

Peer Review Comments

Article: Casillas, M., and Cristia, A. (2019). A step-by-step guide to collecting and analyzing long-format speech environment (LFSE) recordings. *Collabra: Psychology*, 5(1): 24. DOI: <https://doi.org/10.1525/collabra.209>

Article type: Review Article

Editor: Mark Dingemans

Article submitted: 19 November 2018

Editor decision: Accept submission

Revision submitted: 14 March 2019

Article accepted: 30 April 2019

Article published: 23 May 2019

Responses for Version 1

Reviewer A:

1) General comments and summary of recommendation

Describe your overall impressions and your recommendation, including changes or revisions. Please note that you should pay attention to scientific, methodological, and ethical soundness only, not novelty, topicality, or scope. A checklist of things to you may want to consider is below:

- Are the methodologies used appropriate?
- Are any methodological weaknesses addressed?
- Is all statistical analysis sound?
- Does the conclusion (if present) reflect the argument, is it supported by data/facts?
- Is the article logically structured, succinct, and does the argument flow coherently?
- Are the references adequate and appropriate?:

I must congratulate the authors for writing this guide. It's been a while since I have reviewed a document that is well-written and engaging. I can see that I will use this guide in the future and that I will recommend it to colleagues and students as well. The article is logically structured and the argument flows coherently. Furthermore, the references are appropriate and comprehensive. I just have some minor comments to further improve the manuscript. In addition, I would like to bring out an overall issue, which may need that the researchers do further research.

Minor issues.

On page 6 first paragraph, it is important that the authors indicate the studies they are referring to when they cite Mehl and colleagues.

Figure 1 needs a note indicating what AWC, CTC, and CVC mean.

A reference is needed to support the argument presented on page 15 paragraph 4 about recording for 10 hours.

For another paper using LENA with adults, please see:

Rodríguez-Arauz, G., Ramírez-Esparza, N., García-Sierra, A., Ikizer, E. G., & Fernandez-Gomez, M. (in press). You go before me please: Behavioral politeness and interdependent self as markers of Simpatía in Latinas. *Cultural Diversity and Ethnic Minority Psychology*.

Page 19 you can use the paper from Weisleder and Fernald (2013) for estimates on LENA accuracy for the Spanish language.

Page 24. Second paragraph under 5.2 is confusing. First, references are needed when you talk about the 30 second sampling. Please note that I think Mehl and colleagues did it every 12.5 minutes. Second, it is confusing when you mention both of the authors...which authors? Third, see Ramirez-Esparza and colleagues studies for 30 second sampling with LENA that is comparable, but not equal, to that used by Mehl and colleagues.

Overall Big Issue.

I feel that the guide would be stronger if the authors mention the different ways of coding LFSE recordings. It seems that the authors are only talking about automatic software, but there are other approaches that are also relevant to analyzing LFSE recordings. For example, in our studies we have used the SECSI to quantify social and behavioral variables. This is pertinent, for non-WEIRD populations as well. And it is possible that there are other approaches out there that could enrich this section.

I would like to highlight that one of the reasons I use LENA is because it is very accurate to capture language activity and therefore it makes it more efficient to code for social behaviors only in those instances when there is action or social interactions. Other recording devices, like the sampling using the EAR, are efficient, but it is possible that many of those intervals are non-usable (e.g., there are no interactions, there is noise, etc). Whereas with LENA, coders only listen to intervals where there are interaction and most of the data is usable. That helps to save money and time during the coding procedure.

I would recommend the authors to spend less time talking about the characteristics of LENA as a software, since I feel that this information can be retrieved in other published papers. Furthermore, as I was reading the document, I felt that there was information about the LENA that was too repetitive. By making this information shorter the authors could talk instead about ways to code for LFSE recordings above and beyond using automatic software for coding (e.g., CLAN, transcriber etc).

2) Figures/tables/data availability:

Please comment on the author's use of tables, charts, figures, if relevant. Please acknowledge that adequate underlying data is available to ensure reproducibility (see open data policies per discipline of Collabra here):

The figures, tables and supporting material is appropriate

3) Ethical approval:

If humans or animals have been used as research subjects, and/or tissue or field sampling, are the necessary statements of ethical approval by a relevant authority

present? Where humans have participated in research, informed consent should also be declared.

If not, please detail where you think a further ethics approval/statement/follow-up is required.:

This is not applicable

4) Language:

Is the text well written and jargon free? Please comment on the quality of English and any need for improvement beyond the scope of this process.:

The manuscript is well-written. It just needs to be revised for minor type-os.

Reviewer C:

1) General comments and summary of recommendation

Describe your overall impressions and your recommendation, including changes or revisions. Please note that you should pay attention to scientific, methodological, and ethical soundness only, not novelty, topicality, or scope. A checklist of things to you may want to consider is below:

- Are the methodologies used appropriate?
- Are any methodological weaknesses addressed?
- Is all statistical analysis sound?
- Does the conclusion (if present) reflect the argument, is it supported by data/facts?
- Is the article logically structured, succinct, and does the argument flow coherently?
- Are the references adequate and appropriate?:

Please see the comments on the manuscript for details. Here is my summary:

The article is meant as a guide for researchers who are interested in studying speech and language phenomena through long, naturalistic recordings of participants' everyday environments. The authors explain why one might be interested in conducting such investigation and review tools and resources that can help with the data collection and analysis (e.g. LENA, HomeBank, the DARCLE annotation scheme, the DARCLE community). The authors also discuss various considerations that one must make when designing such research studies (e.g. with respect to ethics, data sharing and archiving, sampling and transcription) and provide thoughts on working with non-WEIRD populations -- which brings additional challenges e.g. with respect to obtaining informed consent.

For most of the topics that are addressed in the article, there are no "one size fits all" solution or best practices. Even for some fundamental questions there are no clear answers (such as how to select samples for transcription and validation). Instead, the authors provide a useful overview of various directions that one might want to explore to solve these problems. They also urge the reader to consider re-using existing data, and

to make their data available, in order to support the development of tools and fuel future research efforts.

Overall, this guide provides a valuable introduction to the practical challenges involved in designing a study around long-form speech environment (LFSE) recordings and indicates potential solutions for many of these challenges. It would be a valuable resource for newcomers to this field, who plan to design LFSE studies. Even for experienced researchers it might point them to resources and alternative solutions that they were not previously aware of. The paper also makes the important point that re-using and sharing data and tools will help to advance the field.

A small issue I had with the text is that the authors intent the article to be cross-disciplinary. However, the focus is clearly on the use of LFSE recordings for linguistics, and linguistic research topics are used as examples throughout the text. The potential of these methods for anthropology, medical research and clinical practice (e.g. speech and language therapy) is only mentioned sporadically and inconsistently. I think with minor changes to the text the authors could be a more inclusive for readers from other disciplines and make the article more attractive for a wider audience.

2) Figures/tables/data availability:

Please comment on the author's use of tables, charts, figures, if relevant. Please acknowledge that adequate underlying data is available to ensure reproducibility (see open data policies per discipline of Collabra here):

Comments relating to the figure and table have been made in the manuscript. To summarize: The figure should be "polished" to give it a cleaner, more professional look. The table should be supplemented with additional information, so that it is easier to understand without reference to the text. It should also be arranged so that it better allows comparison between the three presented platforms. Perhaps the table is not really necessary at all.

3) Ethical approval:

If humans or animals have been used as research subjects, and/or tissue or field sampling, are the necessary statements of ethical approval by a relevant authority present? Where humans have participated in research, informed consent should also be declared.

If not, please detail where you think a further ethics approval/statement/follow-up is required.:

not applicable

4) Language:

Is the text well written and jargon free? Please comment on the quality of English and any need for improvement beyond the scope of this process.:

My main issue with the text concerns the writing style, which I sometimes find imprecise or unclear, and sometimes unnecessarily verbose and ornamental. Some passages seem too colloquial or too personal for this kind of text, and some formulations seem ungrammatical or at least uncommon. I could be wrong about some of this--since I'm not a native speaker--, and the comments I made about it should therefore be taken with a grain of salt. Nevertheless, I strongly suggest spending some time editing the text for clarity and parsimony. Ideally, a native speaker should review it.

I also sometimes found the overall structure a bit unclear. In part this had to do with the lack of signposting. In other instances I had the impression that information was presented in the wrong place. One example of this is that the structure of the rest of the paper is presented under the section Pros and Cons of LFSE, which is not part of the introduction anymore. In other cases, the particularities of a problem are discussed before the problem has been fully introduced. I suggest to take some time to flesh out the overall structure to make it easier to follow.

Restructuring the article and making the writing more concise will contribute to its usefulness. On a related note, the text could be made more novice-friendly by better explaining some of the technical/linguistic jargon used in the text.

Editor Decision for Version 1

Editor: Mark Dingemans

Affiliation: Radboud University & Max Planck Institute for Psycholinguistics

Editor decision: Revisions Required

Decision date: 10 January 2019

Dear Dr Casillas,

After review, we have reached a decision regarding your submission to Collabra: Psychology, "A step-by-step guide to collecting and analyzing long-format speech environment (LFSE) recordings". Both reviewers are positive about the article and underscore the need for a guide like this. Both also have multiple suggestions for improvements and revisions. Our decision is to request revisions of the manuscript prior to acceptance for publication.

The full review information is included at the bottom of this email. Reviewer C also supplied a copy of the manuscript file with detailed comments; this is available online in your Collabra submission account. A summary of the requested edits from the editorial team can be found below. Please consider these points and revise the file accordingly:

Editorial Revision Requests:

Reviewer A is highly positive about the manuscript and offers mostly minor corrections and additions, which I will leave to you to implement or respond to.

Reviewer C has provided some general comments in the review, and has additionally annotated the manuscript files in great detail. I think you will find many of these comments helpful. From an editorial perspective, the most important points made are:

- * The suggestion to make the guide a little less focused on linguistics alone. As the reviewer notes, "with minor changes to the text the authors could be a more inclusive for readers from other disciplines and make the article more attractive for a wider audience". To be clear, this is not a call for radically altering the scope of the ms; instead, just to make it as inclusive and broadly relevant as possible even given its particular focus on linguistics.

- * Structure and style can be improved by increasing signposting and explaining some of the linguistic jargon (this relates to the first point). As the reviewer mentions, "I suggest to take some time to flesh out the overall structure to make it easier to follow." There are also some inconsistencies in writing style, such as switches from a relatively distanced register to a more colloquial, reader-directed "you" (as in §5.1) which seem somewhat jarring. I recognise these may be hard to resolve given the hybrid nature of the ms as a review and a guide, but it would be good to try to reach a consistent style throughout.

- * On a related note, I agree with this reviewer that footnotes are best avoided if possible. For instance, perhaps when the flow of the ms is tightened it will be possible to find a place for the (useful) points made in footnotes 1 and 3.

- * Figure 1 should be produced as a vector image using Adobe Illustrator or similar.

For many of the smaller comments of Reviewer C I will leave it to you to decide how to act on them. However, there are some points where I don't think you need to follow Reviewer C to the letter:

- * I think it is fine to mention the appendices in the abstract

- * You can ignore their call to have a native speaker review the writing. (As an editor I am aware that this kind of comment makes unnecessary assumptions and is disproportionately often made towards authors with non-Anglo affiliations or non Anglo-looking names.)

Additional editorial notes:

- * WEIRD is not (yet) usable without explanation (as you see from reviewer C). I recommend that you spell it out or paraphrase the idea in the abstract instead of using it without explanation.

- * In §5.1, the notion that EMU SMDS "requires a significant initial time investment" clashes with the point, in the next paragraph, that "a little investment" would be sufficient to save much time. I expect that for most readers, setting up a local server, defining a global architecture and making it interoperable with git, Praat or other tools in a workflow definitely represents a major investment.

- * It is somewhat confusing that there is only one reference list for both the main ms and the appendices. This means it is hard to locate references cited only in the appendices, and also that references that appear in the main text are not all cited there. I recommend that you generate two separate bibliographies.

- * Like CLAN, ELAN is usually cited not just by reference to the website but also by means of a proceedings paper by Sloetjes and colleagues (relevant refs can be found in the ELAN help or on the ELAN site). Something similar probably holds for LENA.

In preparing your revisions, please respond to the points made here and by the reviewers and indicate what changes you have made (or not made, with motivation), either in the document or in the action letter.

To access your submission account, follow the below instructions:

- 1) login to the journal webpage with username and password
- 2) click on the submission title
- 3) click 'Review' menu option
- 4) download Reviewed file and make revisions based on review feedback
- 5) upload the edited file
- 6) Click the 'notify editor' icon and email the confirmation of re-submission and any relevant comments to the journal.

Please ensure that your revised files adhere to our author guidelines, and that the files are fully copyedited/proofed prior to upload. Please also ensure that all copyright permissions have been obtained. This is the last opportunity for major editing;, therefore please fully check your file prior to re-submission.

If you have any questions or difficulties during this process, please do contact us.

We would appreciate if you could complete the revisions within a few weeks.

Kind regards,

Dr Mark Dingemanse
Associate Professor, Language & Communication
Radboud University
m.dingemanse@let.ru.nl

Author's Response to Review Comments for Version 1

Author: Marisa Casillas

Affiliation: Max Planck Institute for Psycholinguistics, Nijmegen, NL

Revision submitted: 14 March 2019

Dear Editorial Team,

We hereby submit revised versions of our manuscript "A step-by-step guide to collecting and analyzing long-format speech environment (LFSE) recordings" and its appendices (all uploaded 2019-03-14). In the supplementary materials section of our Collabra page, we have also uploaded a cover letter detailing our changes. We attach it here for your convenience.

Thanks very much again for your consideration. Please don't hesitate to contact us if there is anything further we can provide you regarding the submission.

Best wishes,
Marisa Casillas and Alex Cristia

Attached document:

<https://s3-eu-west-1.amazonaws.com/ubiquity-partner-network/ucp/journal/collabra/209-2931-1-AT.pdf>

Editor Decision for Version 2

Editor: Mark Dingemanse

Affiliation: Radboud University & Max Planck Institute for Psycholinguistics

Editor decision: Accept submission

Decision date: 30 April 2019

Dear Dr Marisa Casillas,

After review, we have reached a decision regarding your submission to Collabra: Psychology, "A step-by-step guide to collecting and analyzing long-format speech environment (LFSE) recordings", and are happy to accept your submission for publication, pending the completion of copyediting and formatting processes.

As there are no further reviewer revisions to make, you do not have to complete any tasks at this point. The accepted submission will now undergo final copyediting. You will be contacted once this is complete to answer any queries that may have arisen during copyediting and to allow a final chance to edit the files prior to typesetting. If you wish to view your submission during this time, you can log in via the journal website.

The review information should be included in this email.

Kind regards,

Dr Mark Dingemanse
Radboud University & Max Planck Institute for Psycholinguistics
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