



Peer-Review Report Form

Manuscript Title:	The Silent Extinction: Language Diversity as a Cognitive and Ecological Resource
Type of Article:	Review Article

FIRST ROUND

Editor

General Comments and Recommendations

The reviewers acknowledge the significance of your manuscript and recommend several revisions to further improve its clarity, coherence, organization, and overall scholarly quality. In addition, you are advised to thoroughly review and validate all references included in the manuscript. Please ensure that all cited sources are accurate, accessible, and retrievable through Google Scholar to uphold the credibility and reliability of the study. Additionally, make sure to include the DOI or website link for every reference to facilitate verification and accessibility of sources. Furthermore, only sources that are cited within the manuscript should appear in the References section, and all entries listed in the References section must also be cited in the text. For example, if 20 unique sources are cited in the manuscript, then only those 20 sources should be included in the References section. Please note that repeated citations of the same source within the text are counted as a single reference entry; therefore, the total number of references may be lower than the total number of in-text citations.

Reviewer 1

General Comments and Recommendations

The way you synthesize literature spanning the Sapir-Whorf hypothesis, neuroscience, and AI training data is highly commendable. You make a strong case that documenting a language is not the same as preserving a living cognitive system. Your admission that this is not a systematic review in the PRISMA sense is honest, but it leaves the paper vulnerable to critiques of selection bias. Enhancing the transparency of your literature search will significantly elevate the paper's credibility. The Neurolinguistic Ecosystem Theory (NET) and the Linguistic Triage Protocol (LTP) are excellent theoretical contributions. However, to make the LTP truly impactful for policymakers, it needs a clearer, data-driven roadmap for implementation.

Specific Comments and Recommendations

"The Silent Extinction" is a catchy and evocative hook. However, since a unique contribution of your paper is the intersection of language diversity and AI, you might consider weaving that into the subtitle to attract a broader readership.

The abstract does a great job summarizing the core arguments and introducing NET and LTP. I recommend adding one sentence explicitly stating the methodology (e.g., a narrative-integrative review of 78 sources) so readers immediately grasp the scope of the evidence.



You establish excellent context right out of the gate by citing Michael Krauss's 1992 projection and updating it with 2023/2024 UNESCO and Ethnologue data. When discussing the three existing paradigms for preservation (heritage rights, documentation, and diversity), provide a brief, one-sentence concrete example of a policy or program that falls under each. This grounds the theory in real-world practice before you introduce your fourth lens.

Language Diversity and AI (2.5): This is the most novel section of the review. You rightly point out that large-scale AI language models amplify inequality because they are trained overwhelmingly on dominant languages like English, Mandarin, and Spanish. Push this further. Could you briefly discuss how open-source, community-driven AI initiatives might actually be used as tools for language revitalization, rather than just viewing AI as a compounding threat?

The Linguistic Triage Protocol (3.2): This tool has immense potential, but the scoring mechanism (1 to 5) currently feels too subjective. I highly recommend developing a continuous quality improvement flowchart or a clear, outcomes-based rubric. Show the reader exactly what a "3" looks like versus a "5" across the dimensions. How are the weights agreed upon with community representatives? Establishing a clear, data-driven protocol for this will make the tool much more robust for academic and administrative use.

Methodology: This section requires the most attention. You state that a working set of approximately 78 sources informed the synthesis, drawn from databases like JSTOR, Google Scholar, and PubMed. Even if this is an integrative review, you must detail your search strings, inclusion criteria, and exclusion criteria. Why these specific 78 sources? Adding a simplified flowchart detailing the selection process will align the manuscript with the rigorous, transparent standards expected by reviewers and editors in this journal.

Discussion and Implications: You make a powerful point that language diversity belongs alongside biological diversity as a dimension of global sustainability. To strengthen this section, tie the implications directly back to the LTP. If a language scores highly on the LTP, what is the exact step-by-step roadmap a policy body should take? Providing a strategic plan for how stakeholders can move from assessment to immediate intervention would ground your theoretical work in practical reality.

References: The references appear well-curated and span foundational texts (Wittgenstein, 1921) to contemporary AI research (Bender et al., 2021). Please do a final check to ensure all DOIs are active and that the formatting strictly adheres to the specific journal guidelines.

Please indicate your recommendation by checking the appropriate box below.

<u>Decision</u>	
	Accept the manuscript for publication.
/	Reconsider the manuscript after the authors have satisfactorily addressed and complied with the reviewers' comments and recommendations.
	Reject the manuscript, as it is not suitable for publication.



Reviewer 2

<u>General Comments and Recommendations</u>
The manuscript presents an interesting and relevant argument about language extinction, but I have one major concern regarding the validity of its central theoretical claim. In its present form, I am not convinced that the evidence reviewed is sufficient to support the Neurolinguistic Ecosystem Theory.
<u>Specific Comments and Recommendations</u>
The paper makes a large inferential jump from evidence that language can influence particular cognitive tasks to the claim that the death of one language causes an irreversible reduction in the total cognitive capacity of humanity. The studies on spatial orientation, color discrimination, bilingualism, and neural activation show differences in processing among speakers, but they do not establish that these cognitive abilities disappear when a speech community disappears, or that such abilities cannot be learned, expressed, or reconstructed through another language. However, this unproven assumption becomes the foundation of NET, particularly the propositions that languages are nodes in a global cognitive system and that loss of one node degrades the capacity of the whole system. The same assumption is later presented as a basis for conservation priorities, AI development, and international policy, even though the manuscript itself admits that NET has not been empirically tested. The authors need to substantially reduce the claims or provide a stronger theoretical mechanism and direct evidence showing irrecoverability and system-level cognitive loss. Without resolving this foundational issue, the proposed framework remains an attractive analogy rather than a defensible theory.

Please indicate your recommendation by checking the appropriate box below.

<u>Decision</u>	
	Accept the manuscript for publication.
/	Reconsider the manuscript after the authors have satisfactorily addressed and complied with the reviewers' comments and recommendations.
	Reject the manuscript, as it is not suitable for publication.

SECOND ROUND

<u>Decision</u>	<u>Editor</u>	<u>Reviewer 1</u>	<u>Reviewer 2</u>
Accept the manuscript for publication.	/	/	/
Reconsider the manuscript after the authors have satisfactorily addressed and complied with the reviewers' comments and recommendations.			
Reject the manuscript, as it is not suitable for publication.			