

Framing Sustainability, Development, and Growth

Corpus-based Discourse Analysis of Narratives in *The Conversation*

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Abstract

The concept of sustainability is understood as a dynamic, context-specific process that emphasises the interconnectedness and balanced interaction of environmental protection, social equity, and economic development to ensure long-term viability and equity across time and space (Zappettini and Unerman 2016). Scholarly work within Corpora and Discourse Studies in recent years has sought to explore its discursive dimension, analysing how sustainability is conceptualised across domains, with a particular focus on corporate reporting practices (e.g., Fuoli and Beelitz 2024). However, more attention should be paid to how academics frame sustainability and related concepts such as development and growth when translating knowledge outside academic genres. For this reason, this paper investigates how sustainability and its related concepts of development and growth are framed (Entman 1993) within a specialised corpus of 234 research-based articles covering the 2011-2024 timespan from *The Conversation* – an independent, nonprofit news organisation that provides news and analysis co-produced by academics and journalists. A focus on forms of public-oriented research communication may enrich the understanding of how knowledge about sustainability is (re)contextualised across domains and communities, reproducing mainstream business-as-usual discourse or challenging it (Stibbe 2021). To do so, we employ a corpus-assisted approach to framing analysis, investigating how narratives of sustainability, development, and growth feature within climate discourse in research-based news. The analysis examines how the discursive framing of sustainability may reflect societal norms and ideologies, and more broadly, contribute to the construction of social realities that can contribute to reproducing ecocidal approaches or put forward alternative perspectives on socio-environmental assemblages.

1. Introduction¹

The concept of sustainability has gained a central yet deeply contested position in contemporary academic and public discourse. While discussing this topic is an urgent matter, the very concept of sustainability remains fuzzy and vague due to its complex nature. Ever since the so-called

¹ Although this paper is the product of continuous co-operative research and collaboration, Lorenzo Zannini is responsible for writing parts 3, 5 and Martina Russo is responsible for parts 1, 2 and 4.

Brundtland Report (1987) famously defined sustainable development as “the capacity to meet present needs without compromising the ability of future generations to meet their own” (Brundtland 1987, 10), sustainability has been associated with three interrelated dimensions: environmental protection, social equity, and economic development. This multidimensional model has provided a foundational vocabulary for policies, research, and public debate in relation to sustainability. However, it also amplifies complexities, hiding profound tensions among its components and resting on assumptions that are far from ideologically neutral.

Despite being a highly polysemous and negotiable concept whose interpretation varies across institutional contexts, disciplines, and socio-political agendas, sustainability is often invoked as a self-evident notion (Krieg and Toivanen 2021). Recent scholarship stresses that its apparent inclusivity renders it vulnerable to semantic stretching, strategic appropriation, and ideological instrumentalisation, particularly in contexts where economic and financial discourses dominate (Zappettini and Unerman 2016; Christen and Schmidt 2012). Building on this critique, Horton and Horton (2019) urge a more radical reframing of sustainability, that “has to be redefined – meeting the needs of humanity both now and in the future while respecting the existence of the other species inhabiting planet Earth” (2019, 90). The authors’ standpoint foregrounds reciprocity, ecological interdependence, and a biocentric ethic that decentres human exceptionalism. Their proposal reflects a broader shift in sustainability research towards models that emphasise planetary boundaries, relational ontologies, and the intrinsic value of more-than-human life. This perspective challenges the tendency, common in policy and corporate discourse, to treat sustainability primarily as a managerial, technocratic endeavour concerned with mitigating harm while maintaining existing economic trajectories. Instead, Horton and Horton (2019) align with ecological scholarship that regards sustainability as a transformative paradigm demanding structural shifts in socio-economic systems, consumption patterns, and political institutions (Stibbe 2021; Purvis, Mao and Robinson 2019; Hopwood, Mellor and O’Brien 2005). Yet despite the growing influence of such ecological perspectives, the term sustainability continues to function as a conceptual battleground in which competing visions of social futures are articulated and contested.

From a discourse-analytic standpoint, sustainability can be understood as a semiotic resource that shapes, and is shaped by, broader socio-cultural imaginaries. In ecolinguistics, Stibbe theorises these imaginaries as “stories we live by” (2021, 2): culturally shared narratives that shape how societies understand their relationships with the natural world, conceptualise responsibility, and envisage futures. These stories have linguistic manifestations embedded in texts and they can have ideational and ideological consequences. When sustainability is framed as efficiency, innovation, and competitiveness, particular actors and systems (such as corporations, markets, and technocratic governance) are positioned as central agents of change,

while alternative value systems emphasising ecological reciprocity, degrowth, or socio-environmental justice may be marginalised. In this sense, sustainability discourse does not simply communicate facts; it plays a constitutive role in shaping public understandings of environmental crises and in legitimising or contesting dominant socio-economic realities.

Despite this, research on sustainability discourse has mostly focused on genres such as corporate (Del Gaudio 2024; Dahl 2022; Lischinsky and Sjölander 2014; Alexander 2009) and policy (Penz 2022; Poole and Hayes 2022; Harris, et al. 2013) discourse. These studies are essential but reveal only part of the discursive landscape. Far less attention has been devoted to how academics themselves frame sustainability outside strictly academic settings, particularly in hybrid forms of communication where scholarship intersects with journalism. This gap is significant for at least two reasons. First, expert voices carry considerable epistemic legitimacy and therefore exert substantial influence on how complex scientific and socio-environmental issues are introduced and contextualised for the public. Second, when experts communicate through public-facing platforms, their discourse undergoes processes of recontextualisation, simplification, and narrative shaping that may amplify, dilute, or transform the meanings circulating in academic research. As Hyland and Jiang (2019) argue, expert-to-public communication involves not only the engagement and the transfer of knowledge but also the negotiation of stance, voice, and credibility within a media environment structured by news values, accessibility, and audience expectations.

Research-based news outlets are especially relevant in this regard. Halfway between journalism and academia, *The Conversation* produces a hybrid genre in which academics author articles that are subsequently edited by journalists to enhance relevance, clarity, and public reach. Such platforms play a prominent role in climate and sustainability communication, functioning as sites for the popularisation of scientific knowledge and arenas where public understandings of environmental issues are shaped and contested (Zannini and Curry 2025; Curry and Brookes 2025).

Understanding how sustainability and related concepts of development and growth are framed in research-based news is, therefore, essential for assessing how academic knowledge shapes ecological imaginaries in the public sphere. The ways in which sustainability, development, and growth are represented remain central to global debates on the climate crisis and socio-ecological transformation. Development and growth have been particularly critiqued for their historical entanglement with Eurocentric and neoliberal notions of progress that privilege Western epistemologies and marginalise alternative worldviews (Mignolo 2011; Sachs 2010). These dominant models have also been shown to rely on extractivist logics that undermine ecological viability and generate enduring socio-environmental conflicts (Martínez-Alier, et al. 2010), while growth-oriented paradigms more broadly have been problematised for

their incompatibility with planetary limits (Meadows, et al. 1972). Whether scholars challenge or reproduce these narratives when communicating to general audiences is thus a crucial question for both sustainability scholarship and science communication research.

This paper addresses this gap by investigating the discursive construction of sustainability in public-oriented research communication, contributing to a deeper understanding of how knowledge circulates across domains, how environmental imaginaries are shaped, and how academic voices participate in negotiating the terms of socio-ecological futures.

2. Theoretical framework

The theoretical framework adopted in this study brings together sustainability discourse, ecolinguistics, and framing theory within a multidisciplinary and critically oriented perspective, highlighting the concept's contested, ideologically charged, and context-dependent nature.

2.1 *Sustainability discourse*

More than a mere descriptor of socio-ecological practices, sustainability can be conceptualised as a discursive construct shaped through the interaction of knowledge systems, institutional priorities, and culturally embedded imaginaries. Its semantic mobility derives from its role as both a universal policy imperative and a persistent site of ideological contestation. As Krieg and Toivanen (2021, 3) observe, sustainability functions as an “analogue for how concepts circulate apart from contexts,” taking on different meanings as it moves across disciplinary fields, political institutions, and social communities, and can only be understood when situated within the socio-historical, epistemic, and geopolitical conditions that shape its articulation. This contextual sensitivity is perhaps most visible in Zappettini and Unerman's (2016) analysis of integrated reporting, where sustainability is “mixed” and semantically “bent” to foreground financial viability and shareholder value, illustrating how dominant economic discourses can colonise and reshape its meaning, transforming it from a potential catalyst for systemic ecological critique into a legitimising resource for existing socio-economic arrangements. As Christen and Schmidt (2012) and Clingerman and colleagues (2013) further demonstrate, this susceptibility to appropriation is inseparable from the concept's constitutive indeterminacy: its meanings are always mediated by cultural, historical, and linguistic frames that render certain dimensions – ecological constraints, justice, transformation – selectively salient or invisible depending on ideological commitments. In this sense, the field of Ecological Discourse Analysis (EDA) offers a useful theoretical reference. As Song et al.'s (2025) systematic review demonstrates, EDA examines not only the linguistic encoding of ecological phenomena but also the ecological implications of discourse, analysing how language shapes relationships between

humans, other species, and ecosystems. Within this tradition, the Handbook of Sustainability Literacy (Stibbe 2009) collects investigations on how certain ideologies materialise as skills, dispositions, and cultural practices necessary for navigating socio-ecological change, emphasising relational thinking, systems awareness, and ethical reflection as preconditions for sustainability-oriented action. This aligns with Horton and Horton's (2019) call for a paradigmatic shift away from sustainability framed as managerial optimisation towards a recognition of humanity's embeddedness in planetary life-support systems, what they describe as "living in harmony with life on Earth" (2019, 90). Their contribution is crucial because it highlights how dominant interpretations of sustainability often perpetuate anthropocentric, control-oriented worldviews that contributed to the ecological crisis in the first place.

A critical perspective is equally essential for analysing how sustainability discourse intersects with corporate and policy narratives. Ahmed and Khalidi's (2019) critical discourse analysis of sustainable development reveals how the "business case for sustainability" has become a dominant framing that marginalises discourses prioritising ecological integrity or social wellbeing. They show that sustainability is frequently constructed as compatible with existing economic models, thus diluting its transformative potential and legitimising business-as-usual trajectories. This insight is central to understanding sustainability discourse in hybrid expert-public communication: when academics write for media platforms, their arguments may be partially recontextualised to align with dominant news values or normative expectations regarding economic rationality and innovation. Moreover, sustainability as a linguistic and ideological construct remains closely tied to broader developmental imaginaries. As Niceforo (2024) emphasises, terminology such as "growth," "progress," and "development" carries historically traditional meanings that naturalise specific socio-economic pathways, often aligned with Western modernity. Analysing how such lexical and conceptual choices are used by expert authors is thus indispensable for revealing the implicit assumptions and ideological commitments embedded in public-facing academic discourse.

These strands of scholarship support a theoretical framework that treats sustainability as a dynamic, contested discursive field shaped by ideological tensions and diverse institutional power, providing analytical tools for examining how expert-authored public communication both reproduces and reconfigures the meanings of sustainability, development, and growth and their implications for socio-ecological futures.

2.2 Ecolinguistics

Ecolinguistics provides a critical lens for examining the ideological work performed by sustainability discourse. Rooted in the broader linguistic turn in environmental studies, the field investigates

how humans construe and instantiate life-sustaining ecosystems in and through language. At a time when a human-inflicted climate crisis has brought ecosystems to the brink of the sixth mass extinction, this discipline and its principles represent a fundamental area of theoretical and applied research both for academic communities and for society at large. (Bortoluzzi 2026, 1)

As such, ecolinguistics positions language not merely as a vehicle for describing environmental conditions but as an active agent that shapes ecological imaginaries, mediates value systems, and legitimises or contests socio-ecological arrangements.

Stibbe's notion of the "stories we live by" (2021, 2) is foundational in this context. These stories – structured, recurrent patterns of meaning that surface in linguistic forms such as ideologies, frames, metaphors, evaluations, identities, and erasures (Stibbe 2021, 1-18) – organise how individuals and communities conceptualise nature, assign value to ecological relations, and envision possible futures. Crucially, these underlying narrative structures are not neutral: they may reproduce exploitative orientations (e.g. consumers as rational economic actors, ecosystems as extractable resources) or cultivate ecocentric worldviews grounded in mutuality, care, and interdependence. The ecolinguistic task, therefore, involves identifying, evaluating, and, where necessary, resisting destructive stories while promoting alternative narratives aligned with ecological flourishing. Therefore, in analysing sustainability discourse, an ecolinguistic approach allows attention to the implicit, hidden values and assumptions embedded in defining, explaining and proposing solutions related to sustainability. It becomes possible to identify whether discourses reproduce anthropocentric, technocratic, or growth-oriented conceptualisations, or whether they open space for more radical reimaginations of socio-ecological relations. Such analysis is even more crucial in public-facing genres and formats such as public-oriented research communication and research-based news. These texts operate simultaneously as conveyors of scientific information and as mediators that reshape academic knowledge into culturally legible narratives (Curry 2024). Through processes of recontextualisation, simplification, and framing, research-based news articles not only report ecological findings but also construct broader cultural imaginaries of environmental change, responsibility, and possibility. In doing so, they participate in the circulation of narratives that inform public reasoning, emotional response, and political will.

2.3 Framing theory

The concept of framing denotes a series of conceptual and theoretical standpoints and analytical frameworks developed at the intersection of sociology and communication studies, on the one hand, and cognitive psychology, on the other (Sullivan 2023). Framing is widely defined as the way speakers organise experience, build realities, and eventually communicate them in texts

and talk (Entman 1993; Goffman 1986). However, the multifaceted origins of framing theory have led to a series of conceptual and analytical ruptures, earning it a reputation as a fractured paradigm (Entman 1993). For instance, Van Dijk (2023) argues that its conceptual vagueness, lack of interdisciplinary integration and inability to provide novel insights in social movement studies make framing analysis irrelevant if it is not operationalised rigorously. Similarly, Guenther et al. (2024) discuss framing as a way into the whole communication process thanks to its bridging potential that connects textual meaning-making, communicator intentions, audience interpretations, and broader cultural narratives, highlighting the centrality of frames in mediating the social life of climate discourse. However, the authors argue that studies in climate change communication overwhelmingly focus on frame content, disregarding the context of frame production and considering only a handful of communicators and journalists. In so doing, they miss the opportunity to provide a broad-ranging and relevant account of how frames operate across texts, discourses and communicative contexts. Acknowledging these criticisms, this research will present its methodological standpoint in detail and account for the frame in its context of production.

Moreover, research on the framing of environmental issues demonstrates that investigating how sustainability is framed across discursive domains has substantial implications for public perception and policymaking. Certain frames (such as economic opportunity, risk management, or moral responsibility) activate distinct cognitive schemas that can amplify, redirect, or neutralise public engagement. For instance, Lakoff (2010) shows that environmental communication frequently fails not because of insufficient information but because of the dominance of frames that reinforce anthropocentric or market-centred worldviews. Conversely, frames emphasising ecological interconnectedness, collective responsibility, or justice can foster more critical and transformative imaginaries.

For the scope of this research, integrating framing theory and ecolinguistics within the investigation of sustainability discourse in public-oriented research communication enables a deeper analysis of how linguistic constructions intersect with cultural narratives to shape sustainability imaginaries. Framing identifies what is made salient and how meaning is structured, while ecolinguistics interrogates the ecological and ideological implications of those choices. Applied to research-based news, this combined perspective reveals not only how experts define sustainability and its related concepts but also how these definitions align with or challenge dominant socio-economic paradigms. For this reason, we take Stibbe's (2021) view of framing as a discursive device that not only allows to describe certain aspects of reality but also actively reproduces or challenges the stories we live by, underpinning unequal and ecologically unsustainable narratives that shape social understanding of the relationship between the social and the natural.

Taken together, these three theoretical strands inform the analytical procedure of this study in distinct but complementary ways. Sustainability discourse scholarship establishes why the concepts of sustainability, development, and growth are analytically productive entry points, given their documented susceptibility to semantic mobility, ideological bending, and recontextualisation across institutional and social domains. Ecolinguistics allows the analysis to move beyond description and assess whether the framings identified reproduce or contest ecologically destructive narratives. Framing theory provides the operational categories through which actual linguistic manifestations are systematically coded and interpreted. The integration of these three strands means that the corpus-assisted analysis is not merely a frequency exercise but a critically oriented investigation into how public-oriented research communication, within the constraints of a hybrid explanatory genre, constructs, naturalises, or challenges dominant understandings of socio-ecological futures.

3. Data and method

3.1 Data

This research is based on a framing analysis of the *Sustainability Corpus in The Conversation* (SCTC), a corpus of research-based news articles published in the English language editions of *The Conversation*. The SCTC is a subcorpus derived from *The Conversation Corpus of Climate Discourses in English* (CDE; Curry 2024) and contains all the texts in the CDE with tags related to sustainability (e.g. sustainability, food sustainability; sustainable tourism, sustainability reporting) in the UK, US, Australia, Canada (English) and Global editions of *The Conversation*. The corpus is accompanied by metadata including author names and affiliations, date, year, and region of publication, as well as the thematic categories and tags used by *The Conversation* for indexing articles. To reduce noise in the corpus, only the body and title of each article were kept, and advertisements and comments were excluded. In sum, the SCTC is a specialised corpus containing the whole catalogue of articles on sustainability published in *The Conversation* between its foundation in 2011 and January 2024. Table 1 presents a summary of the corpus when analysed with Sketch Engine (Kilgariff, et al. 2014), a widely used corpus linguistics software for the exploration of large textual datasets. It provides tools for generating frequency lists, keyword analyses, concordances, and collocation patterns. In this study, it was primarily employed to extract frequency and keyword lists, enabling the identification of salient lexical items and patterns that informed the subsequent framing analysis.

Corpus Data	SCTC
Tokens	243,489
Blogs	234
Authors	348
Affiliations	174
Dates	174
Years	14
Regions	5
Themes	19
Topics	1102
Translated Texts	2

Tab. 1: The Sustainability Corpus in *The Conversation*

3.2 Analytical approach

3.2.1 Keyword analysis

To examine the discourse of sustainability in the SCTC, we first conducted a keyword analysis. Keywords are defined as items that occur more frequently in a target corpus when compared to a reference corpus and serve as a gateway to understanding the “aboutness” of a corpus (Scott 1997). The keyword analysis was performed using Sketch Engine (Kilgarriff, et al. 2014) and further refined with a custom-built Excel script. Since we aimed to explore the distinctive features of sustainability discourse in *The Conversation*, we adopted the remainder approach and used the rest of the CDE (Curry 2024) as the reference corpus. To organise the Sketch Engine output and retain only highly significant and distinctive keywords, we implemented a three-step process. First, keywords were filtered using Loglikelihood (LL) ($\alpha=0.0001$), adjusted with the Bonferroni correction. LL enabled us to retain only keywords that occurred significantly more frequently in the target corpus (Brezina 2018). However, LL does not indicate the magnitude of this difference. Therefore, we complemented LL with two effect-size measures to assess the size of the frequency difference between the target and reference corpora. Hence, the second step involved calculating the Log Ratio (Hardie 2012). Log Ratio estimates the size of frequency differences based on relative frequency expressed as multiplicative factors, where a Log Ratio of 1 signifies that an item in the target corpus occurs twice as often as in the reference corpus. Only keywords with a Log Ratio above average were kept after this step. Finally, we calculated %DIFF (Gabrielatos 2018), which quantifies the magnitude of differences in percentage terms and offers a stable, reproducible estimate. As with Log Ratio, only keywords with an above-average %DIFF were retained.

This process resulted in a manageable list of highly significant and highly distinctive keywords (n. 20) that characterise the discourse of sustainability in *The Conversation*. Table 2 shows the keywords and the relevant matrices.

Keyword	Freq. (focus)	PTW	Freq. (reference)	PTW	LL	LR	%DIFF
Sustainability	526	2.16026186	648	0.09318812	1992.25747	3.14336447	91.7292932
Sustainable	631	2.59149284	1535	0.22074655	1765.63492	2.46297416	84.3010127
Products	182	0.74746703	879	0.12640796	320.601615	1.77717574	71.0695554
Goals	179	0.73514615	972	0.13978218	284.393181	1.65998395	68.0471698
Consumption	198	0.81317842	1237	0.17789152	274.482214	1.51977661	64.1011166
Business	249	1.02263347	1570	0.22577986	341.920351	1.51057595	63.8293094
Waste	166	0.68175564	1047	0.15056784	227.871719	1.51025753	63.8198739
Agriculture	161	0.66122084	1398	0.20104474	150.80383	1.19056039	53.3682551
Development	317	1.30190686	2804	0.40323996	289.352572	1.17205348	52.7031982
Companies	264	1.08423789	2370	0.34082692	235.966912	1.15725782	52.1668179
Growth	309	1.26905117	2851	0.40999897	265.431641	1.12987014	51.1629866
Urban	178	0.73103918	1684	0.24217407	147.2957	1.10481031	50.2320654
Cities	246	1.01031258	2421	0.34816117	191.540748	1.06534953	48.742304
Food	404	1.65921253	4324	0.62182937	273.819473	0.98143265	45.4784787
Green	251	1.03084739	2704	0.38885907	168.202634	0.97491945	45.2197925
Social	266	1.09245182	3111	0.44738927	153.272232	0.89275076	41.8915015
Environmental	474	1.94669985	5682	0.81712176	260.214636	0.86810271	40.8701517
Economy	199	0.81728538	2435	0.3501745	104.797595	0.84755674	40.0108725
Production	201	0.8254993	2506	0.36038492	101.809072	0.82881573	39.2208926
Economic	315	1.29369294	3955	0.56876392	157.19951	0.82179071	38.9232652

Tab. 2: Final keyword list

To organise the keywords and inform the research design for this paper, keywords were inductively categorised into seven thematic categories as summarised in Table 3. For the purpose of this paper, only keywords in the “concepts” category were considered for the framing analysis.

Theme	Keywords
Concepts	Sustainability, development, growth
Attributes	Sustainable, urban, green, social, environmental, economic
Outcomes	Products, waste, food
Measures	Goals
Activities	Business, agriculture, economy, production, consumption
Actors	Companies
Places	Cities

Tab. 3: Thematic coding

3.2.2 Framing analysis

For the aim of this study, we adopt a critical perspective on framing analysis that both acknowledges its limits and exploits the possibilities afforded by this approach. In particular, we take a two-layer approach to framing analysis to investigate the discursive construction of

the keywords, namely sustainability (n=526), development (n=317) and growth (n=309). First, a sample of extended concordance lines using a 95% confidence interval was drawn. Then, a pilot study was conducted on a 20% sample to develop and refine the analytical categories for the study. On this basis, the full sample was analysed.

The first step of the analysis involved a structured, top-down process (Gillings and Mautner 2023) in which concordance lines were tagged with *a priori*-defined framing activities. The concept of framing activities refers to Entman's (1993) discussion of the role of framing in texts and discourse. Entman (1993) argues that frames “*promote a particular problem definition, causal interpretation, moral evaluation and/or treatment recommendation* for the item described” (emphasis in the original, 1993, 52) through patterns of selection and salience. For this work, these categories were redefined based on Curry and Brookes' (2025) framing analysis of the climate-health poly-crisis in *The Conversation*. Specifically, the authors found that three core framing activities were performed in research-based news: defining and contextualising, representing causes and effects, and proposing solutions.

The second step involved a structured, bottom-up approach (Gillings and Mautner 2023) based on developing categories emerging from the thematic (Guenther, et al. 2024) and semantic (Sullivan 2023) characteristics of the co-text surrounding each keyword. Bottom-up categories were developed during the pilot phase of the analysis and then refined and applied recursively throughout the analysis of the full sample. Given the highly interpretative nature of this coding, both authors analysed the full samples, and all final decisions were based on extensive consultation and consensus (Stemler 2004). Table 4 summarises the sample analysed.

Keyword	Total	Performing Function	%
Sustainability	222	147	66
Development	175	113	64
Growth	175	145	83

Tab. 4: Sample analysed

4. Results

Adapting Entman's model (1993), the analysis examines how expert-authored research-based news articles frame sustainability, development, and growth through three core functions. The table below shows how each concept is framed across the three functions²:

- Growth is mostly defined and contextualised (51% of meaningful occurrences) and frequently linked to causes and effects (34%) but is rarely presented as a solution (13%).

² Due to space constraints, only a limited number of illustrative excerpts are presented in this paper. These examples are selected as representative of the broader patterns identified in the dataset and serve to exemplify the dominant framings discussed in the analysis.

This suggests it is mainly discussed as a concept to explain or problematise, rather than to resolve issues.

- Sustainability is relatively balanced across all three functions (40%/31%/29%), indicating it is both defined, explained, and used to propose solutions.
- Development is less defined (38%) and less tied to causality (27%), but is strongly solution-oriented (34%), meaning it is primarily framed as a pathway for action or intervention.

	Sustainability	Development	Growth
Defining and Contextualising	40%	38%	51%
Representing Causes and Effects	31%	27%	34%
Proposing Solutions	29%	34%	13%

Tab. 5: Summary of the framing activities

4.1 Defining and contextualising

4.1.1 Sustainability

As for the defining and contextualising function, sustainability is predominantly framed as a socio-economic challenge, explicitly tied to questions of justice, equity, and intergenerational responsibility (20 cases). These framings foreground sustainability as a complex condition requiring systemic attention to inequalities within and across societies, in instances such as:

- (1) [...] What measures would you recommend governments, and relevant institutions take to allow women to play their critical role in meeting the many challenges associated with climate change? The vulnerable are often the most exposed to climate change and, in many societies, women are among the vulnerable groups. The IPCC found in its special report on managing the risks of extreme events and disasters to advance climate change adaptation that social, economic and environmental sustainability can be enhanced by disaster risk management and adaptation approaches. A prerequisite for **sustainability** in the context of climate change is addressing the underlying causes of vulnerability, including the structural inequalities that create and sustain poverty and constrain access to resources. [...]. (fyK2dT)

Here, sustainability is represented as a condition fundamentally dependent on social structures. The formulation “a prerequisite for sustainability [...] is addressing the underlying causes of vulnerability” constructs sustainability as contingent upon prior socio-political transformation, rather than as an outcome achievable through isolated environmental measures. This frame

reflects the dominant pattern observed in the dataset, whereby sustainability is primarily associated with questions of equity and justice. The lexical choice “prerequisite” is particularly salient, as it establishes a hierarchical relationship in which social justice functions as a foundational condition for sustainability, thereby positioning structural inequality as central to sustainability discourse.

A second major frame positions sustainability as a business problem or opportunity (12 cases), highlighting the central role attributed to markets, corporate practices, and innovation, as in:

- (2) there is little attempt to draw out the implications for business. It appears that each of the parties operate on a jaundiced view of business leaders, which research suggests is very much out of touch. In their 2012 annual worldwide survey of business managers' attitudes to sustainability, MIT Sloan Management Review and the Boston Consulting Group reported that 70% said sustainability was permanently on their management agenda and 33% thought that it contributed to profitability. In 2013 they found that nearly 50% of companies changed their business model as a result of sustainability opportunities – a 20% jump from 2012. Sixty per cent of those that had changed their business model say they have added profit from sustainability. The report also suggests that worldwide, Australian and New Zealand companies are those most likely to profit from a change of business model towards sustainability. The concern is where our politicians get their information on major trends affecting Australian business. (6WKQX8)

In example 2, sustainability is defined and contextualised primarily as a business opportunity, framed in terms of profitability, innovation, and strategic adaptation. By drawing on authoritative business surveys, the text embeds sustainability within managerial and market-oriented rationalities, presenting it as economically advantageous rather than environmentally constraining. The repeated emphasis on business model change and added profit normalises sustainability as compatible with existing economic trajectories. Ecological values are marginalised, appearing only peripherally and without elaboration. In Entman's terms (1993), this frame selectively defines sustainability in economic terms, foregrounding market benefits while backgrounding environmental and ethical dimensions.

Governance-related definitions (9 cases) emphasise institutional responsibility and the need for policy coordination, while emotional/value-laden definitions (7 cases) highlight sustainability as an ethical or moral imperative, as in the case of:

- (3) [...] This gives them a sense of empowerment rather than feeling overwhelmed and helpless, which leads to despair and anxiety. Sustainability education for children can best be approached by helping them understand their place in the web of life, which supports their existence in terms of clean air and water, food and clothes, and other necessities for a decent life. It's about fostering a sense of belonging, respect and care for all living creatures, and an understanding of how to handle material resources in a limited world. Sustainability education is about fostering the world-view that we are in this together. Only through our common actions can despair be turned into hope. Remember the Daily Telegraph's 2013 front page headline "Kick this mob out"? Although some could argue that Labor after the Rudd-Gillard years was in a deep mess and not fit to govern, such a headline was deeply partisan and far from neutral election campaign coverage. (YAqg3p)

In 3, lexical choices such as "empowerment," "feeling," "overwhelmed," "anxiety," "belonging," "hope" and "care" foreground affective responses and collective identity, constructing sustainability as a shared moral project. The metaphor of the "web of life" situates humans relationally within ecological systems, reinforcing an ecocentric worldview. This framing defines sustainability by selecting moral values and emotional engagement as salient features. As such, sustainability is contextualised as a matter of shared responsibility and ethical orientation.

Other definitional frames include education gaps (6 cases), environmental issues (4 cases), and economic considerations (3 cases). Overall, sustainability emerges as a porous and multidimensional term whose semantic borders overlap extensively with governance, business, and socio-economic domains. This prevalence of socio-economic and governance framings might result from *The Conversation's* attempt to link expert knowledge with societal relevance and policy applicability, suggesting that genre constraints partly shape how sustainability is publicly defined even by ecologically committed researchers.

4.1.2 Development

Development is defined in similarly heterogeneous ways. It is most frequently framed as a socio-economic challenge involving justice and equity (14 cases). In these frames, development is constructed as an inherently normative project aimed at addressing structural disparities within and between societies. This emphasis positions development as closely aligned with ethical responsibility and social transformation, as illustrated in the following example:

- (4) [...] The UN's Sustainable Development Goal 4.7 target states that by 2030: All learners acquire knowledge and skills needed to promote sustainable development,

including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development. The more we learn about sustainability, the clearer it is that many of our social and environmental challenges, including poverty, gender equality, climate change and quality education are interconnected – as exemplified by the UN's framework of 17 SDGs. And despite the growth in commitment to sustainability from educational institutions, student bodies and individual academics, there is a widespread attitude-behaviour gap when it comes to the sector as a whole. (dy7Wd2)

In this example, by linking development to “poverty,” “education,” “gender equality,” and “global responsibility,” the text constructs it as a systemic condition shaped by social and institutional structures. The reference to the UN SDGs legitimises this frame and situates development within a global justice agenda. Drawing on Entman's model (1993), development is defined through the selective foregrounding of social equity and collective responsibility.

Governance issues appear equally salient (14 cases), reflecting persistent concerns about policy shortcomings, decision-making failures, and institutional inertia. Development also addresses economic (6 cases), value-laden (4 cases), environmental (3 cases), and educational gaps (2 cases). This distribution suggests that development operates within a broad and overlapping semantic field that closely mirrors that of sustainability, with no single dimension clearly delimiting the concept. A particularly salient feature of the discourse is the recurrent characterisation of development as a necessary yet insufficiently specified objective. Expert-authored texts frequently engage in metadiscursive reflection, explicitly signalling uncertainty about what “sustainable development” entails in practical terms and how it can be effectively operationalised across contexts. This metadiscursive uncertainty may reflect the tension academic authors face when translating conceptually contested terms for general audiences, where simplification risks are managed through explicit qualification rather than definitional closure.

4.1.3 Growth

Growth displays the strongest definitional concentration in the dataset, with approximately 51% of occurrences functioning explicitly to define and contextualise the concept. Unlike sustainability and development, which are framed through a wide dispersion of social, institutional, and ethical meanings, growth is more narrowly and consistently constructed as a problematic organising principle of contemporary economies. Both are frequently framed as

socio-economic challenges linked to justice and equity (34 cases). However, they diverge in their representation as economic issues (21 cases), a pattern that contrasts with the framing observed for sustainability and development. An example is:

- (5) If the global economy then grows by 3% to the end of the century, it will be 60 times larger than now. The existing economy is already environmentally unsustainable. It is utterly implausible to think we can “decouple” economic growth from environmental impact so significantly, especially since recent decades of extraordinary technological advancement have only increased our impacts on the planet, not reduced them. Moreover, if you asked politicians whether they’d rather have 4% growth than 3%, they’d all say yes. This makes the growth trajectory outlined above all the more absurd. Others have shown why limitless growth is a recipe for disaster. I’ve argued that living in a degrowth economy would actually increase well-being, both socially and environmentally. (Dhazww)

In this example, growth is defined and contextualised through a strongly critical economic frame that foregrounds its structural unsustainability. Quantitative extrapolation (“60 times larger than now”) is used to render the logic of continued growth implausible, while the rejection of decoupling explicitly challenges a central assumption of mainstream sustainability discourse. Technological progress, often framed as a solution, is recontextualised here as exacerbating environmental harm rather than mitigating it. Political commitment to higher growth rates is portrayed as ideologically entrenched, reinforcing governance lock-in. The text defines growth by selecting economic scale, political preference, and ecological limits as salient features, constructing growth itself as the problem and positioning degrowth as a viable alternative grounded in social and environmental well-being.

Governance-related framings are also prominent (12 cases), while value-laden definitions occur less frequently (5 cases), and explicitly environmental framings remain marginal (2 cases). Overall, this distribution indicates that growth is discursively constructed as a structural source of inequality and systemic risk, rather than as a neutral or inherently desirable objective. That growth receives the most consistent critical framing of the three concepts suggests that authors in *The Conversation* retain a degree of disciplinary critical distance that resists the normalising pressures of journalistic discourse, at least at the definitional level.

4.2 Representing causes and effects

4.2.1 Sustainability

When representing causes and effects, sustainability is predominantly framed as the outcome of systemic shortcomings. Most frequently, sustainability is constructed as a business problem (15 cases), with expert authors highlighting inadequate corporate practices, misaligned incentives, and slow organisational adaptation as key drivers of sustainability failures, as in:

- (6) This kind of corporate hypocrisy – what we call talking green while lobbying brown – is a form of greenwashing, in which companies trumpet their good deeds while hiding their efforts to block progress. As the past and present presidents of the Alliance for Research on Corporate Sustainability, we are concerned that this greenwashing may delay by years or even decades steps that might solve sustainability problems, such as slowing the pace of climate change or ending the ocean plastic pollution crisis. We and our colleagues in the alliance have documented many business initiatives that fall short of the impact they claim. (Fq7IO5)

This example frames sustainability explicitly as a business problem by attributing sustainability failures to corporate practices such as greenwashing and strategic obstruction. Lexical choices, including “corporate hypocrisy,” “talking green while lobbying brown,” and “hiding their efforts to block progress,” foreground intentional misalignment between corporate discourse and action, constructing businesses as active agents in delaying sustainability solutions. The causal link between greenwashing and delayed environmental action situates unsustainability as an outcome of organisational behaviour rather than technological or individual shortcomings. According to Entman (1993), this instance represents the cause of sustainability problems as rooted in corporate power and accountability failures, thereby framing business itself not as a solution provider but as a central obstacle to meaningful sustainability progress.

At the same time, sustainability challenges are framed as disproportionately burdening marginalised communities (13 cases), foregrounding unequal social impacts and reinforcing the link between environmental degradation and social injustice. A further recurrent causal frame identifies a gap in education (9 cases), particularly in sustainability literacy and professional training, positioning knowledge deficits as a significant barrier to the sustainable transition. Less frequently, sustainability is attributed to the lack of effective policies, where weak regulation and insufficient implementation are presented as enabling unsustainable practices. Explicit economic framings are rare (1 case), suggesting that economic causes are largely backgrounded in favour of institutional and social explanations. The near-absence of explicit

economic causation here is notable: it suggests that authors calibrate their causal attributions towards institutional and social actors, perhaps reflecting both disciplinary conventions and an awareness of audience expectations regarding political rather than structural explanations.

4.2.2 Development

When representing causes and effects, development is predominantly framed as a socio-economic challenge rooted in issues of justice and equity (13 cases). In these instances, underdevelopment and uneven development are attributed to structural inequalities, unequal access to resources, and persistent global asymmetries, positioning development outcomes as socially produced rather than economically inevitable. A further prominent causal frame identifies the lack of effective policies (8 cases), with weak regulation, inadequate governance structures, and institutional failure presented as key factors undermining developmental goals. An interesting example is:

- (7) The ever-mounting costs and failures of the “long night” of neoliberal governance are resonating ever more strongly within national politics. Economist John Quiggin believes this is feeding a new, if nascent, appetite for public intervention and ownership. We must hope this desire for restoration of state capacities extends to the cities whose rapidly deteriorating development trajectories threaten national wellbeing. The first necessity is to reinstate capacities for public economic governance. The need is especially great in the areas of infrastructure and urban services, which powerfully shape the general course of urbanisation. After decades of relentless privatisation and deregulation, however, there is little to govern and little to govern with. (SfJ3PU)

This example frames development failures primarily as the result of ineffective governance and policy erosion. The text explicitly attributes deteriorating development trajectories to the long-term consequences of neoliberal governance, privatisation, and deregulation, thereby locating the cause of underdevelopment in institutional dismantling. References to the loss of “state capacities” and the absence of effective public economic governance foreground policy failure as the central explanatory factor.

Development is also framed as an economic issue (7 cases), though typically in a critical sense that highlights dependency and the limitations of market-driven approaches. Explicit environmental framings are comparatively rare (2 cases), suggesting that ecological degradation is less frequently foregrounded as a primary cause or consequence of development

failure. References to gaps in education occur only marginally (1 case), indicating that knowledge deficits play a secondary role in causal explanations.

These patterns emphasise social injustice and governance failure as central explanatory factors, constructing development as a structurally constrained process shaped by political, economic, and institutional conditions. This governance-centred causal framing positions the state, rather than markets or economic structures, as the primary site of failure and potential remedy. This framing aligns with the impact-oriented and policy relevant objective of research-based news.

4.2.3 Growth

When representing causes and effects, growth is predominantly framed in terms of its unequal social consequences, most frequently as a burden for marginalised communities (22 cases). In these framings, growth-driven economic models are depicted as exacerbating inequality, precarity, and social exclusion, with costs disproportionately borne by vulnerable populations. Representative, in this sense, is:

- (8) And economic growth pursued to the neglect of its human and environmental foundations will ultimately prove unsustainable, kicking back to undermine itself through conflict, disaster and stagnation. Economists have long questioned the idea of “growth at all costs.” Dissenting voices have been heard from illustrious figures such as John Maynard Keynes and IDS founding director Dudley Seers to modern-day exponents Joseph Stiglitz and Thomas Piketty. They, and others in between, have argued that unregulated capitalist growth enhances inequalities and is unsustainable in its own terms. A slightly shorter lineage of neoclassical environmental economists, for example the pioneering work of David Pearce and Ed Barbier in the 1980s, has long argued for addressing environmental “market failures” through mechanisms such as carbon and resource taxes and the “polluter pays” principle. Recent debates highlight prosperity, low carbon and green growth. Meanwhile, resilience studies – dominated by ecologists, but with social scientists including economists among them – have questioned linear growth models. (BEwFad)

This example frames growth as a process that undermines its own social and environmental foundations, producing “conflict,” “disaster,” and “stagnation” that disproportionately affect vulnerable populations. By invoking a lineage of critical economic thought, the text legitimises the view that “growth at all costs” enhances inequalities rather than alleviating them. This framing represents the effects of growth as socially uneven and structurally harmful,

positioning marginalised communities as those most exposed to the cascading consequences of unsustainable economic expansion.

Growth is also represented as an economic issue (10 cases), often through critiques of accumulation, instability, and systemic dependence on continuous expansion. Environmental framings (6 instances) further associate growth with ecological degradation and resource depletion, reinforcing its incompatibility with planetary limits. Value-laden representations (5 cases) foreground the ideological and normative commitments sustaining growth-oriented paradigms, while references to the lack of effective policies (4 cases) highlight governance failures in regulating or redirecting growth trajectories. Less frequently, growth is framed as a business problem (2 cases), where corporate practices are implicated in perpetuating unsustainable expansion.

These causal attributions construct growth as a structurally embedded driver of social and environmental harm, with responsibility dispersed across economic systems, political institutions, and dominant value frameworks rather than confined to isolated actors or sectors. The distribution of responsibility across systems rather than individual actors reflects a structural critical stance that is more consistent with academic political economy than with the personalised attributions typical of mainstream journalism, suggesting that disciplinary framing conventions persist even in public-facing genres (Curry and Pérez-Paredes 2025).

4.3 Proposing solutions

4.3.1 Sustainability

When proposing solutions, sustainability is predominantly framed in opportunity-oriented terms, with a strong emphasis on business-led and market-compatible responses. Most frequently, sustainability is framed as a business opportunity (17 cases), positioning innovation, adaptation, and competitive advantage as key pathways to address sustainability challenges. Alongside this, sustainability is framed as an opportunity to tackle socio-economic injustices (14 cases), where proposed solutions emphasise inclusion, fairness, and improved living conditions for disadvantaged groups. Governance-related solutions appear less prominently (7 cases), typically framing sustainability as a responsibility of public institutions to create enabling regulatory and policy frameworks rather than to drive systemic transformation. Education also features as a solution (6 cases), with sustainability framed as an opportunity to strengthen sustainability literacy and professional training across sectors, as in the example:

- (9) Only 29 percent of the readings assigned in our study acknowledged the scientific need for adopting sustainability practices. Even if we stop or reduce greenhouse gas

emissions, global temperatures will continue to rise for 100 or more years due to carbon dioxide emissions already in the atmosphere. Today's business students who will be tomorrow's business leaders are guaranteed to face sustainability challenges. Future business leaders must be equipped with the scientific understanding of how climate change is currently impacting business, how it will impact business in the future and the profound change that is required of business and industry. Professors of these courses should assign readings that communicate the scientific need for businesses to operate in a more sustainable way to address climate change. (pYI43W)

This example frames sustainability education as a key solution by positioning knowledge and scientific literacy as prerequisites for effective sustainability action. The focus on business students as "tomorrow's business leaders" constructs education as a forward-looking intervention aimed at shaping future corporate practices. By emphasising the need for scientific understanding of climate impacts on business, the text aligns sustainability solutions with professional competence and curricular reform rather than behavioural or structural change. The solution proposes sustainability as a challenge that can be addressed through improved training and knowledge transmission across sectors.

Explicitly economic opportunity framings are comparatively limited (4 cases), suggesting that economic growth is not the primary justificatory logic for sustainability action.

These solutions involve reformist, opportunity-based interventions that construct sustainability as a manageable and beneficial endeavour compatible with existing institutional and economic structures.

4.3.2 Development

When proposing solutions, development is most frequently framed as an opportunity to address socio-economic injustices (8 cases), with expert-authored texts emphasising redistribution, inclusion, and improved living conditions as central objectives. Development solutions are also framed as economic opportunities (6 cases), where growth, investment, and innovation are presented as means to support development goals, albeit often with implicit qualifications regarding equity and sustainability. For instance:

- (10) Designers such as Ezio Manzini, Anna Meroni, Tony Fry, and Jurgen Faust now continue the tradition, with encouragement from economists such as Nobel Laureate Muhammad Yunus and Grameen Lab, while economists such as Jeffrey Sachs look for solutions to sustainable development. The answer is simple. While we live in a world that requires economic growth, we do not recognise that economic growth requires

sustainable development. Rather than sell new products repeatedly to the same few wealthy consumers, we could achieve a different kind of growth by selling better and more durable products to larger groups of people. The world requires a return to a productive ethos for economic growth linked to the reduced resource consumption that will make the world sustainable. This may be a challenge, but designers can play their part in change by accepting their responsibilities for ethical engagement. (XcheBK)

The example above frames development as a solution-oriented process. Development is constructed not as an alternative to growth, but as its necessary condition, redefining growth in qualitative terms. By foregrounding durability, reduced resource consumption, and ethical engagement, the text positions development as a transformative project aimed at reshaping production and consumption practices. The solution proposes sustainable development as the mechanism through which economic goals can be aligned with social inclusion and ecological limits, situating designers and innovators as key agents of change.

Governance responsibility appears less prominently (3 cases), typically positioning public institutions as facilitators of development through policy coordination and regulatory frameworks rather than as primary drivers of systemic change. Business opportunity frames (3 cases) further align development with market participation and private-sector engagement, though these remain secondary to justice-oriented narratives. Finally, education is infrequently proposed as a solution (2 cases), suggesting that while capacity-building is acknowledged, development solutions are more commonly located in socio-economic restructuring and economic reform. More generally, development here is represented as a normative project oriented toward social justice, supported, but not dominated, by economic and institutional mechanisms. This justice-oriented but market-compatible framing of development solutions reflects the ambivalent position of academic news blogs navigating between critical academic perspectives and the explanatory register expected in public-oriented research communication.

4.3.3 Growth

When proposing solutions, growth is framed in more heterogeneous and contested ways than sustainability and development, reflecting its problematic status within the discourse. Most frequently, growth is constructed as an opportunity to tackle socio-economic injustices (6 cases), where alternative economic models are proposed as means to reduce inequality and improve social well-being. Growth is equally framed as an economic opportunity (6 cases), though these framings tend to emphasise qualitative change, redistribution, or reoriented economic activity rather than expansion for its own sake. Value-laden growth (5 cases) foregrounds ethical

reflection, collective responsibility, and normative re-evaluation of what constitutes prosperity and progress, as in:

- (11) Today, the framing of climate change has become heavily associated with ideological frames. Talking about energy might just get us beyond the impasse. “Appreciative inquiry” is an educational approach using dialogue and storytelling in a collaborative way. Appreciative inquiry looks at possibilities based upon big-picture thinking by sharing stories instead of critique. Rather than focusing on the deficit model of problem solving, appreciative inquiry encourages listening to other experiences to learn and foster positive growth. Moving away from abstract concepts of climate change and over to concrete ideas of energy change allows conversations to unfold, particularly those about how we collectively live with energy in our daily lives. People know how much it costs to fill the truck, what the electrical bill costs each month or why we need forms of fuel to cook our food. Energy stories also involve environmental threats that impact human lives such as through polluted air or water contamination. (B182i2)

This example depicts growth as potentially connected with ethical reflections. By advocating “appreciative inquiry” and storytelling, the text foregrounds dialogue, shared experience, and normative re-evaluation of how societies conceptualise energy use and everyday prosperity. The shift from abstract climate discourse to lived energy practices situates growth within moral and cultural dimensions of daily life. The solution function of growth selects values, participation, and collective responsibility as salient, constructing alternative pathways to progress grounded in ethical engagement.

Governance responsibility appears less prominently (3 cases), positioning public institutions as enablers of alternative growth trajectories rather than as drivers of conventional expansion. References to education as a solution are rare (1 case), suggesting that growth-related solutions are primarily conceptualised at structural, economic, and normative levels. In sum, in terms of solutions, growth is constructed as a site of ideological contestation where addressing injustice requires rethinking economic values, institutional roles, and the meaning of development itself. The rarity of growth as a proposed solution – only 13% of instances against 51% of definitional and 34% of causal ones – suggests a significant asymmetry: authors are more willing to problematise growth than to articulate alternatives to it, which may indicate the limits of what is discursively speakable in a hybrid genre oriented towards broad public audiences.

5. Discussion

The analysis reveals that sustainability, development, and growth are articulated in research-based news through a shared discursive logic that foregrounds socio-economic, institutional, and market-oriented concerns. Across definitional, causal, and solution-oriented functions, sustainability, development, and growth are frequently treated as interconnected and mutually supportive. While this convergence reflects the multidimensional nature of sustainability debates, it also has important ideological implications, as it tends to normalise compatibility between ecological goals and growth-oriented economic models. From a discourse-analytic perspective, this pattern suggests that public-oriented research communication reflects complexity, shaping the boundaries of what is presented as feasible, legitimate, and desirable in public understandings of socio-ecological futures.

5.1 Convergence of definitions and semantic blending

One of the most salient findings is the degree of semantic overlap among sustainability, development, and growth. Although each concept carries distinct theoretical histories and political implications, in the analysed texts, they are repeatedly framed using similar socio-economic, governance, and business-oriented vocabularies. As a result, their conceptual boundaries become blurred, and they function less as analytically distinct categories than as elements of a shared discourse of rational socio-economic change. Across the corpus, this convergence creates a discursive landscape in which sustainability, development, and growth appear mutually reinforcing rather than potentially conflicting. Such blending risks reproducing what political ecologists have described as the green growth paradigm, the assumption that economic expansion and ecological sustainability are mutually compatible (Martínez-Alier, et al. 2010; Meadows, et al. 1972), thereby obscuring tensions that are central to degrowth and post-development debates. This is visible, for instance, in example 10 in paragraph 4.3.2, where development is framed not as an alternative to growth but as its necessary condition. From an ecolinguistic perspective (Stibbe 2021), this pattern reflects dominant cultural narratives that privilege economic continuity and institutional optimisation, while rendering alternative ecological imaginaries less visible.

5.2 The centrality of economic and institutional frames

The prevalence of business, governance, and economic frames across all three terms demonstrates that academics tend to articulate sustainability challenges within institutional and market-oriented vocabularies. Sustainability as a business opportunity appears repeatedly, and business actors are frequently positioned as key drivers of sustainability transitions, even

more adaptable than governments. Such frames resonate with well-established trends in corporate discourse, where sustainability is incorporated into strategic innovation and risk management (Zappettini and Unerman 2016).

At the same time, this orientation carries limitations. By privileging solutions compatible with existing economic systems, research-based news may implicitly reinforce the assumption that sustainability can be achieved without addressing deeper questions of power, inequality, and consumption. Although governance failures and policy inertia are regularly acknowledged, the emphasis on business-led solutions risks reproducing narratives that foreground market efficiency over ecological regeneration.

5.3 Backgrounding of ecological perspectives

Despite the ecological nature of the sustainability challenge, ecological frames constitute a minority across all functions. Environmental issues appear primarily as consequences of unsustainable practices rather than as frames that shape the conceptualisation of sustainability itself. This asymmetry is significant: it indicates that ecological considerations, although present, do not anchor the core narratives through which experts communicate sustainability to the public. From an ecolinguistic standpoint, this suggests that the ecological story is subordinated to narratives of governance and economics. While these dimensions are essential, their discursive dominance may narrow the horizon of possible socio-ecological transformations and perpetuate anthropocentric imaginaries. There is evidence of critical engagement with mainstream sustainability narratives, such as explicit discussions of growth limits, structural inequality, and intergenerational justice, but these critiques are often embedded within broader discourses that maintain the primacy of economic reasoning. This ambivalence reflects the ambiguous nature of sustainability itself, which simultaneously challenges and reproduces the very systems it critiques.

The presence of alternative frames indicates that *The Conversation* offers openings for transformative imaginaries. Yet these are consistently overshadowed by institutional and economic perspectives, and this asymmetry is not incidental. As established in the literature review, articles published in *The Conversation* are co-produced by academics and editors to enhance public relevance and clarity. This editorial mediation is likely to favour framings that resonate with mainstream news values. From this perspective, the backgrounding of ecological frames may reflect not only the ideological orientations of authors but also the genre constraints of a platform structurally positioned between scholarship and journalism – constraints that render certain stories more speakable than others.

5.4 Implications for sustainability communication

The findings underscore the role of research-based news as a key site where sustainability meanings are not only communicated but also selectively stabilised. In hybrid platforms such as *The Conversation*, public-oriented research communication operates under dual constraints: maintaining academic credibility while conforming to journalistic expectations of clarity, relevance, and solution-oriented narratives. As Curry and Pérez-Paredes (2025) and Curry and Brookes (2025) demonstrate, the genre conventions of research-based news move within academic conventions, cultural frameworks and newsroom procedures that, in turn, shape what counts as a viable response to sustainability challenges. Yet the critical framing of growth at the definitional level, where authors appear to retain greater disciplinary autonomy, indicates that academic ideological orientations also play a role, pointing to a more complex interplay between genre constraints and disciplinary positioning than either explanation alone can account for. Within this communicative context, the convergence observed among sustainability, development, and growth suggests that expert-to-public communication contributes to normalising particular interpretive frames while limiting the visibility of others. Furthermore, from an ecolinguistic perspective, the stories circulating in expert-authored public discourse shape how audiences imagine responsibility, agency, and socio-ecological futures. When ecological concerns are subordinated to economic and institutional logics, engagement may be fostered without fundamentally reconfiguring human-nature relations. Conversely, when relational and ethical framings emerge, they momentarily expand the horizon of what is thinkable and desirable.

Overall, the findings suggest that expert-to-public sustainability communication both opens and constrains the space of socio-ecological imagination, balancing critical awareness with discursive alignment to dominant institutional and economic frameworks.

Bionotes

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