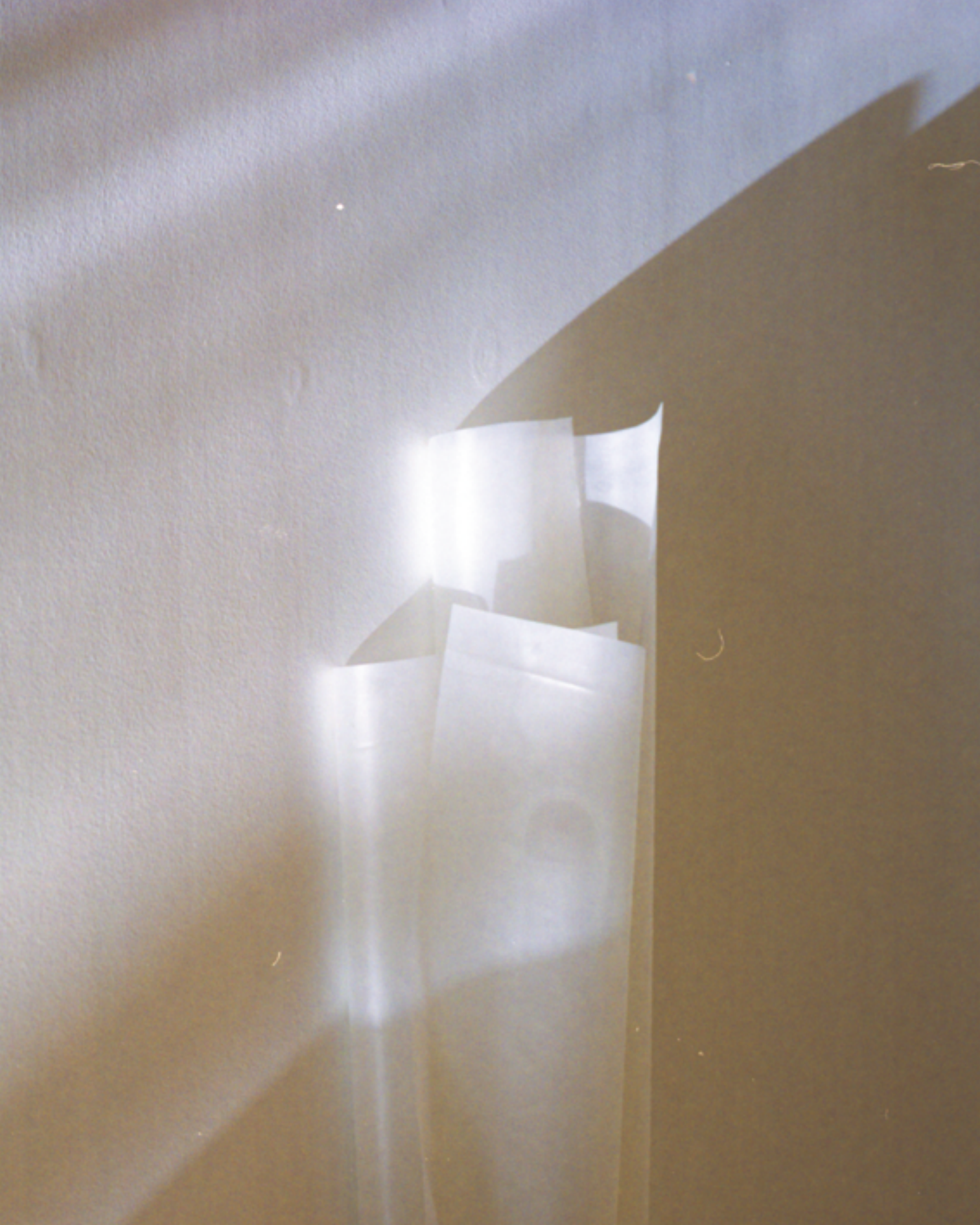
caring for. As someone who has worked with strategy and risk for almost two decades, the moral implications of weighing the interests of all the people who will eventually exist, compared to those who are alive today, raise intricate problems for the future:

"In my mind, there isn't a straight-forward solution to how we navigate the terrain of safeguarding humanity on the level of the individual. What we know is that eventually, the world will end. All humans will go extinct at some point in time – whether by being swallowed by the Sun's energy, by malevolent artificial intelligence, or something else. We will all die. It's just a question of how and when. And in this sense, the existential risks to humanity are similar on both the micro and the macro level. Humans are particularly bad at understanding very small yet significant and detrimental risks. We aren't designed to act based on very low probabilities."

After teetering in abstraction, we circle our discussion back to Lasse's work at the Institute today. "The nature of being a futurist," he tells me, is not necessarily "that you become better at knowing what will happen in the future". And while the interests of future generations certainly demand normative responses, Lasse is also keen to emphasise how the Institute's work with organisational strategy and scenario planning strives to be explorative and as neutral as possible. "What we try to do is immerse ourselves in these different scenarios. And thereafter, once we have catalysed a strategy process within an organisation towards a preferred future, the relevant decision-makers can set a normative standard that combines vision, working to make a positive difference in the future, and – in the cases of private companies – also making a profit."

On a personal level, what keeps Lasse interested in working a job that's never anchored in the tangibility of the present is his sense of curiosity about the world, alongside a tendency to see opportunities at every corner. "I enjoy surrounding myself with insights that I wouldn't have discovered on my own. What drives me the most are those meetings and sessions where you can feel the boundaries of your discussion just continuously expanding. And when you get down to it, that's essentially what my job is today." ■

"There is a discounting factor in play all the time as humans. The longer you peek into the future, the less you tend to value it."



USING THE FUTURE:

Teach the Future

Through our newly launched initiative Teach the Future Denmark, the Copenhagen Institute for Futures Studies aims to democratise the future and strengthen the youth's futures literacy and sense of agency in a rapidly changing world.

PHOTO RASMUS TRANBERG

Why

The youth of the world are shouting in unison. Studies show that 75% of young people look towards the future with fear and anxiety.[1] Lacking a political voice, many feel let down or betrayed by government responses to the global crises of our era. Their anxiety is rational and understandable. Yet fear can easily turn into apathy if the youth are not adequately equipped with a strong understanding of their own agency and ability to create change in the world.

The Copenhagen Institute for Futures Studies has established the Danish hub for 'Teach the Future' with the ambition of strengthening Danish children and youth's ability to explore, understand, and act on the future. The aim of the initiative is to train the ability for young people to think more freely about the future and challenge assumptions, biases, and static thinking through play, co-operation, and speculation. Teach the Future aims to stimulate imagination, encourage multidisciplinary thinking, and enhance creativity through training futures literacy, which can help us imagine new stories about the future and create alternative pathways of action.

The Danish Teach the Future hub is part of a global, non-profit initiative whose purpose is to equip children and young people to critically and constructively engage in an increasingly unpredictable future. Having taken on the task of establishing the Danish hub, the Institute's ambition is to put the future on the school curriculum in Denmark so that we can provide our youth with essential futures skills. Teach the Future is structured as an open and inclusive network with a focus on the development and exchange of knowledge and materials, which are tested, improved, and disseminated throughout the network's hubs which span 20 countries.

1 University of Bath: "Government inaction on climate change linked to psychological distress in young people - new study" (2022), tinyurl.com/4htce9f3.

How

Teach the Future Denmark is headed by the Copenhagen Institute for Futures Studies, a UNESCO Chair in Anticipatory Leadership & Futures Capabilities, in collaboration with VIA University College as a development partner and research unit. The partnership is based on test courses in VIA's vocational education, social education, interdisciplinary courses, and teacher education. The project will initially consist of a development phase, a combined test, research, and dissemination phase, which will finally be followed by an integration and scaling phase.

The long-term goal of Teach the Future Denmark is the cementing of futures literacy in Danish education. Futures literacy, which UNESCO defines as an essential competence for the 21st century, helps us to use the future more creatively and critically. Through futures literacy, we aim to equip young people to identify alternative outcomes, navigate uncertainty and complexity, and think, articulate, and build prototypes of future scenarios on their own terms. Our theory of change is based on the future as a subject, method, and competence used to counter a faltering imagination and a growing fear of tomorrow.

We are currently searching for collaborators to expand our network – be they schools, philanthropic organisations, or commercial partners who see a value in strengthening the youth's ability to critically reflect on the future and achieve a greater sense of agency through futures literacy.

If you are interested in learning more, please reach out to us:

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Why Generational Inequality Matters

TEXT
SEAN PILLOT DE CHENECEY
PHOTO
NATE DAVIS, B, JON HARRISON & RAPHAEL BRASILEIRO

Nouriel Roubini recently highlighted key trends imperilling our future in his excellent, albeit somewhat depressing book, *Megathreats*. Some of these trends are economic in nature, Roubini writes, including the dual spectre of inflation and recession and the mother-of-all debt crises emerging as a result of private and public debt ratios hitting historic highs. Other threats are rooted in demographics but will have economic and societal consequences as well, he explains, like an aging population that risks crashing our pension and healthcare systems.

Roubini also outlines broader geopolitical megathreats, including the backlash against liberal democracy and the rise of radical political parties. Here, he identifies the sharp rise of income and wealth inequality as a root cause.

Underneath the overt issues highlighted by Roubini is a relatively covert one that has until recently remained partially hidden. That issue has to do with growing tension between generations stemming from the fact that the living standards of young people in, for instance, many European countries is lower – and expected to stay lower for the foreseeable future – than those of their parents. It's a case of a gerontocracy having loaded the odds time and time again in favour of themselves rather than the young.

Yet it's not 'all' older people that are to blame, but the luckiest generation of all, the baby boomers. Commonly defined as people born between 1946 and 1964, this generation has been the beneficiary of a growing economy with plenty of safe and well-paying jobs, a soaring rise in the stock market, and an exponential growth in the value of their homes. Across society, the boomers have largely benefitted from power structures and economic forces acting on their behalf.

Their good fortune is an unusual twist of fate, as being a 'lucky generation' has historically entailed being a small cohort, whilst being part of a big one was generally bad for your economic success, given the competition for education, resources and jobs. But globalisation has changed the calculation entirely, notes Professor Bobby Duffy, Director of The Policy Institute at King's College London, in his book *Generations*. In it, Duffy highlights how analysis across Europe, North America, and parts of Asia shows that in most developed countries, the young are much more likely than others to have experienced a relative drop in income when compared to their parents.

Meanwhile, the annual Global Wealth Report from Credit Suisse describes how the wealth of baby boomers has been boosted by a range of factors including large windfalls due to property, pension, and share price increases. In comparison, the savings potential of younger generations, especially in richer countries, was impacted negatively by the Great Recession and subsequent higher levels of

unemployment and lower wage growth. Additionally, stagnating incomes, high house prices, and government action in many countries have supported existing homeowners through interest rate cuts and pumping money into the system. The IMF are now forecasting recessionary impacts in at least a third of the world's economies in 2023, as the three biggest ones, the US, EU and China, all slow down simultaneously.

The framing of societal challenges as being intergenerational isn't new of course, indeed far from it. The 'father of generational analysis' Karl Manheim outlined in his famous treatise *The Problem of Generations* a belief that generations and the tension between them provide us with a framework for understanding society and social change. That approach links to the 'Good Ancestor' ethos put forward by philosopher Roman Krznaric who believes that we need to see ourselves as part of a societal chain of generations, with inherent obligations and considerations.

But a point frequently made regarding millennials and members of Gen Z is that a moral system of intergenerational fairness appears in its current state to be broken. One explanation as to how and why that has happened was given by Joseph Steinberg in his book *The Theft of a Decade*, where he explains how the social contract, in this generational context, came to an end with the crash of 2008. The reaction to it was that politicians and policymakers in many countries made deliberate decisions that favoured the interests of the older generation over their heirs. "For the first time in recent history," Steinberg writes, "policy makers gave up on investing for the future and instead mortgaged that future to pay for the ugly economic sins of the present."

Hence a desire from today's youth that older citizens stop to consider their good fortune and do something meaningful and constructive to enable a fairer outcome for all. This, in a time when, on a state level, older citizens often benefit from generous government resources that could have been spent on youth services or family support.

So, for young people, the issue is real, live, and raw, when the once accepted notion that their hard work would automatically lead to the reasonable aspirational outcome of, for instance, homeownership, appears to be completely out of reach for the majority of their peer group. Their economic problems have been compounded by increasing rises in home rentals, ongoing student debt, and flatlining incomes, the impacts of which make saving a sizeable deposit a near-impossible task. All this while global house prices, according to *The Guardian*, have been rising at their fastest since 2006, whilst *The Wall Street Journal* notes that "pension funds are snapping up single-family homes, and institutional landlords are impacting the single-family rental market." Meanwhile "the most pernicious

thing about late-stage capitalism is the way it tries to convince millennials & Gen Zers that not owning anything, not having any long-term security, is somehow liberating."

An intriguing issue relating to intergenerational links has been noted by sociologists, including Jean Twenge, author of *iGen and Generation Me*. Twenge describes how much closer today's parents are to their children in terms of cultural bonding and the attention given to parenting styles. The result has been the erosion of a decades-old generational schism to the point of invisibility. In today's world, parents and their children increasingly listen to the same music and watch the same Netflix shows, Twenge explains. Yet this positive development has appeared at the same time as a deeply negative one, where the lack of economic (and other) opportunities directly links back to that very same generational group of parents, who may be excellent parents, but are perhaps less than excellent citizens. The key point here being that while the attitudinal gap between the generations may be narrow, the economic one is vast.

That issue was illuminated by the thinker David Willetts in his book *The Pinch* which relates to his notion that the Boomers (in the UK for instance) have effectively been 'pinching' from younger generations, mainly due to their luck in being born both at the 'right' time, but also to the fact that their large generational cohort effectively acted as a giant voting block and commercial powerhouse that could not be ignored. The result was obsessive attention given to them by politicians and businesses alike. Meanwhile, the idea of a 'pinch' also relates to the accepted notion of fair distribution that's been such a key element in society in the half century following the Second World War. But what was once a reasonably 'fair deal' has become deeply unfair, with the idea of reciprocity and thus mutual benefit (an essential foundation for bonding) being undermined by the lived experience of the young.

Today's young people were obviously once 'future people' in their own parents' early days, so what about today's unborn future generations? What do we owe them, and how much of a concern should we show them relating to the world in which they, not we, will live?

That idea, that 'future people count', is a core tenant of the 'longtermism' philosophy outlined by philosopher William MacAskill in his book *What We Owe the Future*. MacAskill suggests that we should aim not for some vague sense of utopia (which in etymological terms means 'no place') but instead have as our target the more realistic achievement of a 'eutopia' as in 'good place'.

MacAskill proposes that we abandon our selfish and pathological obsession with

short-termism, expand our horizons, and make deliberate and profound moral decisions that bring about lasting positive change. Doing so, in whichever way such efforts manifest practically, would signify that the concept of an even-handed approach to current and future generations matters. The 'current future' for millennials and Gen Z has been, is now, and will be, badly affected by the impact of those who came before them. To continue perpetuating inequalities that largely come down to luck would be unethical.

As a slight aside, politicians could do well to note that the classic right-left wing voting pattern linked to home ownership vs renting (often based on the assumption that voters become more conservative as they age) now seems to be stalling. Bluntly put, all those 'politically ignored' millennials appear to be sticking with their left-leaning politics, which may have more than a little to do with their lifestyle expectations. Meanwhile, their electoral power is increasing.

Noting the time that the 'great pause' of Covid-19 gave us to consider our current situation and future plans, the documentary filmmaker Adam Curtis said that "Covid was like lightning on a dark night – suddenly you could see what's been there the whole time." And one of the things illuminated was a deep misalignment of intergenerational fairness.

For young people who've seen many of their reasonable expectations evaporate, the time for their elders to take 'fair action' is now. Either that, or perhaps take a lead from The New York Times, whom one assumes were joking when they published an article stating that "the only way to save America's youth is to lock up the baby boomers for robbing their future." ■

"Today's young people were obviously once 'future people' in their own parents' early days, so what about today's unborn future generations? What do we owe them, and how much of a concern should we show them relating to the world in which they, not we, will live?"

Futures & Foresight Training for Your Organisation

The Copenhagen Institute for Futures Studies offers training programmes that give your team the opportunity to work together in exploring the future and learning how to integrate strategic foresight into organisational processes. Designed by our resident foresight experts, our instructor-led training is built around maximum engagement and actionable, hands-on learning, with the right balance between relevant theory and practical tools for your professional work. We currently offer several formats which can be tailored to your organisational needs:

Our bootcamp **Global Megatrends 2050** will help you deepen and enhance how you think about strategy and decision-making over the long term. We will provide your team with an overview of high-level driving forces of change and show you how to apply these drivers in a structured manner to the problems your organisation is confronting.

We also offer a **Using the Future** bootcamp designed to set you on the journey towards cultivating a futures mindset. The bootcamp introduces the practices of futures thinking and foresight while deepening your understanding of how the future guides decisions today. It will also help you build a stronger awareness of how cognitive biases and path-dependent thinking can impair our ability to see beyond existing systems and thinking patterns.

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For anyone who is curious about how our societies will evolve in the future.

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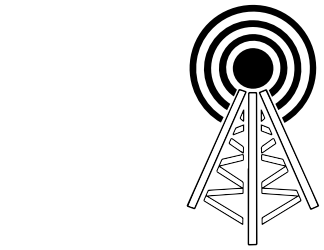

We can equip and inspire your organisation to make better decisions about the future. Through our Futures Partnership we will provide you with our strategic monitoring of critical trends and uncertainties, our tools to develop foresight capabilities, the latest futures insights from your own trusted advisor, as well as a subscription to FARSIGHT.

For organisations who want to leverage the future and be prepared in the face of uncertainty, complexity, and opportunity.

We Want to Create Representation for Future Generations

– Join Us!

The global population recently surpassed 8 billion people. Even though there are more of us alive than ever before, we are far from the only ones with a stake in the future. The billions alive today make up only a small portion of the humans who will ever live and projections indicate that most of the people who will be alive in the 21st century belong to future generations.

Just as we are slowly acknowledging the fact that humans are not the only stakeholders on Earth who require representation and legal standing to thrive, we are now also starting to realise the need to enrol future generations as constituents in our political systems. The delayed effects of climate change and the extinction crisis are perhaps the clearest examples of how our actions today are comparable to taking out loans to be repaid by our descendants. Unlike our ancestors, we have a relatively clear understanding of the long-term consequences of our decisions, and we can't excuse our lack of action with ignorance.

When it comes to safeguarding the interests of future generations in the present, things are slowly moving in the right direction. A recent United Nations report proposes member states to issue a Declaration on Future Generations to address the overlapping crises of our age, which include climate change, technological risks, demographic transitions, and persistent underdevelopment. The report builds on the heritage of the Millennium Development Goals and the Sustainable Development Goals and seeks to encourage member states to bolster their capacities for long-term governance and foresight in policymaking.

Declarations are a great place to start, and they can be useful in defining a common direction and outlining shared goals. What must follow is the difficult part of identifying (and agreeing on) measurable parameters of progress and setting up systems of political action and accountability. Giving a voice to unborn generations becomes a meaningless exercise if no one is obliged to follow through, or if we are not forced to give concession in the present to safeguard and adhere to their interests. Are we prepared to do this?

At the Copenhagen Institute for Futures Studies, we want to do what we can to make sure lofty ideals and good intentions manifest into meaningful and concrete change. We need partners and alliances to join us in our vision of integrating foresight and the long view into governance, creating representation for future generations and a voice for the perspectives that are most often neglected in future scenarios. We hope this issue of FARSIGHT has sparked interest and we encourage decisionmakers in politics and civil society to reach out to us with inquiries. ■

Get in touch

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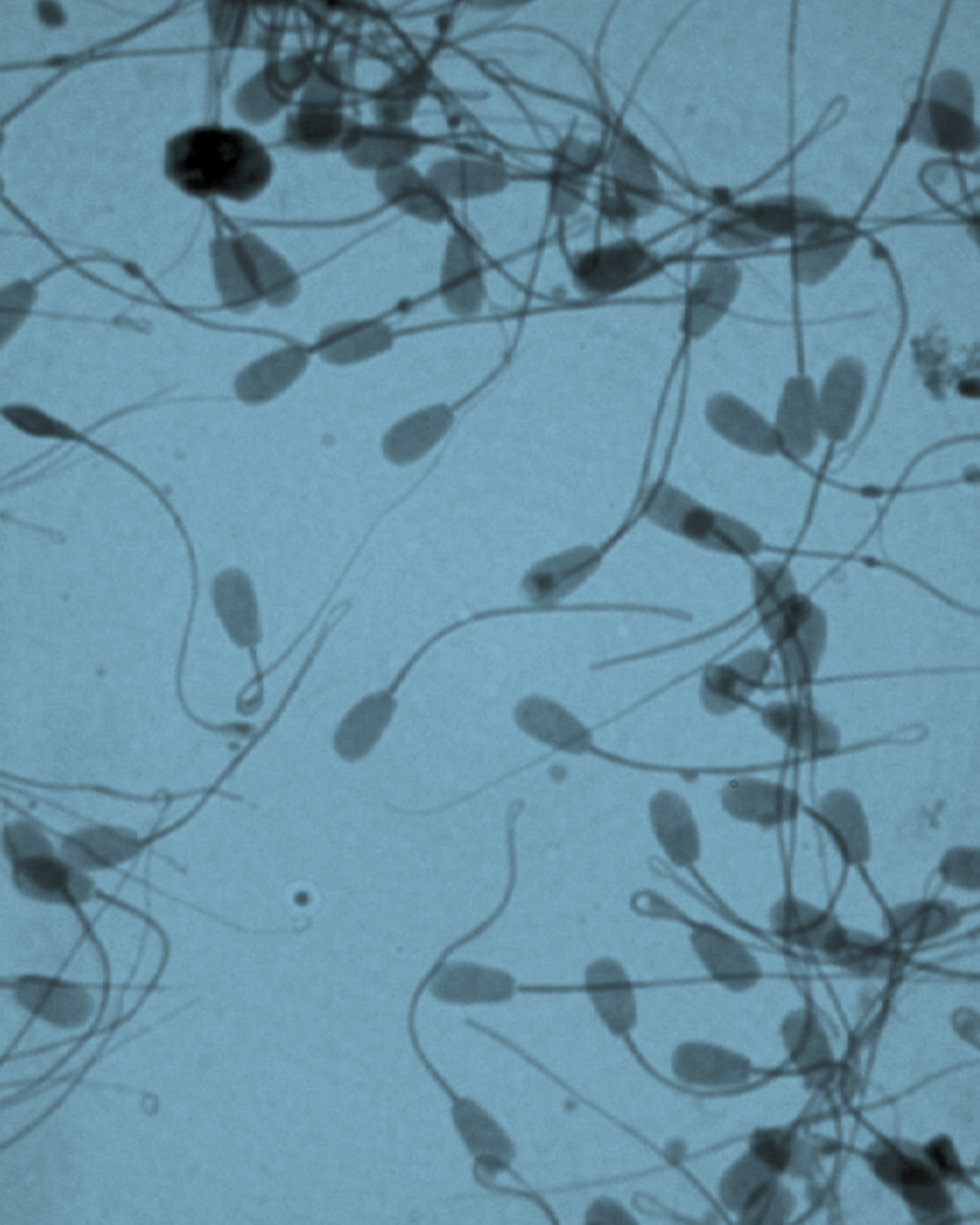

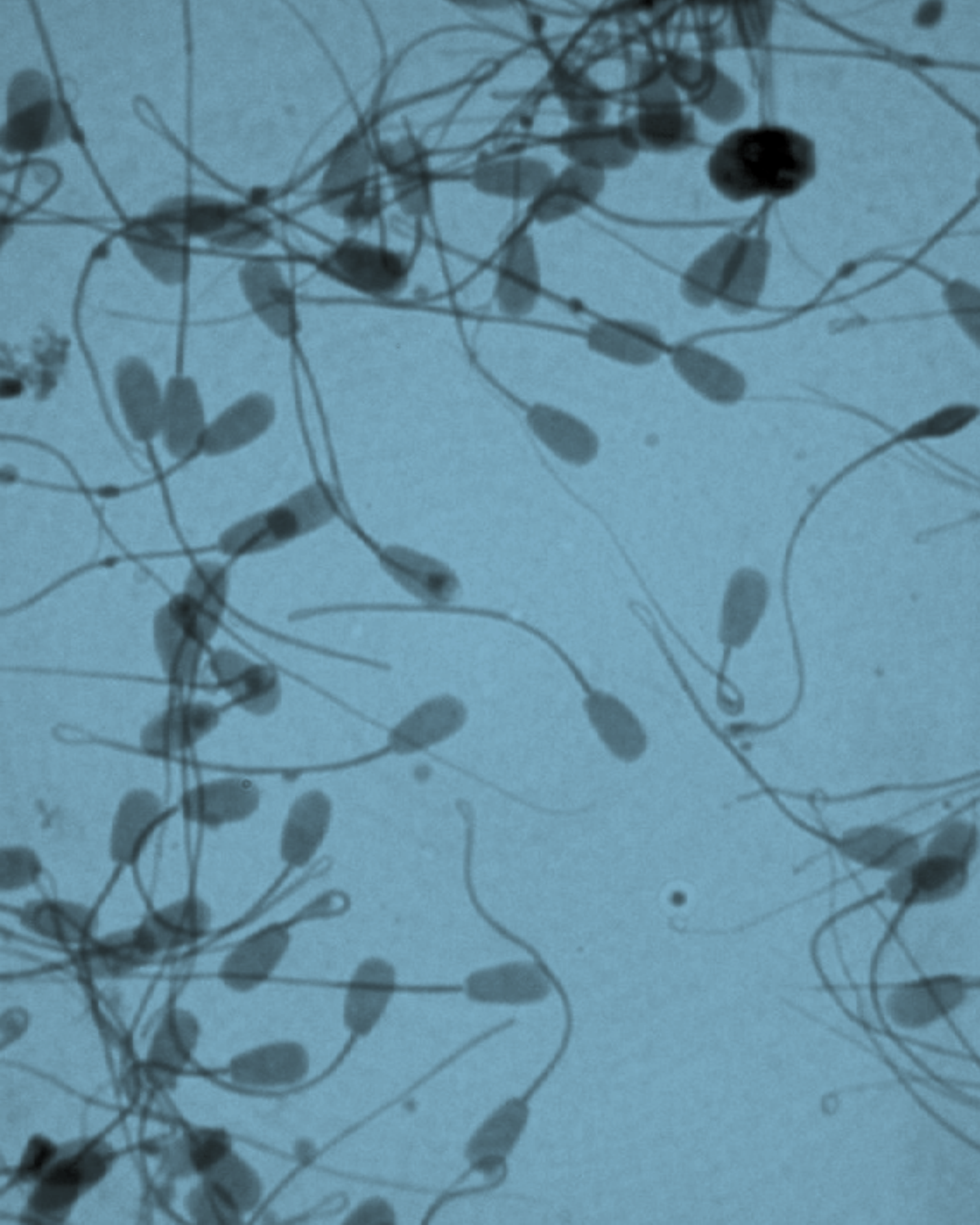

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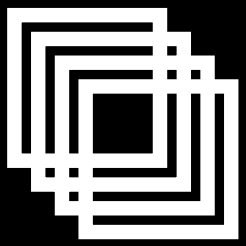

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