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Rose-tinting in the emerging discourse of the European bioeconomy

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Abstract: This article puts forward a new term and concept for ecolinguistic analysis of environmental discourse: *rose-tinting*. The term comes from the expression "viewing the world through rose-tinted glasses", which means perceiving situations in an overly optimistic or idealised way. In the context of environmental discourse, it refers to strategies such as exaggerating the benefits of technological "solutions", downplaying the scale of ecological issues, and giving minimal attention to the suffering and harm caused by ecological destruction. In general, it pays attention to environmental concerns and offers incremental improvements but fails to promote the level of systemic change necessary to address the scale of the problems. The article investigates the concept of rose-tinting through analysis of the emerging discourse of the European *bioeconomy*, examining four official policy documents from the European Commission as well as two alternative documents which express a very different vision. The conclusion argues that the environmental consideration within European bioeconomy and other policy discourses is welcome and necessary for sustainability, but rose-tinting can mean that it is not sufficient. When it comes to the future of life on Earth, it is essential that environmental discourse is "sufficient".

Keywords: bioeconomy; discourse; ecolinguistics; environmental policy

1 Introduction

We live in two worlds. In what Habermas (1987) calls the "lifeworld", a ray of sunlight filters through the trees at dawn, a cormorant struggles in a toxic lake, a deer emerges from the mist, a child lies awake at night with hunger. In the "system" world, policies are written, contracts are entered into, certificates awarded, and strategies are put in place. It is in the relationship between these two worlds that the future lives and wellbeing of all are at stake. The system world cannot be tasted, touched, or felt – it is symbolic and woven by language – but it has the power to influence human behaviour and through that to shape and profoundly impact the lifeworld. When

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analysing the language of policy documents, the questions to ask are "What kind of socially constructed system world is being brought into being through the words?", and "What kind of impact could this have on the lifeworld, i.e. the lives, wellbeing, and futures of humans and the countless species we share the planet with?". If the system world is causing great harm, then we could say that it is out of step with the lifeworld and needs to be brought back into alignment.

The climate activist Greta Thunberg spoke the following memorable words at the United Nations (UN) Climate Action Summit of 2019: "People are suffering. People are dying. Entire ecosystems are collapsing. We are in the beginning of a mass extinction, and all you can talk about is money and fairy tales of eternal economic growth" (Thunberg 2019). This was highly unusual language in this setting because of the vividness of the description of ecological destruction and because of the strength of the resistance to the dominant paradigm of economic growth. More common in environmental discourse is to write of "adverse impacts" rather than mentioning suffering and death directly, to write of "challenges" rather than "collapse", or of "sustainable economic growth" rather than any call to reduce consumption on a global scale.

An example of this kind of environmental discourse is Agenda 2030, which details the United Nations Sustainable Development Goals (SDGs). It states "Climate change is one of the greatest challenges of our time and its adverse impacts undermine the ability of all countries to achieve sustainable development" (UN 2015: 5). Here the affected participant of ecological devastation is "ability to achieve sustainable development" rather than the millions of people suffering and dying from climate change. The victims have been erased. And Agenda 2030 states that "We envisage a world in which every country enjoys sustained, inclusive and sustainable economic growth" (UN 2015: 4). Here the positive appraisal items "envisage" and "enjoy" and quantifying determiner "every" promote the goal of economic growth even for over-consuming nations, optimistically assuming that unlimited economic growth on a finite planet can somehow be made sustainable. This is part of a wider pattern described by Agbeleoba et al. (2025: 195), who found that a significant proportion of sustainable development discourse is "neutral discourse characterised by semantic vagueness and mixed messages" and "downplays ecological concerns, often privileging economic interests and hindering transformative action". Sachs (2017: 2575) likewise states that "by ignoring the status quo [i.e. the continuing destruction of the Earth], Agenda 2030 is protecting the growth model, a model which has always been prioritised over protection of nature".

In this article, I will give this type of language a name: *rose-tinting*. As far as I have been able to determine, the term *rose-tinting* has not been used before, and certainly not in the sense that I am using it. I derived the term from the expression "seeing the world through rose-tinted glasses", which means viewing things in an

overly optimistic, idealised, or positive way while ignoring or downplaying negative aspects of reality. My definition of *rose-tinting* in the context of environmental communication is *under-representation of the urgency and scale of ecological issues and over-optimism about the scale of changes needed to address them*. The definition is deliberately at an abstract level, but further granularity can be added to it by means of a characterisation. A characterisation is a list of aspects that are typical of rose-tinting and can be updated and expanded in response to empirical findings as research continues. For the purpose of this article, I will use the following characterisation:

Rose-tinting

- downplays the seriousness of ecological issues
- understates the suffering of those impacted by ecological destruction
- obscures the actors responsible for the destruction
- downplays the scale of changes necessary for sustainability
- overstates the ability of technical and efficiency changes to solve ecological issues
- by doing the above, avoids promoting systemic social, political, or economic change

In terms of validity, *rose-tinting* is simply a proposed new term with a definition and characterisation rather than any kind of empirical claim, although it is based on many years of research on environmental discourse (Stibbe 2006, 2012, 2014, 2021; Stibbe and Zunino 2008). The question to ask about newly proposed terminology is not "is it valid?" but "is it useful?". I would argue that it is useful because current environmental policies are clearly not working and need to operate on a vastly larger scale. If environmental texts are rose-tinting the seriousness of the ecological situation we face, then this could be a barrier to the scale of changes that are desperately and urgently needed. Rose-tinting, therefore, is something that needs to be revealed and called out.

In general, rose-tinting is a tactic for keeping present social and political arrangements intact by downplaying the scale of the ecological crisis and only proposing technical or efficiency measures that do not require changes to those arrangements, even if those measures are insufficient for sustainability. It is a tactic for avoiding mention of the massive economic, political, and social changes that are needed for sustainability. As Agbeleoba et al. (2025: 197) point out, "Scholars argue that what is often presented as sustainable development may serve as a tool for maintaining state and corporate power rather than achieving genuine ecological or social transformation".

The reason why official policy documents tend towards rose-tinting is because of the way they are created, where political interests and corporate lobbyists are often

consulted and make recommendations to tone down the language and remove things which might interfere with their votes, political donations, or profits (EIRIS 2025; InfluenceMap 2025; Murphy 2023). The linguistic features of rose-tinting, such as hedges, are therefore a normal part of the genre of policy documents, arising from the necessity of building consensus among stakeholders, some of them powerful voices with narrow interests. This is akin to Herman and Chomsky's (1988) Propaganda Model, where what appears in the media is filtered by the influence of billionaire owners, advertisers, the limited range of sources selected for comment, and by the interest of external corporations who use complaints or legal threats against content which does not suit their interests. In general, the voices of powerful groups who have most interest in the keeping current social arrangements intact are disproportionately represented both in the media and in environmental policy-making, compared to the vulnerable groups of human and non-human beings who are most harmed by environmental destruction. As an illustration, the advocacy group Kick Big Polluters Out reported that 1,600 fossil fuel lobbyists attended the 30th United Nations Climate Change Conference (COP 30). They state:

> Fossil fuel lobbyists outnumber official delegates from the Philippines by nearly 50 to 1 – even while the country is being hit by devastating typhoons as the UN climate talks are underway. Fossil fuel lobbyists sent more than 40 times the number of people than Jamaica, which is still reeling from Hurricane Melissa. (KBPO 2025)

Unsurprisingly, the agreed final text of COP30 (UNFCCC 2025) contains no direct references to fossil fuels (Harvey 2025).

Rather than seeing rose-tinting as a binary, I am envisioning it as a spectrum. On one end are rose-tinted or overly optimistic policy documents, which maintain the ecologically destructive status quo by failing to recognise the scale of changes necessary and exaggerating the potential of technical and efficiency "solutions". In the middle are *clear-tinted* or realistic policy documents which align with the current scientific consensus about the scale of changes necessary and recommend transformation of social and political arrangements at a scale which could achieve sustainability. The other end of the scale is *dark-tinted* or alarmist discourse, which exaggerates the severity of the ecological crisis and calls for more draconian measures than are necessary. An example is the discourse of Deep Green Resistance (McBay et al. 2011), which sees the harm caused by industrial civilisation as so severe and intractable that it needs to be dismantled through acts of sabotage (e.g. damaging oil pipelines).

The question arises of how to judge whether a particular text or discourse is rose-tinted, clear-tinted, or dark-tinted. Clearly, different analysts will have different positionality and come to different conclusions. While there cannot be one perfectly "correct" stance (because who would judge it?), it is possible for analysts to put

forward a statement of their positionality and analyse discourses in relation to it. In ecolinguistics, analysts express their stance through stating their *ecosophy*. An ecosophy is a combination of normative statements about how the world should be and a set of assumptions about how it is (Næss 1989: 37). Ecosophies are not entirely relativistic, however, since their assumptions must be based on the best available evidence, and even the normative statements must be defensible through ethical argumentation. The analysis of rose-tinting is therefore relative to the analyst's ecosophy. Essentially, the ecolinguist is pointing out how the discourse of environmental policy is more rose-tinted than their own ecosophy. The validity of the analysis depends on both the rigour of the tools used for the analysis and on how well-grounded the ecosophy is in evidence and ethical argumentation.

In addition to defining and characterising the term, the main focus of this article is on empirical research to discover specific linguistic techniques that are used for rose-tinting. Awareness of these techniques is important for recognising rose-tinting when it appears in existing discourses in order to resist it, e.g. by advising policymakers on how to avoid it. The goal is for policymakers to gain awareness of the specific techniques of rose-tinting so that they can avoid inadvertently using them in their own writing. A more general goal is for everyone to treat environmental discourse critically and become aware that the descriptions of ecological threats may be downplayed and the potential of technical solutions exaggerated.

I have chosen to focus on a specific discourse, that of the European *bioeconomy*, as a prototypical example of wider environmental and sustainability discourses, while noting that rose-tinting may occur in somewhat different ways in other discourses. The research question that this article addresses is simply "What linguistic devices are used for rose-tinting in the discourse of the European bioeconomy?".

2 Methodology

In critiquing environmental and sustainability discourses I am following a key strand in ecolinguistics that began in the early days of the discipline with the book *Greenspeak: A Study of Environmental Discourse* (Harré et al. 1999). The term "greenspeak" parallels George Orwell's (1949) "newspeak" in the novel *Nineteen Eighty-Four*, alluding to a sinister attempt by the authorities to use language in a way that disguises the truth. The concept of greenspeak is broad, "the whole gamut of linguistic means employed in raising environmental awareness in a range of discourses" (Harré et al. 1999: 2), and the book analyses an eclectic range of texts from the manifesto of the British Green Party to a statement by British Nuclear Fuels. The authors note that "Many writers on environmental matters have expressed, from time to time, an uneasiness with the linguistic resources at their disposal"

(Harré et al. 1999: ix), and much of the book raises problems with how the texts they analyse represent the environment. The book set the tone for subsequent studies in ecolinguistics such as Trampe (2001, 2018), Mühlhäusler (2003), Alexander (2009, 2018), and Larson (2011, 2018), which aim to raise critical awareness of some of the defects in environmental and sustainability discourses.

In this article, I continue with the tradition of critique of environmental and sustainability discourse for the purpose of raising critical awareness, but with four key aspects which are sometimes missing in similar studies. The aspects are (1) focusing on a specific discourse, (2) using the criteria of an ecosophy to decide whether a discourse is destructive, ambivalent, or beneficial, (3) for ambivalent discourses, treating them as something to be improved rather than just resisted, and (4) using Positive Discourse Analysis (PDA) to look for specific linguistic techniques that can be used to reduce rose-tinting and provide more clear-tinted messaging.

Focusing on a specific discourse can avoid inaccurate generalisations, but it is important to recognise that even specific discourses evolve over time. In fact, the purpose of ecolinguistic analysis is to play a role in the evolution of discourses, intervening to contribute to discursive change. A Discourse-Historical Approach (DHA) explores "how discourses, genres and texts change in relation to sociopolitical change" (Reisigl and Wodak 2016: 28). The temporal dimension will be taken into account in this study where necessary to avoid inaccurate generalisations across texts which were published at different times. This is important because what we see in bioeconomy discourse is significant criticisms of how it was first presented, and then subsequent changes in response to those criticisms.

The ecosophy used for this article is based on one that is described in detail in Stibbe (2024: 22). Summarised in one word, "*Living!*", this ecosophy calls for humans and other species to be free to live lives of high wellbeing now and into the future. This requires humanity to return to living within environmental limits to avoid catastrophic destruction, which in turn requires both technical and efficiency measures as well as a massive reduction in overall consumption. For social justice, the reduction in consumption must come from those who are significantly over-consuming, to allow those in poverty to consume more to fulfil their needs even as total consumption reduces. This ecosophy aligns with Raworth's (2018) *Doughnut Economics*, while including an ecocentric dimension which sees species beyond the human as having intrinsic value.

Since it plays a key role in this article, I will briefly give the reasoning why technical fixes and efficiency are considered insufficient on their own, and political changes that massively reduce consumption by the wealthy are essential. The first point to note is that according to the Potsdam Institute for Climate Impact Research, seven out of nine planetary boundaries have already been crossed at current consumption levels (Sakschewski et al. 2025), where "transgressing one or more

planetary boundaries may be deleterious or even catastrophic […] to human well-being" (Rockström et al. 2009). For one of those boundaries, climate change, an extremely fast reduction to net zero greenhouse gas emissions is needed by 2050 to remain within 1.5 degrees above pre-industrial levels (IPCC 2022). Technological fixes and efficiency measures are essential but suffer from Jevons paradox, that more efficiently-produced products become cheaper and therefore more of them are consumed. Solar and wind production have never been so cheap or widespread, but coal is at its highest ever use (at time of writing) because energy demand has grown faster than the increase in renewables (IEA 2025). Cars are more efficient than ever but are set to increase in number by 60 % by 2050 (Pemberton 2025) and are getting larger and heavier every year. Global freight transport, a proxy for how many goods are being consumed, is predicted to increase by 260 % by 2050 (WEC 2011). Air travel is predicted to increase 244 % by 2050 from pre-COVID levels (ACI 2025), meat consumption to rise by 70 % by 2050 (OWID 2025), and this is just a snapshot – it is possible to add air conditioners, plastic production, chemical production, and many others to this list of predicted rapid increases. Even if a massive reduction in consumption was not required now, it certainly would be at the predicted consumption levels of 2050. Action that aligns with the ecosophy therefore includes a shift to renewables and every technique possible to produce materials more efficiently, but coupled with cultural, social, and political changes to significantly reduce consumption by those who over-consume. This should be obvious given the stark levels of inequality and environmental overshoot but is so erased from official environmental policy and mainstream political discourse that it is worth clearly stating the reasoning here.

In addition to critique of negative aspects of environmental discourses, an important and emerging focus of ecolinguistics is the search for linguistic features in beneficial discourses that can replace them (Buonvivere 2024; Khasandi-Telewa 2023; Stibbe 2018). Early ecolinguistic studies did offer suggestions for improvement, but they were often ad hoc suggestions thought up by the analyst. A PDA approach (Bartlett 2012, 2017; Martin 2004) selects discourses which have been determined to be beneficial (i.e. aligned with the ecosophy) following an initial analysis, and reveals linguistic features which convey beneficial stories. Linguistic features are the formal properties of the text, i.e. the specific morphological, lexical, grammatical, and rhetorical choices of 'form' that the 'content' is expressed in. Ecolinguistic analysis differs from general critical analysis by examining not only the explicit meanings conveyed by content, but also the meanings carried by these formal choices. In fact, form is considered a part of content in ecolinguistics. An example would be the choice to place an animal as the actor of a material process, which conveys the story that they are actively living their lives for their own purposes. This would be a considered a beneficial story if the ecosophy called for recognising the intrinsic value

of animals, depending on the broader context of the sentence and text. A specific linguistic feature is not beneficial or destructive on its own, but as it is used in a particular context.

In PDA, features are still analysed critically – it is not assumed that being part of an overall beneficial discourse means that all aspects are beneficial. Instead, features are tested one by one for being beneficial through judging the stories they convey in comparison with the ecosophy. Where they are found to be beneficial, they are reported as potentially helpful features, but where they are destructive they are simply not reported because they fall outside the research question, which is "What linguistic features in the text convey beneficial stories?". PDA makes use of the same methodological techniques as Critical Discourse Analysis (CDA) – analysing patterns of language choices to reveal underlying ideologies that play an important role in structuring power relations. The difference is in the selection of the data, where rather than choosing dominant hegemonic texts that convey the stories we currently live by in unequal and unsustainable societies, the choice is of less widespread but inspirational texts which structure power relations in ways which could potentially provide beneficial new stories to live by. Rather than resisting the discourse being analysed (as CDA tends to do), the role of PDA is to promote linguistic features that convey beneficial stories. It is the cluster of features that are promoted rather than the texts themselves, since the texts may convey a mixture of beneficial and destructive stories.

This article analyses six texts about the bioeconomy, four of them official policy documents produced by the European Commission (EC), and two of them alternative perspectives that represent the views of a range of commentators outside of the Commission. The primary focus is on the official policy documents, with the alternative documents drawn on occasionally in the search for beneficial alternative phrasing.

After initial analysis, the official discourse of the bioeconomy was determined to be an *ambivalent discourse*, which means that some aspects of the discourse align with the ecosophy and some oppose it (Stibbe 2021: 25). For ambivalent discourses, the approach is to treat the producers of the discourse as well-meaning actors whose discourse is beneficial overall but (perhaps unwittingly) conveys stories that reduce its ability to be effective. Unlike destructive discourses, where the aim is to resist them, for ambivalent discourses the aim is to work with the producers of the discourse to improve them in line with the analyst's ecosophy (or an ecosophy jointly produced by analyst and discourse producer). The two alternative sources were judged as beneficial discourses (overall) in relation to the ecosophy and therefore suitable for PDA.

To answer the research question, the four official policy documents from the European Commission were analysed to discover forms of rose-tinting, using the definition above and the characterisation which expanded the definition into specific aspects. Three of these aspects were chosen to focus on – how rose-tinting (a) downplays the scale of ecological destruction, (b) downplays the scale of changes necessary for sustainability, and (c) overstates the ability of technical and efficiency changes to solve ecological issues. The four official documents were all carefully analysed to discover instances of these three aspects, as judged in comparison with the ecosophy. For example, an instance would be judged as downplaying the scale of ecological destruction if its description presented the destruction in a milder way than it is considered in the ecosophy. Once these instances were identified, they were analysed linguistically to reveal the specific mechanisms used, looking at metaphors, framing, presuppositions, appraisal, transitivity, identity markers, erasure, narrative structure, and other linguistic devices that are commonly used in ecolinguistic study (Stibbe 2024, 2021). In addition to the standard devices looked at in ecolinguistics, an attempt was made to discover additional linguistic devices which could be added to the toolkit of ecolinguistics. While the definition remained constant throughout the study, the characterisation was initially created following an impressionistic reading of the data, but in an iterative process was adjusted as the analysis found new or different forms of rose-tinting.

Some caveats to mention are that the research question, "What linguistic strategies are used in the discourse of the European bioeconomy for rose-tinting?", requires only a list of strategies as an answer, not a quantitative judgement of the extent of rose-tinting in the discourse of the bioeconomy as a whole. The question of extent is something for future quantitative research to explore through systematic coding of the corpus to reveal cumulative patterns. The purpose of this article is to introduce the term *rose-tinting* and describe some of the linguistic strategies used to achieve it.

3 The discourse of the bioeconomy

The term *bioeconomy* is contested and there are various definitions (Pavone and Goven 2017: 5), but the 2025 European Commission strategy describes it succinctly as "economic activities based on the sustainable use of biological resources" (EC 2025). Although first used by Georgescu-Roegen (1977) in an essay which emphasised the limitations of biological resources and critiqued the paradigm of economic growth, it started being used in its modern sense in the 1990s, for example by Enriquez (1998). The term first gained prominence after publication of the Organisation for Economic Cooperation and Development (OECD) report *The Bioeconomy to 2030: Designing a*

Policy Agenda (OECD 2009) and became widespread after the European Commission launched its first bioeconomy strategy *Innovating for Sustainable Growth: A Bioeconomy for Europe* (EC 2012). Since then, the European Commission has provided updates and progress reports (EC 2018, 2022), with a new strategy published in 2025 (EC 2025). The evolution of the term has proved controversial, however. Vivien et al. wrote a strongly worded piece entitled *The Hijacking of the Bioeconomy* which claimed that "the use of the term 'bioeconomy' in support of the hypothesis of a perpetual economic green growth can be seen as a semantic and conceptual hijacking of Georgescu-Roegen's term" (Vivien et al. 2019: 159).

Of course, it could be argued that the primary role of the European Union is to manage the intertwined national economies of the member states, and that the bioeconomy strategy is primarily an economic strategy. It therefore could not be expected to provide a fully comprehensive response to the unfolding ecological crisis. However, this would be to miss the connections between economy and ecology that ecological economists such as Daly (1993: 811) frequently point out: "the economy is a subsystem of the Earth's ecosystems". Even in pure utilitarian economic terms, it makes economic sense to keep the planet liveable as there can be no economy on a dead planet. It is to the enormous credit of bioeconomy discourse that the discussion does not just stop with competitiveness and economic growth but that ecological factors are considered. The argument of this article is that certain rose-tinting features may be holding the discourse back from integrating ecological concerns as fully as they deserve.

When a new and powerful discourse emerges then it is particularly important to analyse it critically, both to promote its beneficial aspects, and to contribute to its ongoing evolution by exposing its downsides. Against the backdrop of well-meaning, beneficial but ultimately limited mainstream sustainability discourse, the discourse of the bioeconomy has arisen and come to the fore in Europe. This discourse draws heavily from sustainable development discourse but closes down some aspects of it and opens up new directions. The discourse is doing more than transparently describing a pre-existing object, "the bioeconomy", instead it is bringing this object into being through its words, because, as Foucault (2002 [1972]: 54) explains, "discourses are patterns of texts which systematically form the objects of which they speak". This particular discourse is important because the term "bioeconomy" is made up of two morphemes: the bound morpheme "bio" is short for "biological", i.e. the totality of life in all its myriad forms, while the free morpheme "economy" is a social construct, sometimes constructed in a way that subsumes everything under the imperative of economic growth. Without careful phrasing in policy documents, the danger is that the bioeconomy is constructed in a way that promotes the commodification and consumption of life in order to serve profit and growth, that "life becomes, literally, annexed within capitalist processes of accumulation" (Cooper 2011: 19).

Table 1: Documents analysed.

Reference	Document title	Produced by
EC (2012)	*Innovating for Sustainable Growth: A Bioeconomy for Europe*	European Commission
EC (2018)	*A Sustainable Bioeconomy for Europe: Strengthening the Connection Between Economy, Society and the Environment.*	European Commission
EC (2022)	*EU Bioeconomy Strategy Progress Report. European Bioeconomy Policy: Stocktaking and Future Developments*	European Commission
EC (2025)	*A Strategic Framework for a Competitive and Sustainable EU Bioeconomy*	European Commission
Giuntoli et al. (2023)	*Exploring New Visions for a Sustainable Bioeconomy*	Jacopo Giuntoli, Tom Oliver, Giorgos Kallis, Sabaheta Ramcilovic-Suominen, and George Monbiot
EU Bioeconomy Youth Ambassadors et al. (2024)	*Bioeconomy Youth Vision*	Bioeconomy Youth Ambassadors

The six documents in Table 1 were selected for analysis. Four of the documents were chosen to provide a representative sample of mainstream European bioeconomy discourse, given their foundational role in establishing the bioeconomy as a major area of concern for Europe. Two other documents were selected to give alternative formulations to discover beneficial features.

The mainstream documents are the original European Commission bioeconomy strategy (EC 2012), the updated strategy (EC 2018), an important progress report (EC 2022), and a recent new strategy (EC 2025). Together, these four documents give an indication of the official European Commission discourse of the bioeconomy as it has emerged over time. The other two reports, *Exploring New Visions for a Sustainable Bioeconomy* (Giuntoli et al. 2023) and the *Bioeconomy Youth Vision* (EU Bioeconomy Youth Ambassadors et al. 2024) were published in association with the European Commission, but start with disclaimers stating that they "do not necessarily reflect the position or opinion of the European Commission" (Giuntoli et al. 2023) and "do not necessarily reflect the official opinion of the European Commission" (EU Bioeconomy Youth Ambassadors et al. 2024). These two documents were selected for being potentially more clear-tinted than the official discourse because their production methods were not constrained by the consultation, lobbying, and editing processes that go into producing official policy documents. It is to the credit of the European Commission to open debate by publishing these dissenting voices.

4 Analysis

4.1 Downplaying the seriousness of ecological issues

According to the ecosophy, the threat posed by ecological destruction is severe. At the time of writing, seven out of nine planetary boundaries have already been broken (Sakschewski et al. 2025), global consumption is increasing rapidly (ACI 2025; OWID 2025; Pemberton 2025; WEC 2011), carbon dioxide equivalent (CO_2e) emissions are at their highest ever level, 65 % higher than 1990 (JRC 2025), coal use is at its highest level ever (IEA 2025), and recorded populations of wild mammals, amphibians, reptiles, birds, and fish declined by 73 % (WWF 2024). This is the background against which the bioeconomy strategies address sustainability issues. Occasionally, this background is represented in the bioeconomy documents in a clear-tinted way, for example:

> Europe is confronted with an unprecedented and unsustainable exploitation of its natural resources, significant and potentially irreversible changes to its climate and a continued loss in biodiversity that threaten the stability of the living systems on which it depends. (EC 2012: 9)

However, a detailed study of 78 bioeconomy policy documents, Proestou et al. (2024: 376) found that "goals and visions prioritize economic growth, while environmental considerations are less salient", and they "do not consider any of the sampled documents to have a bio-ecological vision, given their overall strong economic focus and alignment to a weak understanding of sustainability" (Proestou et al. 2024: 376). Similarly Kleinschmit et al.'s (2017: 51) research "supports findings of earlier papers in concluding that bioeconomy discourse is dominated by economic goals […] In contrast, environmental concerns are only considered to a limited extent in the political bioeconomy discourses of the EU". The analysis of rose-tinting can help reveal some of the linguistic features which contribute to this subordination of ecological concerns to economic interests. For example, even the name "bioeconomy" gives the ecosystems that life depends on less salience than the economy, since "bio" is a bound morpheme while "economy" is the unbound morpheme carrying the core lexical meaning.

The most recent bioeconomy strategy from the European Commission opens with the following paragraph:

> **The bioeconomy represents a strategic opportunity of the 21st century** – a driver of green growth, competitiveness and resilience. It makes better use of Europe's biological resources, scientific excellence and industrial base to decarbonise our economy and replace fossil-based materials and products. It develops practical solutions that support economic prosperity, and strong rural and coastal communities, while helping industry shift to more circular production modes […] [and] […] can contribute significantly to climate and environmental goals. (EC 2025: 1, emphasis in original)

The language here is bold, active, and positive. There is a vehicle metaphor triggered by "driver", a problem-solution framing that focuses on the solution rather than the problem, and a focus on the positively valenced "opportunity" rather than the threat of ecological destruction. The measures given in this paragraph to address ecological destruction refer to science, industry, circularity, and better use of resources, but do not mention political, social, or economic transformation or a drastic reduction in consumption. In other words, they are primarily technical and efficiency changes. Strong claims are made about the contribution that such measures can make, with the intensifier "significantly" used in "contribute significantly to climate and environmental goals". Mittra and Zoukas (2020: 20) describe how the "promissory and expectant discourse [of the bioeconomy] is part of the future-oriented vision of the European Commission".

It is important to celebrate the inclusion of ecological issues right from the start – it could have been a straight industrial strategy with no consideration for the ecosystems that life depends on. However, there is some rose-tinting around the seriousness of ecological issues even in this paragraph – subtle ways of writing which make them appear to be a secondary priority. An example is the noun phrase "green growth", where "green" is only the modifier, while the head, which carries the primary focus of the noun phrase, is "growth". This makes the overall frame an economic one, and perpetuates the emphasis on economic growth at all costs which is a key factor in ecological destruction (Costanza et al. 2014). In the expression "solutions that support economic prosperity", the Beneficiary (in systemic functional terms) of the solution is economic prosperity rather than the wellbeing of humans, other species, and the ecosystems that life depends on.

The intense focus on the economy continues with further vehicle metaphors later in the document:

- the EU's bioeconomy is a dynamic **driver** for competitiveness (EC 2025: 1)
- the framework to **accelerate** innovation, improve market access and support scale-up (EC 2025: 6)
- **accelerate** product authorisations (EC 2025: 4)
- **accelerate** the industrial readiness of bio-based materials (EC 2025: 9)
- **the engine** that makes bio-based solutions affordable, competitive, and deployable at industrial scale (EC 2025: 3).
- turn Europe's biological resources into **engines** of growth (EC 2025: 19, emphasis added in each case)

The triggers highlighted in the above examples are "driver", "accelerate", and "engine" and the target domains are commerce and the economy. Vehicle metaphors are aligned with going forwards, with progress, with moving along a pathway towards a goal, and are positively valenced since they align with the FORWARDS IS GOOD

conventional metaphor (Lakoff and Johnson 2003: 43). However, in the discourse of the bioeconomy, they are almost exclusively used with economic issues rather than ecological ones. One exception (and it is important to notice and praise exceptions) is "being economically viable with sustainability and circularity in the driver's seat" (EC 2018: 7) where "economically viable" is a more realistic goal than economic growth, and sustainability is determining the direction of the vehicle rather than competitiveness or profit.

While driving is a spatial metaphor of going forward, EC 2025 also contains numerous spatial metaphors which are oriented upwards (e.g. "market scale-up", "scale up investment", "scale up to industrial production", "scale-up financing", "scale-up of industrial biotechnology"), again referring to the economy. There is no hint at scaling *down* production, consumption, or economic activity to protect the ecosystems that life depends on; scaling *up* efforts to protect the environment; or going *back* to traditional ways of meeting human needs that were more sustainable. The words "down" and "back" simply do not exist within this forward and upward looking document. There is one notable exception, however, the metaphor of the *circular* economy, where the direction is not forwards along a straight line, and this will be discussed later.

Within EC 2025, the term "ecosystem" is used most frequently in its conventional sense of a life-sustaining community of organisms interacting with each other and the physical environment. Expressions like "pressures on ecosystems" (EC 2025: 8), "ecosystem health" (EC 2025: 14), "restoring ecosystems" (EC 2025: 15), and "protecting vulnerable ecosystems" (EC 2025: 16) are beneficial according to the ecosophy since they express concern for the ecosystems that life depends on. Frequently, however, across the discourse of the bioeconomy, the term "ecosystem services" is used, e.g. "the delivery of ecosystem services by the soil" (EC 2012: 10) or "Natural Capital and ecosystem services" (EC 2018: 97). This is still ecosystem in the sense of life-sustaining community, but the word "services" triggers an economic frame, rendering the value of ecosystems only in how they provide services for humans, not in their own right or for how they support all species. The term "ecosystem" is also used in a non-literal way, for example:

- supports regional processing **ecosystems** (EC 2025: 12)
- support for SMEs and innovation **ecosystems** (EC 2025: 12)
- mobilise capital and strengthen industrial **ecosystems** beyond EU borders (EC 2025: 18)
- industrial capacity, innovation **ecosystems**, and market maturity (EC 2025: 19)

The term is modified here by "processing", "innovation", and "industrial", which turns it into a metaphor, drawing attention away from the life-sustaining nature of literal ecosystems.

Although there are frequent mentions of sustainability and ecological issues in the discourse, which are highly welcome, the predominance of economic narratives is clear even in the titles of the documents. The title of the 2025 strategy is "A strategic framework for a competitive and sustainable EU bioeconomy" (EC 2025), which places "competitive" first. Pavone and Goven (2017: 7) describe how the focus on competitiveness, which is taken as an unquestioned positive goal in bioeconomy documents, obscures both social justice and ecological issues. The original strategy was called "Innovating for sustainable growth" (EC 2012), where "sustainable" was merely the modifier of "growth". The updated strategy (EC 2018) was titled "A sustainable bioeconomy for Europe: strengthening the connection between economy, society and the environment", where "sustainable" is a modifier, the economy comes first in the list and the environment only comes last. As Mittra and Zoukas (2020: 10) point out, within bioeconomy discourse, the "predominant narrative is about creating new markets for industrial biotechnology".

One construction which appears in bioeconomy discourse is **"X while Y"**, where X is the main clause, "while" is a subordinating conjunction, and Y is a subordinate clause with the verb in the form of a present participle. The following are examples:

- achieve productivity increases while ensuring sustainable resource use and alleviating stress on the environment. (EC 2012: 10)
- advancing agricultural productivity while limiting environmental impacts. (EC 2012: 32)
- spawn […] economic opportunities for growing bioeconomies, while preserving the intrinsic value and biodiversity of our ecosystems. (EC 2018: 90).
- boosting up private investments in the deployment of biorefineries and the market expansion of bio-based products while ensuring the sustainability of biomass supply. (EC 2022: 68)

In these examples, economic factors feature in the main clause while ecological factors are in the subordinate clause. This puts primary importance on the economy, while ecological issues are secondary – the ecological is literally subordinated. The examples follow what I call "*the logic of while*", i.e. pursuing economic goals *while* protecting the environment. The "logic of while" indicates the pursuit of opposing goals, or, as Sachs (2010: 29) puts it, stretching concepts "in such a way as to include both injury and therapy". Sachs (2010: 29) gives the example of "sustainable development" which he describes as "the conceptual roof for both violating and healing the environment", where development is built around an ecologically destructive "frenzy of accumulation" and "sustainable" tries to heal the damage it causes. Less dramatically, Mittra and Zoukas (2020: 2) describe how different framings of the bioeconomy "are driving different and often incompatible conceptions of value and benefit". However, there is one exception in the 2022 strategy update which states

"The European Union is aiming at decreasing its greenhouse gas emissions while stimulating economic growth" (EC 2022: 60). In this case the logic of while is reversed and economic concerns are subordinated to environmental concerns.

An alternative to the logic of while is "*the logic of in order to*", for example measuring Gross National Happiness instead of Gross National Product *in order to* protect the environment (Muller and Wangchuk 2008). The "logic of in order to" means that economic arrangements are redesigned so they work towards the goals of wellbeing and the flourishing of life, rather than continuing with the old economic goals of maximising production, consumption, growth, profit, and competitiveness while attempting to protect the environment from their consequences.

The alternative vision document, *Exploring New Visions for a Sustainable Bioeconomy* (Giuntoli et al. 2023) provides new frames for the bioeconomy that overcome the predominance of economic growth and competitiveness over ecological concerns. Among the frames used are *reciprocity, interdependence, kinship, solidarity, reconnection,* and *harmony* with nature, and *care* and *responsibility* for the environment. These all emphasise connection and care for the ecosystems that life depends on as the primary goal. Overall, the document presents:

> an alternative vision for a "green, just and sufficient bioeconomy". This vision places environmental sustainability and social equity at its core, regardless of economic growth; has an inclusive and participatory perspective; care, respect, and reciprocity for and with other humans and non-humans are core values. (Giuntoli et al. 2023: 1)

In this alternative vision, ecological issues are foregrounded by being placed first in the list. The term "green" is there in its own right rather than as a modifier, followed by social justice, and economic issues come last. Even then, economic issues are framed as "sufficient" which inherently respects limits rather than using frames of growth or competitiveness which have no limits built into their semantics. Anthropocentrism is avoided by placing "non-humans" as the Beneficiary participant of "care, respect and reciprocity" alongside humans. The vision expressed here is clear-tinted since it does not shy away from recognising the importance of social justice and ecological issues, placing them "at its core", while sidelining growth with the compound preposition "regardless of". This aligns with the ecosophy and Raworth's (2018: 26) *Doughnut Economics* – "today we have economies that need to grow, whether or not they make us thrive; what we need are economies that make us thrive, whether or not they grow." The document uses a whole series of frames to restructure the economy that avoid the extrinsic values of growth, competitiveness, and profit – *degrowth, justice, equity, economic transformation, fair shares, co-operatives, sufficiency,* and *wellbeing* (with wellbeing as the goal of the economy). In sum, Giuntoli et al. (2023: 1) present a more clear-tinted perspective by foregrounding

ecological issues over economic ones, and representing economic issues in ways that respect ecological limits.

The specific ecological issues that are being faced – climate change, biodiversity loss, water scarcity, over-fishing, chemical contamination etc. – are frequently mentioned in the discourse of the bioeconomy strategy, and this is highly welcome and important according to the ecosophy. However, the way that they are mentioned sometimes seems to downplay the threat that they pose to the future of life. One way to illustrate this is by comparing a statement from EC 2018 with an equivalent statement from the GEOMAR Helmholtz Centre for Ocean Research Kiel:

– Progress to achieve sustainable optimal exploitation of fish to ensure that all stocks will meet EU policy objectives seems too slow. (EC 2018: 40)
– As legally required by the European Union, sustainable fisheries may not extract more fish than can regrow each year. Yet, about 70 per cent of commercially targeted fish stocks in northern EU waters are either overfished, have shrunken population sizes or have collapsed entirely. (GEOMAR 2025)

The first example is from bioeconomy discourse – the 2018 strategy. The *Theme* of this first example, which in systemic functional grammar is the point of departure or the first element that appears, is the positively valenced term "progress". In the rest of what is just a short extract there are three other positively valenced terms: "achieve", "sustainable", and "optimal". There is only one negatively valenced term "slow" to suggest a problem, and even that is hedged by the verb "seems" which reduces its facticity. It also appears as the last word of the clause which reduces its prominence. In contrast, the second example from GEOMAR is highly specific, unhedged and contains the negatively valenced terms "overfished", "shrunken", and "collapsed", with the intensifier "entirely". The problem with the rose-tinted first version is that while it draws attention to the issue (which is welcome), it does not generate a sense of certainty, scale, and urgency to promote decisive action.

One of the key ecological issues that the world faces is climate change, so it is important to examine how it is represented in bioeconomy discourse. One way to do this is to examine the collocates of the word "climate", i.e. words which appear in its immediate vicinity. To generate the collocates, I used the corpus analysis software AntConc 4.3.1 (Anthony 2024) on all four mainstream bioeconomy documents, with a range of 4R to 4L, manually checking the context where necessary to clear up any ambiguities. Table 2 shows key content words that appear within four words of the term "climate" (on either side), organised into semantic categories.

The first thing to notice in Table 2 is some clear-tinting in terms of representing the scale and seriousness of ecological issues. Climate change, desertification, pollution, and other serious issues are all mentioned. The specific impact of climate change in terms of floods and droughts is mentioned, with some intensifiers

Table 2: Collocates of "climate" across all four official EC documents.

Semantic categories	Collocates of "climate"
Economics	Competitiveness, consumer, economy, economic, financing, growth, industry, jobs, market, production, resources, trade
Positively valenced terms related to addressing climate change	Benefits, opportunities, potential, security, achieving, clean, strengthen, sustainable, solutions, protection, enhancing, resilience, synergies, efficiency, transformation, optimise, stabilise, safeguard, improving, enhanced, boost, better, positive
Strategies	Assessment, forecasts, goals, initiatives, management, measures, missions, modelling, objectives, performance, plans, policy, priorities, projects, regulation, requirements, scenarios, targets, taxonomy
Ecological issues	Biodiversity, climate change, desertification, fertility, food security, forests, oceans, overexploitation, pollution, soil, water, issues
Greenhouse gases	Carbon, emissions, GHG, [carbon] neutral, [carbon] neutrality, reductions, sequestration
Threats posed by climate change	Adverse, challenges, droughts, effects, exacerbating, floods, impacts, irreversible, persistent, pressures, risk, serious, severity, stress, threats, vulnerable
Actions to deal with climate change	Fighting, response, address, action, mitigating, adapting to, limiting, considering

suggesting magnitude (serious, severity) and some which have negative prosody (adverse, exacerbating, irreversible, persistent, pressures, risk, stress, threats, and vulnerable). In terms of dealing with climate change, "fighting" is a strong material process that indicates commitment. This clear-tinting is welcome but occurs only occasionally across the documents, with very little in the most recent (EC 2025) strategy document.

As well as occasional clear-tinting, the collocations in Table 2 reveal rose-tinting too. Firstly, the phenomenon is always referred to with the collocate *change*, i.e. "climate change", never climate *crisis* or climate *catastrophe*, as I will discuss later. There is a much stronger focus on technocratic strategies and the benefits and positive impacts they will have (particularly in economic terms) than on the severity of ecological issues and the destruction of the environment. In other words, the focus on what are quite modest "solutions" and the business opportunities they open up is so strong that the actual problems they are intended to solve are often obscured. As an illustration, the word "opportunity" appears 101 times across all four documents while "threat" appears 10 times. The word "create" appears 172 times, while "destroy" appears only once (including morphological variations in each case). Where the word 'destroy' does appear, it seems at first to be clear-tinting:

> Without developing this knowledge base, the bioeconomy could end up further putting unsustainable pressures on nature, and destroying the foundations upon which it is built. (EC 2018: 93)

However, the Goal participant, the one being destroyed, is the foundations of the bioeconomy rather than something far more important that would be destroyed due to pressure on nature, and that is the ecosystems which life itself depends on. The relentless focus on opportunities and downplaying of threats is characteristic of the genre of strategies on the whole, so is hardly surprising. However, when strategies are at a level where they can influence the future of life then it may be necessary to bend the genre and express the seriousness of the situation more vividly.

Some of the collocates in Table 2 used to describe the ecological devastation caused by climate change are only mildly negative, for example "pressures", "adverse [impacts]", "risk" and "challenges". The word "challenge" is one of the main ways of framing ecological destruction in bioeconomy discourses (Kleinschmit et al. 2017: 48), but has only mildly negative prosody compared with a word like "crisis" – we could say "I enjoy a challenge" but not "I enjoy a crisis" (see Hauser and Schwarz 2023). The word "pressure" is semantically negative but is also mild since it does not imply that destruction is imminent or currently occurring. The collocates "[climate] impacts" and "effects [of climate change]" are neutral when it comes to ecological destruction because these terms in everyday use can be positive or negative. Similarly, for the taking action category, the collocates "address [climate change]", "response [to climate change]", and "considering [climate change]" are mild – certainly suggesting something should be done, but giving no commitment to the extent of the action required.

All four official policy documents exclusively use the expression "climate change" to refer to the phenomenon itself, which, although standard, is not the only way. The noun "change" is semantically neutral since change could be positive or negative. It is instructive to look at other ways that the phenomenon is described in Giuntoli et al.'s (2023) report, *Exploring New Visions for a Sustainable Bioeconomy*, which is one of the two non-mainstream texts that are being examined in this article to explore alternative perspectives. In Giuntoli et al.'s (2023) report, in addition to the term "climate change", the phenomenon is described as "climate breakdown" (Giuntoli et al. 2023: 3), "climate crisis" (Giuntoli et al. 2023: 4), "catastrophic climate change" (Giuntoli et al. 2023: 24), "climate colonisation" (Giuntoli et al. 2023: 36), "climate injustice" (Giuntoli et al. 2023: 36), "climate apocalypse" (Giuntoli et al. 2023: 36), and "existential threat of climate breakdown" (Giuntoli et al. 2023: 43). These additional ways of referring to climate change can be seen as evaluative – not just denoting a climatic phenomenon but also evaluating its seriousness and potential for harm. In order of severity, the terms "crisis", "breakdown", "catastrophe",

"existential threat", and "apocalypse" span the spectrum from clear-tinting, to, potentially, dark-tinting (viewing the world through dark-tinted glasses that make the situation seem worse than it actually is). There is little more extreme than "apocalypse", except perhaps "cataclysm". The danger of dark-tinting is that an audience can dismiss it as inaccurate alarmism rather than a realistic representation of the severity of the situation. However, in context, the document used the term "climate apocalypse" only for local rather than global conditions, which reduces the dark-tinting. The following is the full context:

> Climate apocalypse is a reality for many in the Global South already at the current scale of change in climate, as we witness devastating effects year after year, from heatwaves, to droughts, wildfires and storms displacing millions of people every year. The responsibility to act now and to act faster is with the high-income, Global North countries. The current policies and even pledges are incompatible with the life on Earth as we know it. (Giuntoli et al. 2023: 36)

In addition to the term "climate apocalypse", the extract uses several techniques to avoid rose-tinting the scale of ecological destruction and present an account that can be judged as clear-tinted according to the ecosophy. The adjective "devastating" modifying "effects" is a strongly intensifying adjective (Martin and White 2005: 148) with negative polarity. The temporal circumstantial element "year after year" emphasises the continuing and relentless harm, and the "current scale" implies even worse outcomes if nothing changes. The harms are elaborated in a list with the from/to structure suggesting that there are many more harms. All these are then represented as a cause and logically linked to the effect of "displacing millions of people". The quantification of the victims of climate change in the "millions" foregrounds the scale of tangible human suffering. There is thematic progression from the harm that is caused now, to the ethical responsibility to act, to a political critique of current action, and to what that implies, which is a threat to life. The entailment of this thematic progression is that the lack of action by Global North countries is causing mass suffering, which will get much worse and more widespread if action is not taken. The temporal aspects in the call to action "act now and act faster" highlight the urgency, and overall message is one which demands immediate and significant action. According to the ecosophy, this is a clear-tinted account, shading perhaps towards dark-tinting, but powerful and valuable nonetheless.

4.2 Downplaying the scale of changes necessary for sustainability

A central principle of the ecosophy is the urgent need for a substantial reduction in consumption by over-consumers to enable those living in poverty to increase their

consumption even as overall global consumption reduces to a level compatible with ecological limits. Reduction, after all, comes first in the common "Reduce, Re-use, Recycle" mantra. However, the discourse of the bioeconomy uses various techniques to avoid calling directly for a reduction in consumption. The following is an example:

> **Consumption patterns** need to become more **sustainable** to guarantee environmental integrity, as technological solutions alone are not able to close the gap between sustainable supply of biological resources and demand. With additional focus on the **total demand for biological resources**, more **sustainable consumption choices** based on true costs could be better assessed and measured. Demand-driven bioeconomy action can trigger high **investments in sustainable bioeconomy businesses**. (EC 2018: 26, emphasis in original)

This excerpt can be praised according to the ecosophy because it admits that technical solutions cannot match the scale of demand for biological resources, and that consumption will need to be reduced to avoid irreversible harm to the ecosystems that life depends on. However, it expresses it in a mild, *rose-tinted* way. The rose-tinting occurs because there is no direct call for anyone to reduce their consumption. Instead, consumption patterns need to be "more sustainable", two terms which are both positively valenced through being the unmarked (positive) poles of the pairs **more**/less and **sustainable**/unsustainable. More sustainable implies that current consumption levels are sustainable but need to become even more so. It would have been more realistic and clear-tinted to use the marked (negative) poles by demanding ***less*** consumption because our current consumption levels are ***unsustainable***. Within a growth and profit-orientated society, it fits corporate and political interests if policy documents are asking for more of something rather than less.

The extract can also be praised for mentioning the "total demand for biological resources", which is a key consideration since these "biological resources" consist of the life of our planet, and if demand is too high then that life is harmed. However, the extract only goes as far as a "*focus* on total demand", a mental process rather than a material process of actually reducing that demand. And the only way proposed to reduce the demand is through "*sustainable consumption* choices", which only need to be "assessed" and "measured" rather than more active verbs like "encouraged", "promoted", or "enforced" (e.g. through choice-editing that makes sustainable options the only ones available). The extract then suddenly swerves in theme to an economic framing of high investment in bio-business, distracting attention away from the very subtle call for reduced consumption.

Sustainable consumption is one of a family of expressions including "sustainable industrialisation", "sustainable growth", "sustainable technology", "sustainable exploitation" and, of course, "sustainable development", which take the root causes of the environmental crisis and represent them instead as solutions (see Sachs 2010). Pairing the positively valenced adjective "sustainable" as modifier with any noun

will produce a noun phrase with overall positive valence. This approach shows an unwillingness to rethink the stories that our unsustainable industrial civilisation is based on. Instead of "sustainable growth" it would be possible to think about "degrowth"; instead of "sustainable industrialisation" we could think about "deindustrialisation". Instead of "sustainable exploitation" of nature, we could think about working in harmony with nature. And, most importantly of all, instead of "sustainable consumption" we could, and urgently need to, think about "*less* consumption".

The problem with the term "sustainable consumption" is that in the material process *X consumes* Y, the Actor is X, who is actively performing the material process of consuming the Goal, Y. This focuses attention away from what might be the most sustainable option of all – that X decides *not* to consume Y at all because it is unnecessary to do so. In other words, the term "sustainable consumption" is, grammatically at least, always an act of consumption, rather than being an act of declining to consume something.

To realise how indirect the call to lower consumption is in the mainstream discourse of the bioeconomy, it is instructive to look at how the Bioeconomy Youth Ambassadors make the same point, as follows:

> Our vision for bioeconomy […] seeks to encourage the sustainable use and regeneration of our planet's resources, minimising consumption within ecological limits […] (EU Bioeconomy Youth Ambassadors et al. 2024: 3)

> ensure sufficiency for all, particularly in food, water, energy, and shelter, while curbing excessive consumption by the wealthiest 10%. (EU Bioeconomy Youth Ambassadors et al. 2024: 8)

> Therefore, unless we are to address our ever-growing, oversized economy and the excess consumption of the wealthiest members of society, there is no point in discussing sustainability. We must go to the root cause of our issue and decide that now is finally the time to scale down our economic activities and make peace with nature before this decision is made for us. (EU Bioeconomy Youth Ambassadors et al. 2024: 8)

These extracts explicitly recognise that too much is currently being consumed with the negatively appraised terms "oversized economy", "excessive consumption", and "excess consumption". They explicitly call for a reduction in consumption and economic activity with the expressions "minimising", "curbing", and "scale down". This is in contrast with bioeconomy discourse and its strong calls for scaling-up and growth and its weak calls for "sustainable" consumption. Importantly, the extracts are explicit about who is responsible for the excess consumption and who must reduce their consumption. The Actors of the process of excess consumption are "the wealthy" and "the wealthiest members of society". The first statement is backed up by the high facticity, high modality expression "there is no point" to express

conviction and certainty. The second uses the metaphor of "make peace with nature" to imply that current economic arrangements are "a war against nature", a powerful way of calling for fundamental change. In sum, these statements are clear-tinted according to the ecosophy because they straightforwardly and directly call for a reduction in consumption by the wealthy.

A return to living within the boundaries of ecological limits requires not just quantitative reductions in consumption, but qualitative changes in what is consumed too. A key example is the shift towards plant-based food, which is necessary for the boundaries of climate change, freshwater use, land use, biosphere integrity, and biogeochemical flows such as nitrogen and phosphorus (Bunge et al. 2024; Hunnes 2021; Rockström et al. 2025; WWF 2020). Grant et al. (2025: 29) highlight the "importance of working to reduce growing demand for animal protein around the world – a shift which would bring profound health and biodiversity benefits, as well as climate benefits". In line with the ecosophy of wellbeing of all species, we can add to this the benefit of reducing the suffering of the many animals harmed directly or indirectly by the animal product industries. The issue of shifting away from animal-based towards plant-based products is mentioned in the discourse of the bioeconomy, and this is positive and to be welcomed. The following is an example:

> Global population growth by 2050 is estimated to lead to a 70% increase in food demand, which includes a twofold increase in world meat consumption. The Bioeconomy Strategy will contribute to meeting this challenge by developing the knowledge-base for a sustainable increase in primary production […] It will also encourage changes in production and consumption patterns and the development of healthier and more sustainable diets. (EC 2012: 9)

However, this extract is a very measured, very *rose-tinted*, reaction to the planetary emergency that would occur if meat consumption did actually double. Firstly, it accepts the twofold increase in world meat consumption as a "challenge" rather than as something which would cause immense harm to the ecosystems that life depends on – an environmental disaster or catastrophe perhaps. The first response to the challenge is a mental process, "develop a knowledge-base", as opposed to a material process of taking concrete and immediate action. The knowledge-base is for *increasing* production, even though current production far exceeds sustainable levels (Rockström et al. 2025). Ritchie and Roser (2024) describe how "More than three-quarters of global agricultural land [80 %] is used for livestock, despite meat and dairy making up a much smaller share of the world's protein and calories [16 %]". This means that a dramatic reduction in the production of animal-based products and a widespread transition to plant-based food could release large areas of land for feeding humans, for biodiversity, and (importantly for the bioeconomy) for bio-based products (Kozicka et al. 2023). The transition is mentioned in the extract but in mild terms as a "changes in production", and "more sustainable diets" rather

than being specific about exactly what changes are required (a shift to plant-based agriculture), what kind of diet is sustainable (a plant-rich one), and the scale of the changes that are necessary. Moreover, these changes are just "encouraged" rather than mandated through regulation or legislation.

Bioeconomy discourse does, occasionally, recognise that some farmers will have to change from animal-based agriculture to plant-based agriculture, but only expresses this indirectly with expressions like "help farmers […] diversify their income sources" (EC 2018: 10) and "reskill […] for a just transition" (EC 2022: 14). The expression "diversify their income sources" does not specify what kind of sources should be reduced and what kind of sources should be added in order to diversify. The word "transition" in the expression "reskill […] for a just transition" is a nominalisation of the underlying process "X transitions from Y to Z", where X is the Actor, Y is the Source Circumstance, and Z is the Goal Circumstance. Clearly in this context X is the farmer, Y is animal-based agriculture and Z is plant-based agriculture; however Y and Z are elided through the nominalisation.

In general, the discourse of the bioeconomy does (to its credit, according to the ecosophy) point out that predicted increases in meat production are problematic, and hints at changes in production and consumption being necessary. However, presumably under the influence of the agricultural lobby, avoids explicitly stating that the change needs to be an urgent and widespread transition away from animal agriculture towards plant-based production. The alternative documents are far clearer about this:

- We know that meat eating is one of the most damaging things we do […] Livestock farming alone, according to a recent paper in Nature Food, produces 20 % of the world's greenhouse gas emissions […] Most importantly, it uses more land than any other use. (Giuntoli et al. 2023: 31)
- Policymakers should prioritise a transformative shift toward nutritious and affordable plant-based diets, markedly reducing meat and dairy production […] The imperative shift away from livestock agriculture is crucial in addressing vulnerabilities in the global food system and countering climate change and restoring our ecosystems. (EU Bioeconomy Youth Ambassadors et al. 2024: 10)

The first extract uses the negative appraising item "damaging", which is explicitly applied to a specified form of consumption ("meat eating") and details the ecological harms it causes. The second extract uses positive appraising items "nutrition" and "affordable" and applies them to "plant-based diets", explicitly mentioning the type of diet. It uses the expression "shift away" while explicitly stating the Source Circumstance as "livestock agriculture" and the Goal Circumstance as "plant-based diets". The term "imperative" is a deontic adjective (Linden 2012) which expresses the duty to act, while "crucial" is an evaluative adjective which stresses its importance.

The intensifying adjective "transformational" vividly expresses the scale of the changes needed. While the first extract expresses the harm of animal product production, the second expresses the benefits of plant-based production, and both are direct and clear-tinted in their mode of expression.

4.3 Overstating the ability of technical and efficiency changes to solve ecological issues

Ahola-Launonen and Kurki (2022: 826) write of the "hope, hype and disillusionment" of the bioeconomy, describing how the discourse began optimistically – "the initial policies presented the bioeconomy as a universal solution that would enable the conversion of infinite biomasses to resources and energy", but in ways which have "generally been deemed highly unrealistic". As the discourse developed, it started to factor in some of the limitations but kept the overwhelming focus on technical and efficiency "solutions" rather than systemic political, social, cultural, or economic transformation. According to the ecosophy, this is over-optimistic because ecological limits have already been significantly transgressed, consumption is on a steep upward trajectory, there are large numbers of people in poverty whose needs must be met through increased consumption, and space must be made for other species and biodiversity to thrive. Technical and efficiency measures are essential, but the changes required are too large for them to be solutions in themselves.

Mittra and Zoukas (2020: 3) call the bioeconomy a "promissory economic regime built on the exploitation of old and new biological resources. What we mean by promissory is that much of its value is speculative; based on estimations of future potential rather than current reality". This promissory aspect of the discourse can be seen in examples such as the following:

- Circular urban development plans could translate into very significant economic and environmental gains. (EC 2018: 6)
- a sustainable and circular bioeconomy is key to achieve a greenhouse gas neutral Europe. (EC 2018: 9)
- Delivering a sustainable circular bioeconomy means that our economic prosperity and the health of our environment will mutually reinforce one another. (EC 2018: 16)
- Circular bioeconomy measures […] can [have] significant economic, social and environmental benefits. (EC 2018: 77)

These extracts associate a list of positive environmental outcomes with a circular economy – environmental gains, greenhouse gas neutrality, a healthy environment, and social and environmental benefits. These are amplified by the intensifiers

"very", "significant", and "key", although the modals "can" and "could" lower the modality somewhat to reduce full commitment.

The concept of circularity did not appear in the original 2012 strategy but emerged in a significant way with the 2018 updated strategy (EC 2018), where the term "circular" appeared 133 times. This may be in response to the original strategy being criticised as unrealistic. It then appears 129 times across the other two strategies. According to Reike et al. (2022), the idea of the circular economy consists of the principles of Refuse (avoiding unnecessary products), Rethink (design smarter products), Reduce (resource use and waste), Reuse, Repair, Refurbish, Remanufacture, Rebuild, Repurpose, Recycle, and Recover (energy or materials from waste). This aligns with the ecosophy since it contributes to staying within environmental limits, and all of these things have clear environmental benefits. However, the benefits of a circular economy have been accused of being exaggerated. Bocken et al. (2025: 92) describe the common narrative of the circular economy that "with the right innovation and ambition, organizations can regenerate ecosystems, eliminate pollution, and drive sustainable development – all while maintaining profitability", when in fact what is actually achievable is much more modest – "The hard truth about the circular economy – real change will take more than refillable bottles" as Pinkse (2025), puts it. Deutz (2023: 3) argues that the circular economy is essentially a "strategy to keep the capitalist economy on its tracks" since it promises that sustainability is achievable through technical means without needing social, political, or economic changes. Corvellec et al. (2022: 421) examine a large number of papers which critique the circular economy and conclude that the "circular economy is based on an ideological agenda [and] is far from being as promising as its advocates claim it to be".

The metaphor of a circle is somewhat misleading since it represents materials going round and round endlessly, when in fact materials such as paper and plastic degrade as they go around, and even those that do not degrade (e.g. metal and glass) require energy in the remanufacturing process. An alternative image would be a spiral, where materials get progressively less useful as they go around, with an electric pump attached to show external energy pushing the materials around the system. The definite article "the" in front of "circular economy" (e.g. in "the transition to the circular economy" [EC 2018: 10]) is also optimistic/unrealistic since it implies that the entire economy is circular, rather than the reality, which is that a subset of materials are reused, repurposed, remanufactured etc. within a much larger economy that is predicated on economic growth. Economic growth is, in fact, incompatible with a circular economy by definition, since a circular economy cannot grow without additional inputs entering the system, in which case it ceases to be circular. Overall, all aspects of the circular economy are positive from the perspective of the ecosophy of this article, but the rose-tinting occurs when circularity is optimistically

held up on its own as a solution to ecological issues without large scale social, political, and economic changes.

The positive presentation of the circular economy fits the general positive orientation of bioeconomy discourse. The following are the main positively valenced terms used across the four official bioeconomy documents, extracted with the assistance of the NRC (National Research Council) Word-Emotion Association Lexicon (Mohammed and Turney 2011):

> Advanced, Advantage, Ambitious, Attractive, Benefit, Breakthrough, Competitive, Development, Effective, Efficient, Enhance, Excellence, Growth, Improvement, Increase, Innovation, Modernisation, Opportunities, Optimisation, Productive, Progress, Promising, Prosperity, Renewal, Resilient, Revitalisation, Smart, Solutions, Strengthen, Strong, Success, Sustainable, Synergies

These terms are used with significantly higher frequency than negatively valenced words. For instance, across the four documents the word "sustainable" appears 662 times but "unsustainable" only 11 times; the word "solution" appears 130 times but "problem" just 15 times; the documents use "strong" 169 times but "weak" only 3 times; they use "grow" 158 times but never use "shrink"; and the word "increase" appears 300 times but "decrease" only 13 times [all including morphological variants such as strong and strength].

A high ratio of positively valenced terms can be a form of rose-tinting if it represents over-optimism about solutions while downplaying their limitations in the context of the scale of ecological destruction already underway. The following paragraph captures the optimism of the original 2012 strategy:

> A strong bioeconomy will help Europe to live within its limits. The sustainable production and exploitation of biological resources will allow the production of more from less, including from waste, while limiting negative impacts on the environment and reducing the heavy dependency on fossil resources, mitigating climate change and moving Europe towards a post-petroleum society. (EC 2012: 4)

The extract is expressed with high modality (a strong claim to truth), the modals being "will" rather than "might", or "may", although subtly hedged by the words "help", "limiting", "reducing", and "[moving] towards" which avoid specific commitment. There is a whole list of ecological benefits attributed to the bioeconomy, including the high aspiration of a 'post-petroleum society'. Importantly, the focus is on producing *more* "producing more from less", which is repeated later on in the document "the EU needs to produce «more with less»" (EC 2012: 10), the guillemet symbols representing this as a slogan. However, given that seven out of nine planetary boundaries have already been crossed (Sakschewski et al. 2025), it is optimistic to suggest that even more could be produced while achieving all the environmental

benefits listed. It would not be quite as effective as a slogan, but demand reduction and efficiency changes together could result in producing «less with much less» and have a more significant environmental impact.

The 2018 strategy updates the original strategy to be more realistic. It describes how the amount of biomass that can be sustainably harvested for the bioeconomy is severely limited – what it calls the "biomass gap". However, this does not stop the strategy from expressing over-optimism about technical solutions:

> A sustainable European bioeconomy is necessary to build a carbon neutral future in line with the Climate objectives of the Paris Agreement. For instance, in the construction sector engineered wood offers great environmental benefits as well as excellent economic opportunities. (EC 2018)

The expression "a carbon neutral future" is an extremely high target given that, at time of writing (2025), carbon emissions and coal use are at an all-time high and consumption is predicted to rise rapidly. The example which immediately follows this is on a modest scale – engineered wood – which is described with the strong intensifier "great" in "great environmental benefits", followed by the equally glowing "excellent" in terms of economic opportunities. Another high target is "contribute to plastic-free, healthy and productive European seas and oceans" (EC 2022: 98) and "contribute to restoring ecosystems, for instance achieving plastic-free seas and oceans" (EC 2018: 7). Bio-based products can be biodegradable, and if they replace plastic there could be a small reduction in future plastic added to the ocean, but "plastic-free seas" is a high target since it implies the removal of all the current plastic. The 2018 strategy is also upbeat about the controversial practice of burning living matter for energy (something which the 2025 strategy later rows back on):

> A sustainable bioeconomy is essential to the reduction of emissions in the European Energy sector. Bioenergy […] is expected to remain a key component. (EC 2018: 9)

Here the use of the terms "essential" and the intensifier "key" focus attention away from more sustainable pathways towards reducing energy emissions through alternative energy or, most importantly, through reducing energy demand. The strategy even goes as far as promising negative emissions in the following extract, with the high modality of "will":

> Sustainable primary production on land and sea underpins the overall sustainability of the bioeconomy and will provide "negative emissions" or carbon sinks, in line with the commitments of the Paris Agreement. (EC 2018: 6)

There are two issues with the term "sustainable primary production", and other terms like "sustainable bio-based products", "sustainable biomass", "sustainable

products", "sustainable agriculture", "sustainable chemicals", and "sustainable aviation fuels" that appear in the bioeconomy discourse. The first is a lack of specificity of what, exactly, makes these products or practices sustainable. In one case there is a definition, but it remains vague:

> 'Sustainable chemical production' is the use of alternative raw materials to produce chemical products. These alternative raw materials are different from traditional fossil-based ones. (EC 2018: 60)

In this case, "sustainable" is used to mean simply "not fossil-based", although biologically based materials can be ecologically destructive too, so further specification would be necessary to say exactly how sustainability is to be achieved. The second issue is with the lexical semantics of the pair of lexemes sustainable/ unsustainable. Theoretically, these are gradable antonyms since it is possible to use modifiers to intensify or diminish them along a spectrum – *highly* sustainable, *very* sustainable, *quite* sustainable, *quite* unsustainable, *very* unsustainable, or *extremely* unsustainable. However, within the discourse of the bioeconomy examined, modifiers like these are used in less than 10 % of the occurrences. Without modifiers, the lexemes behave as if they were complementary antonyms, a binary pair of either entirely sustainable or entirely unsustainable. The issue is that a term like "sustainable aviation fuel" or "sustainable chemicals" sounds as if the products have no negative impact on the environment. In bioeconomy discourse, the justification for sustainability is often that raw materials are from waste products or are from plants and trees whose replacements will sink carbon while growing. However, rather than being sustainable in an absolute sense, these products may just be relatively *more sustainable* than their alternatives. Fossil fuels are likely to be used for fertilisers, pesticides, transport and processing of biological materials, and land use changes can release carbon through deforestation. Waste products may require energy for processing and transport and are limited in scale, particularly if processes in general are made more efficient. A product like "sustainable aviation fuel" could more accurately be described using the antonyms in their graded sense as "less unsustainable aviation fuel", since it could be argued to still be unsustainable overall. The biggest danger is if an increase in flying is promoted on the excuse that the airline industry will have more money to invest in sustainable aviation fuel, an argument actually used by the airline industry promotion organisation Eurocontrol (2022), which states the following on their website: "the faster the industry grows the faster it will be able to decarbonise. 'If the business is healthy, airlines have more capabilities to invest in environmental-saving technologies'".

The term "fossil-free" is another expression which is over-optimistic, in a more direct way than the vaguer term "sustainable". An example of the use of the term is

"By 2040, sustainable bio-based materials […] are widely deployed in the EU. They provide fossil-free alternatives" (EC 2025: 3). This is rose-tinting because, as discussed above, fossil fuels can be used at every stage of the process of producing bio-based materials, from fertilisers growing the crops to the trucks transporting waste for processing. Rather than all-or-nothing terms like fossil-free, it would be more realistic, and clear-tinted to write of materials which consume *less* fossil fuel in their production.

5 Conclusions

Van Dijk (2013: 175) coined the term "ideological square" to describe how racist discourse highlights positive traits of the in-group and negative traits of the out-group, while downplaying the in-group's faults and the out-group's virtues. In this article, I proposed a new term *rose-tinting*, which I defined as *under-representation of the urgency and scale of ecological issues and over-optimism about the scale of changes needed to address them.* This also involves highlighting certain things and downplaying others. Rose-tinting exaggerates the benefits of technical and efficiency measures, downplays the scale of the ecological issues faced and the scale of measures needed to address them, and largely overlooks the suffering of those harmed by ecological destruction and the culpability of those causing it. I suggested that environmental policy documents tend towards rose-tinting because of the influence of political, corporate, and media pressure. To illustrate the linguistic mechanisms of rose-tinting, I analysed four European Commission bioeconomy strategy reports, alongside two documents which provided alternative visions. Table 3 summarises some of the linguistic features that were identified as contributing to rose-tinting.

Table 3 is not intended to be a list of features to avoid in environmental writing. All these features have their uses in various contexts. Rose-tinting is an overall pattern, where the features combine together to provide a cumulative downplaying of ecological issues or exaggeration of the benefits of efficiency and technological measures. It is for writers to be aware of the overall pattern of their communication and reduce features like these if they discover a cumulative rose-tinting that distracts attention away from the scale of social, political, and economic transformation necessary to deal with the scale of ecological issues.

Although the list of features was derived from analysing four bioeconomy strategy documents produced by the European Commission, this article does not come to any conclusion about the extent of rose-tinting across the discourse. As already mentioned, from the start the discourse was analysed as an ambivalent one, recognising that there are rose-tinted expressions and clear-tinted ones across the four documents. Ecolinguistic analysis of environmental discourse can, sometimes,

Table 3: Some linguistic features that can contribute to rose-tinting.

Feature	Explanation	Example
Modifier	Ecological concerns as the modifier rather than the head of a noun phrase	***green*** growth; ***sustainable*** growth
Bound morpheme	Biological issues as a bound morpheme rather than the free morpheme carrying the core lexical meaning	***Bio***economy
Economic framing	Dominance of economic framing over ecological framing	[trigger words such as] ***economic, growth***; ***competitiveness***; ***prosperity***; ***profit***; ***industry***
Vehicle metaphor	Vehicle metaphors applied primarily to the economy rather than to ecological issues	***driver*** for competitiveness; ***accelerate*** product authorisations; ***engines*** of growth
Verticality metaphor	Scaling *up* applied to economic issues rather than scaling *down* production/consumption or scaling up environmental action	market scale-***up***; scale ***up*** investment; scale ***up*** to industrial production; scale-***up*** financing
Ecosystem as metaphor	Use of "ecosystem" as a metaphor unrelated to sustaining life	processing ***ecosystems***; innovation ***ecosystems***; industrial ***ecosystems***
List placement	Placement of ecological issues last in a list	competitive and ***sustainable*** bioeconomy; economy, society and the ***environment***
Subordination	Placement of ecological issues in a subordinate clause (the logic of while)	advancing productivity ***while*** limiting environmental impacts; market expansion ***while*** ensuring sustainability
Appraisal patterns	Use of positive appraisal patterns to describe something negative for the environment	***Progress*** to achieve ***sustainable optimal*** exploitation of fish to ensure that all stocks will meet EU policy objectives seems too slow.
Hedging	Reducing facticity of ecological issues through hedging	Progress [towards sustainability] ***seems*** too slow.
Neutral terms	Use of terms which could be positive or negative in describing ecological problems and the devastation they cause	[climate] ***change, impacts, effects, issues, consequences, results, implications***
Mild negative valence	Use of terms which are only mildly negative to describe ecological destruction	***pressures***, ***adverse*** [impacts], ***risks***, ***trade-offs*** and ***challenges***
Solution framing	Over-focusing on modest "solutions" obscures representation of the severity of the problems being faced	***solutions, opportunities, or achievements*** [being more frequent than *problems*, *threats* or *setbacks*]
Intensifiers	Used to express over-optimism about efficiency/technological measures	contribute ***significantly*** to climate and environmental goals; ***very significant*** environmental gains
Mental processes	Use of mental processes to describe action on ecological issues rather than more active material processes	***focus on***; ***assess***; ***measure***; ***consider***; ***evaluate***; ***monitor***; ***investigate***

Table 3: (continued)

Feature	Explanation	Example
Unmarked adverbs and adjectives	Calling for something to become *more sustainable* avoids describing the current situation as unsustainable.	generating ***more sustainable*** products [vs less unsustainable]
Modifier "sustainable"	Using the adjective "sustainable" to modify something implicated in ecological destruction without specifying what would make it sustainable or imagining alternatives	***sustainable*** industrialisation; ***sustainable*** growth; ***sustainable*** technology; ***sustainable*** exploitation; ***sustainable*** development; ***sustainable*** consumption
Binaries	Use of gradable adjectives in binary ways	***sustainable/unsustainable*** [the first can imply that something is fully sustainable rather than mildly less unsustainable]
Compound terms	Exaggerating environmental benefits by compounding with the morpheme 'free'	***fossil fuel free; plastic-free***
Elision	Elision of Source Circumstance and Goal Circumstance [a failure to mention *from X to Y*]	***transition*** [without mentioning what is being transitioned away from or to], ***shift, change***
Metaphor of "Circular Economy"	Use of circularity metaphor can exaggerate efficiency solutions if the implication is that resources can circle indefinitely without degrading or requiring external inputs for reprocessing	***circular*** urban development; a sustainable and ***circular*** bioeconomy; action plan for the ***circular*** economy

be rather dismissive but it is important to point out that much of the material in the documents analysed clearly aligns with my ecosophy – we are "on the same side". Many statements were fully aligned with the ecosophy, but they were expressed mildly, cautiously, tentatively, indirectly, understatedly, or subtly, in ways which (according to the ecosophy) did not fully recognise the extent of the threat to the future of life. Equally, other statements described essential, useful, effective but (according to the ecosophy) ultimately modest measures in glowing terms with over-optimism about the extent that they can solve ecological problems without systemic change.

Rose-tinting could, in Vogelpohl (2023: 583) terms, make biodiversity documents "serve as instruments to stay on the path of modernization and industrial development already taken or envisaged, or, put differently, as strategies to avoid social–ecological transformation". The discourse is not uniform, however. Rose-tinting occurs to different extents in the different documents, and even within the same document. Häyry and Laihonen (2022: 525), for example, describe how the 2018 update to the

strategy (EC 2018) "opens up with mostly ecological and partly economic and social concerns, gradually forgets the ecological and social aspects, and concludes with economic actions […] for generating prosperity for some within the EU." When analysing an ambivalent discourse like this it is important to recognise positive, clear-tinted, aspects as well as pointing out the rose-tinting.

When policy-makers are writing documents, there are always choices to be made in terms of lexical items, metaphors, grammatical forms, and linguistic devices. These choices have important consequences in terms of shaping the "system" world (in Habermas's terms), and ultimately the system world will have an impact on the lifeworld and the future of life on the planet. As Herman and Chomsky (1988) point out, choices can be influenced by external political and corporate forces, either directly if those forces are consulted in the wording of the documents, or indirectly as policy-makers make choices to avoid what they call "flak" from those forces. The reason for developing the term "rose-tinting" and exemplifying it through analysis, is to help raise critical language awareness and promote a different kind of flak, the kind of flak which asks policy makers to recognise the scale of the ecological situation in the phrasing of policy documents, to be realistic about the limited role that technology and efficiency can play if consumption is rising exponentially, and to enact the bold systemic and political changes necessary to protect the future of life.

A critique of rose-tinting, and the specific linguistic devices it consists of, is useful in giving guidance on the kind of language which policymakers, environmental communicators, and activists can avoid. However, it is also important to give suggestions for what kind of language can be used instead. This is where PDA comes in, and the article briefly analysed two documents which gave alternative perspectives on the bioeconomy to discover some techniques for clear-tinting. The following are some initial suggestions arising from the analysis:

(a) Rather than just using the modifier "sustainable" (e.g. sustainable diets, sustainable growth, sustainable consumption) being specific about what "sustainable" means, e.g. plant-rich diets, degrowth, or reduced consumption.
(b) For expressions like "transition" or "shift", including the Source Circumstance and the Goal Circumstance (e.g. a shift from animal-based to plant-based agriculture)
(c) Using terms which imply that current consumption levels are too high (e.g., oversized economy, excess consumption); using terms which are specific in calling for a reduction (e.g. reduce, minimise, curb), and being explicit about who needs to reduce consumption (e.g. the wealthy)
(d) Using negative appraising items to draw attention to the impact of ecological destruction and the importance of taking action (e.g. devastating, damaging, breakdown, crisis, catastrophe, colonisation, injustice, apocalypse, collapse) while being careful not to over-state the case, i.e. not to stray into dark-tinting.

The criterion for identifying dark-tinting is whether the description of impact presents a more severe situation than is justified by the evidence underpinning the ecosophy.

(e) Specifically naming environmental harms (e.g. droughts, wildfires, storms, heatwaves)

(f) Concretely and vividly representing the victims of ecological destruction, both human and non-human, in ways which give them salience.

(g) Using narrative structures to link causes and consequences, actions and impacts, crimes and punishments, destruction and blame; explicitly naming those most responsible for ecological destruction and calling for them to face justice.

(h) Using deontic verbs, adjectives, and nouns to describe a duty to act (e.g. imperative, responsibility, necessity, should, must) and evaluative adjectives to stress importance (e.g. crucial, essential).

One of the key goals of ecolinguistics is to make a difference in the world, and the path to this is intervention in the discourses being analysed, either by resisting them in the case of destructive discourses, or, for ambivalent discourses like this one, working with those responsible for the discourse to help it become more clear-tinted. One objection that could be raised is whether clear-tinting is an effective environmental communication strategy. There are commentators who are concerned that if we clearly express the extent of ecological problems and what it will take to solve them it will lead to fear, paralysis, or passivity. That so long as people feel that solar power, recycling and electric cars will be enough to prevent the wave of ecological destruction coming our way they'll be more likely to carry on with their micro-actions, otherwise they might give up. This may be true, but we need so much more than micro-actions to come close to dealing with the scale of the issues we face. Clear-tinting, if communicated effectively, may make people start to take action at the level that it can make a large enough difference – demanding urgent and widespread systemic change.

I started this article by pointing out that environmental policy documents bring a particular world into being – a "system" world, which might be out of step with the lifeworld we actually live in and might end up causing great harm. We can consider what kind of system world a *fully* rose-tinted environmental discourse would bring into being. It would be a shiny world of opportunity for competitiveness, economic growth, profit, and wealth, even for the very richest individuals, corporations, or countries. Within this world there would be no "crises", "disasters", or "catastrophes", just "challenges" which can be overcome by technology and efficiency measures. There would be no need for changes to current social, cultural, political, or economic arrangements, no call for anyone to reduce their consumption. There would be no criminal, irresponsible, or greedy actors; no corporations, governments,

or political systems would be accused of jeopardising the future of life. The victims of ecological destruction would also be absent – there would be no explicit descriptions of people suffering injuries and death because of chemical contamination, or of millions of animals burning in climate-change induced wildfires. Animals and plants, where they are mentioned, would be erased through being framed as biological resources or ecosystem service providers, rather than beings living their own lives on the same planet where humans also live out our lives. In general, the language would follow George Orwell's (1946: 357) dictum that "political language has to consist largely of euphemism, question-begging and sheer cloudy vagueness" rather than concrete descriptions of what we face and what is necessary to deal with it.

Fortunately, the discourse of the bioeconomy discussed in this article is not fully rose-tinted like this. It is an ambivalent discourse, with rose-tinting and clear-tinting occurring to different extents across the documents analysed. If those responsible for the discourse, and wider ecological discourses, become aware of rose-tinting and clear-tinting strategies then the hope is that they will forge new discourses which are more realistic about the scale of ecological destruction, the impact on victims, about who is responsible for the destruction, and the scale of social and political changes necessary to address it. In sum, the environmental consideration within bioeconomy and other policy discourses is welcome and necessary for sustainability, but rose-tinting can mean that it is not sufficient. When it comes to the future of life on Earth, it is essential that environmental discourse is "sufficient".

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