"PHONETIC SCIENCES IN RETROSPECT" – A WRITTEN INTERVIEW PROJECT

Jürgen Trouvain[1], *Pavel Šturm*[2]

[1]*Language Science and Technology, Saarland University, Saarbrücken, Germany,*
[2] *Institute of Phonetics, Charles University, Prague, Czech Republic*
trouvain@lst.uni-saarland.de

Abstract: This paper introduces an ongoing interview project that explores the personal reflections and professional insights of ten senior scholars in the phonetic sciences. Written interviews were employed as a qualitative method to document the evolution of the field through first-hand accounts. The core objective is to develop a broader historical and conceptual understanding of the phonetic sciences by collecting responses to a structured questionnaire organized around ten thematic areas – from research milestones and methodological limitations to interdisciplinary challenges and personal career reflections. A central methodological decision was to conduct written rather than spoken interviews, ensuring consistency across responses and facilitating direct comparison while allowing participants time for considered reflection. The selection of interviewees sought to reflect diversity across subfields, gender, and geography, although the current sample still shows a Northern Hemisphere. Preliminary findings revealed both shared perspectives and notable divergences, including recurring references to figures like Abbé Rousselot and Gunnar Fant. The responses have already uncovered surprising historical anecdotes and insights. As editing continues toward a planned book publication in 2025, the project remains open to expansion, with additional contributions anticipated for the online edition.

1 Introduction

Although 'interviews' are not a common genre in scientific literature, at least not in the phonetic sciences, sharing the experience and knowledge of scholars with long and distinguished careers can offer valuable perspectives to members of various scientific communities. In this article we report on methodological issues of an ongoing written interview project on "Phonetic Sciences in Retrospect: Interviews on the Evolution of the Field". These interviews include responses of (currently) ten colleagues (beyond 65 years of age) who were – and in some cases still are – active in diverse fields of phonetics.

2 Interviews as a special genre of scientific output

An interview can be regarded as a qualitative research method that relies on asking questions to collect data, often performed in social sciences [1] or in ethnographic research [2-4]. In such contexts, the primary aim is to gather empirical data rather than to elicit personal reflections from scholars on their fields of expertise.

When looking more closely to linguistics, and particularly to phonetics, existing interview projects tend to focus either on single personalities recognized as accepted authorities in their fields, e.g. an interview with the sociolinguist William Labov [5], or on oral interviews with several scholars, such as those available at the oral history website of the Acoustical Society of America, e.g. an interview with Katherine Harris, a longtime member of the Haskins Laboratories, published as a transcript by Bell-Berti [6]. Further examples include transcribed oral interviews with the British-American phonetician Peter Ladefoged [7], the Japanese speech

10.21437/HSCR.2025-2

scientist Sadaoki Furui [8] or the British phonetician Michael Ashby on the emergence of phonetics as a field [9]. Further examples of oral history of speech researchers that not only includes transcripts of the interviews but also the corresponding audio files were collected at the Haskins Laboratories [10].

Yet another approach of interviews in linguistics is exemplified by Gururaja et al. [11], who conducted long-form retrospective interviews with more than twenty researchers in the field and delivered a structured summary. Their purpose was to achieve more *general* insights for their field (i.e., natural language processing) for the future by engaging scholars with extensive experience.

For our project, we invited distinguished colleagues to respond to a written questionnaire structured along ten topics, each containing two to three questions (see Section 5). Included are questions about their specific research field and their views on the progress in the field in the last two centuries (highlighting key milestones and scholars, and even proposing candidates for an imaginary Noble Prize in the field). Further topics address their personal career experiences, including reflections on their mentors and comparisons between the academic environment of the past and the present. Respondents were also asked to comment on barriers they encountered (e.g. overlooked or inaccessible publications) and on crucial theoretical concepts. The final topics refer to methodological limitations, interdisciplinarity, and communicating the relevance of their research to laymen.

3 The Interviewees

So far, we have received responses from ten scholars. Their names will be published in the official formats of the project: a book and a dedicated website. The latter offers greater flexibility, allowing the interview collection to be expanded with additional contributions over time. Currently, four more persons have agreed to participate.

The selection of interviewees required a careful balance of various factors. A very important factor for us was that the diversity of the phonetic sciences was represented. Our ten scholars therefore stand for fields and approaches that range from phonology to conversational analysis, from voice and intonation to rhythm studies, from fieldwork to laboratory observation. Admittedly, finding an appropriate term that describes the scientific area we had in mind proved much more difficult than anticipated. We changed from *speech communication research* to *phonetic sciences* after discussions with our first two interviewees who felt uneasy with the former term. In contrast, the latter term, *phonetic sciences,* is broad enough to cover the intended diversity as reflected for instance by scholars with an activity at the International Congress of Phonetic Sciences (ICPhS) [12].

Nowadays, striving for gender balance is often seen as a standard consideration in academic projects. In previous research [13], we showed that, for first authors of conference papers at ICPhS meetings, this was achieved at the congress in 2007. In our current selection, four of the ten interviewees are female.

Another factor that should not be ignored is the geographical distribution of the interviewees. In [13] we demonstrated that ICPhS meetings have shown a strong bias toward researchers from countries in the northern global hemisphere. A similar imbalance is evident in our current sample, with seven out of the ten interviewees based in North America and the United Kingdom, and only three in (Western) Europe. This is a caveat we acknowledge and aim to address in future expansions of the interview project.

4 Comparability of responses

To enable meaningful comparisons between responses, we recognized the need to ask identical or almost identical questions across interviews. It was also important to us that readers should have the opportunity to consult the original answers and not only our interpretations of the

primary data. For this reason, we decided to use a written questionnaire. Although it might be more natural for phoneticians to engage in spoken interviews (be it face-to-face, by phone or online), we opted for the written format to ensure consistency and comparability, being fully aware that some information that might surface in spoken dialogues will be lost during the process.

We developed a fixed questionnaire that provided a stable structure, ensuring that the order and wording of the questions were identical for all interviewees. Although this is a feature of the so-called *structured interview* [1], we did not follow a typically structured interview where questions are so precise that they require clear answers (yes/no). Rather, our questionnaire was designed with elements of *semi-structured* or even *un-structured* interviews, allowing for greater open-endedness and flexibility.

5 The questionnaire

This section contains the original questionnaire that all interviewees were sent.

"As outlined in the email, our written interview project has the objective to explore the history of how the spoken form of language has been studied over time. We intentionally use the term 'phonetic sciences' in a rather broad sense to cover various topics and scholars represented in conferences such as ICPhS. Although some scholars might prefer alternative labels (e.g., research on speech communication, spoken language or speech sciences), we feel that the term 'phonetic sciences' expresses well our idea of the diversity of the field and its subfields and interfaces to other fields (such as language acquisition, cognition, engineering and many more).

Summary of instructions:

- There are ten sections, with two to three questions in each section.
- Please keep your responses to each section within 600 words (roughly one page).
- Please try to avoid overly complex or formal language in favour of a more engaging style.

5.1 The Field

Let's begin by exploring your perspective on the field. Specifically, we would like to gain insights into how you would define your area of study within the broad field of the phonetic sciences, how you became interested in it, and your thoughts on what should be included in – and perhaps what excluded from – the study of spoken language.

- How would you define your field of study within the phonetic sciences?
- How did you come to the field?
- What activities and/or types of material are part of the study of spoken language and what sort of activities and/or types of material are NOT part of it?

5.2 The Origins

There is disagreement about when phonetic questions began to be studied scientifically. Firstly, what scholars contributed most, in your view, to the initiation of modern phonetic sciences, probably in the 19th century? Secondly, what were the key moments and 'firsts' that shaped the field in its early years (such as important books, influential schools, first attempts of measurement or observation, theoretical breakthroughs, and so on)? And thirdly, are there any crucial precursors that predate the 19th century that you believe are important to consider?

- Which scholars did contribute most to the initiation of modern phonetic sciences in the 19th century in your view?
- What specific moments and other 'firsts' come to your mind as important milestones in this era?

- Would you like to suggest examples of crucial precursors in the field before the 19th century?

5.3 Groundbreaking Development

Let's now focus on pivotal events and influential figures that have shaped the field later than those mentioned so far. Could you provide your perspective on the most critical 20th-century milestones that have propelled your area of study forward? Additionally, just envision a Nobel Prize being awarded in your field. Can you share with us who in the 20th century you would have nominated and why (regardless of whether you have personally met that person)? Also, we are interested in your thoughts on the future of the field: Can you think of a future Nobel Prize winner in the 21st century, what achievements and contributions do you believe should be recognized? (There is no need to specify a particular name.)

- According to you, what are the most important (max. three) 20th-century milestones in the phonetic sciences that advanced your field?
- Imagine that a Nobel Prize were awarded in your field: who in the 20th century would you have nominated and for which reason?
- Think of a future Nobel Prize winner in the 21st century in your field: for which reason and achievements should this person or team be nominated?

5.4 Mentors and Unnoticed Neighbours

Here we would like to know who were the mentors or influential voices that helped shape your professional life in the early stages. These could be individuals you've personally collaborated with or authors whose works have had a significant impact on your research. In addition, we are interested in knowing about individuals outside your field in a narrow sense who you believe deserve to be better known in the phonetic sciences. These could be people who have made noteworthy contributions to related fields or whose work has inspired you in some way.

- Who were your mentors that directed your professional life in the early stages?
- What interesting project of theirs inspired you?
- Which people outside the field of your specialization would deserve to be better known in phonetically oriented communities?

5.5 The Time Machine

Let's take a journey in a metaphorical time machine. In the beginning of your career, what are the main differences you have noticed, compared to now, in terms of research questions, methodological aspects, data collection, or other aspects? What possibilities and exciting developments were there then, and how have they evolved over time? Continuing the journey into the future, where do you see the field heading in the next 10 to 15 years? What emerging trends or technologies do you think will be most influential?

- Comparing the beginning and the end of your career, what are the main differences?
- What were the possibilities and exciting developments then, in your early days, and what are they now?
- Where will we be in 10 to 15 years from now?

5.6 Barriers

It is important to acknowledge the potential barriers that can impede progress. One such barrier is the issue of forgotten or inaccessible publications, particularly those due to language barriers or the lack of (free) online availability. Another challenge is the problem of research findings that go unpublished due to a lack of significant effects. From a different perspective, it is also

important to consider the most common errors in publications and conference presentations that can hinder the advancement of the field. In your opinion, what is the most applied error that you see and how can it be avoided?

- Is it a problem for the progression of the field that some publications are forgotten, or inaccessible due to a language barrier or the lack of (free online) availability?
- Is it a problem for the progression of the field that research findings are not published due to a failure to find significant effects?
- What bothers you the most (this can happen on various levels) as a repeatedly observed shortcoming in publications and conference presentations?

5.7 Concepts

Speech, as a form of communication, is undeniably intriguing. It is remarkably fast despite the complex motor control it demands from humans. In addition, speech production and perception seem to occur almost without conscious effort in most interpersonal interactions, conveying both linguistic and non-linguistic information (for example speaker age). From your perspective, which theoretical concepts related to the properties of speech do you consider the most critical in underpinning our understanding of spoken language? These concepts, which can manifest at various levels, shed light on the intricate mechanisms involved in speech production, perception, and cognition.

- What are for you the most important underlying concepts (max. three) observing and explaining speech?
- Which of these concepts do you consider as possibly useful for other disciplines?
- Which of these concepts require more attention in further research and/or in practical applications?

5.8 Scratching the Surface

There are still limitations in the observation of spoken language. For instance, although we know a lot about laboratory speech, how do laboratory findings translate to real-world scenarios? Do we find the same patterns in less-controlled speech outside laboratories? Additionally, the dominance of English in the field poses challenges. While English is the most extensively described language and has many language models based on it, other languages offer a wealth of phenomena that could question the findings based on English. How problematic is this in your view?

- How well do findings from laboratory speech reflect the ‘outer world’? That is, do we find the same patterns in less-controlled speech outside laboratories?
- Languages offer a wealth of phenomena that might contest many views based on the findings from English (or other well-researched languages). How problematic is this English centricity in your view?

5.9 Thinking across Disciplines

Interdisciplinary approaches may have benefits in many scientific disciplines. In this context, we invite you to explore the advantages and challenges of being an interdisciplinary speech scientist, as well as potential methods and scientific disciplines that would be beneficial in the phonetic sciences and could be integrated into the field.

- What are the advantages and what are the challenges of being an interdisciplinary speech scientist in your view?
- Which methods that you see in other fields, from medicine to sociology, would be beneficial in the phonetic sciences?

- To which scientific discipline should we make a closer connection?

5.10 Communicating the Relevance

Our research has the potential to significantly impact society, but it is often difficult to convey its relevance to the public. How can it be addressed? What do you consider to be a good reason to convince laypeople that your research is not only 'nice to have' but useful for society as well? Finally, has it been easier to convince others of the relevance of our field in the past?

- What is in your view a good reason to convince laymen that your research is not only 'nice to have' but useful for society as well?
- Was it easier to convince others of the relevance of our field in the past (say 50 years ago)?"

6 Editing process

The editing process comprises at least three main steps. First, we established contact with the potential interviewees, and, if willing to participate, we sent them the questionnaire.

Second, once the completed questionnaires were returned, we, as editors, reviewed the text for clarity and formal mistakes. We then returned a typeset version of their responses to the interviewees, along with requests for literature references where needed to enhance consistency across interviews. At this stage, interviewees were also given the opportunity to make final refinements or changes to their responses. We also asked for an informed consent to use their answers in both publications: book and website.

The actual publication represents the third stage. While the interviews may appear consecutively in the book or as an alternative having the ten topics as ten chapters, the website offers a more flexible approach. For instance, individual questions can be selected, allowing users to view and compare responses from multiple interviewees for easier analysis.

7 Selected findings

The editing process is still underway, with final versions expected in summer 2025. As providing coherent and balanced summaries requires a thorough comparative analysis of the responses, we currently present only brief summaries of two selected topics that are easier to report.

The responses to Topic 2 ("The Origins") reveal a broad consensus around key figures and developments in the early history of phonetic sciences. Abbé Rousselot was the most frequently cited scholar credited with initiating modern phonetic research. As for earlier foundational influences predating the 19th century, Wolfgang von Kempelen was mentioned several times as a crucial precursor. When identifying key moments and 'firsts' that shaped the field in its early years, interviewees highlighted three main areas. First, the role of instrumentation, particularly the transformative impact of the spectrograph; second, the development of the International Phonetic Alphabet; and third, the conceptualisation of phonological fundament provided by the German neogrammarians.

The responses to the question about hypothetical Noble Prize nominees in the 20th century revealed a range of prominent figures in the phonetic sciences. Gunnar Fant received the most mentions, cited by three interviewees. Peter Ladefoged, Alvin Liberman, Björn Lindblom and Ken Stevens were each nominated twice. Other individuals mentioned once included Joseph Greenberg, Osamu Fujimura, Eli Fischer-Jørgensen, Mark Liberman and John Ohala.

The Noble Prize question also elicited some unexpected and intriguing responses. One interviewee noted, for example, that "in the early twenties, professor Chaillou of the Institut Pasteur in Paris had proposed Rousselot as a possible Noble prize for physics." (In fact, historical

records show that Rousselot was nominated in 1914 in the category of "Physiology or Medicine", although he did not receive the award.)

Another surprising detail came from an interviewee who worked with Jimmy Gene Harris, a trained phonetician and linguist

> "who – working with an agency – has actually earned a Nobel Prize. Jimmy Gene Harris was awarded a certificate of the Nobel Peace Prize in 1981 'in recognition of devoted service' to the Office of the United Nations High Commissioner for Refugees, who won the prize for their action in the Cambodian refugee crisis of 1980."

8 Conclusion

This preliminary report on our ongoing interview project "Phonetic Sciences in Retrospect" reveals two features that set it apart from other interview-based research and, to our knowledge, represent novel contributions. First, the project was designed and conducted using *written* interviews. Typically, interviews involve *oral* interactions, while transcriptions (or selections of it) can be used for printed versions, sometimes alongside the audio recordings. In contrast, our written interview responses are not the product of a spontaneous or semi-spontaneous (when questions are known before) interaction, providing the opportunity to dive into more details or follow up on specific points during the interview process.

The second methodological peculiarity is that our project involves parallel interviews rather than single interviews in isolation. Although each participant was interviewed individually, and the responses can stand alone as separate interviews, the use of identical questions across all interviewees enables direct and meaningful comparisons between their answers.

An interesting by-product of this interview project is the emergence of anecdotal information as those related to the Nobel Prize that are rarely found in academic publications. However, at the current stage, it is difficult to comment on the content in detail. Preparing summaries of this analytical work would require a level of effort that we could not provide before the actual publication. Nevertheless, we anticipate recurring themes, including consensus on pioneering work and reflections on key historical changes. These can serve as orientation lines for future research, as well as a critical lens through which researchers might reassess their own academic histories.

9 Acknowledgements

The authors thank all scholars who participated in this interview project. This publication was supported by the Cooperatio program of Charles University, Linguistics research area, implemented at the Faculty of Arts of Charles University.

References

[1] KNOTT, E., A. H. RAO, K. SUMMERS, and CH. TEEGER: Interviews in the social sciences. *Nature Reviews Methods Primers* 2, 73, 2022. https://doi.org/10.1038/s43586-022-00150-6.

[2] SPRADLEY, J. P.: *The Ethnographic Interview*. New York: Holt, Rinehart and Winston, 1979.

[3] DE FINA, A.: *The ethnographic interview*. In: K. Tusting (ed.): *The Routledge Handbook of Linguistic Ethnography*. Routledge, 2019. https://doi.org/10.4324/9781315675824

[4] KIMBER, L. R., and E. DAIRON: *Ethnographic interviews*. In: L. R. Kimber, F. Badache, and L. Maertens (eds.): *International Organizations and Research Methods: An Introduction*, pp. 48–55, University of Michigan Press, 2023.

[5] GORDON, M. J.: Interview with William Labov. *Journal of English Linguistics* 34(4), pp. 332-351, 2006.

[6] BELL-BERTI, F.: Interview with Katherine Harris, 2001. https://www.aip.org/history-programs/niels-bohr-library/oral-histories/33686
[7] KAYE, A.S.: An interview with Peter Ladefoged. *Journal of the International Phonetic Association*, 36(2), pp. 137–144, 2006. doi: https://doi.org/10.1017/S0025100306002519
[8] FURUI, S.: An oral history conducted in 2021 by M. A. Hellrigel, IEEE History Center, Piscataway, NJ, USA. Interview #872 for the IEEE History Center, The Institute of Electrical and Electronics Engineers, Inc. https://ethw.org/Oral-History:Sadaoki_Furui
[9] ASHBY, M., and J. MCELVENNY: The emergence of phonetics as a field. In: J. McElvenny (ed): *Interviews in the history of linguistics: Volume I (History and Philosophy of the Language Sciences 6)*. Berlin: Language Science Press, 2022. doi: 10.5281/zenodo.7092391
[10] Haskins Laboratories Oral Histories and Transcriptions-bak. Compiled by Carol Fowler and Donald Shankweiler. Transcripts and oral histories from: Alan Cooper, Alice Dadourian, Arthur Abramson, Carol Fowler, Craig Cooper, Donald Shankweiler, Kathy Harris, Len Katz, Lloyd Morrisett, Maxine Singer, Michael Studdert-Kennedy, Michael Turvey, Phil Rubin, Cyrus Bacchi, Stuart L. Marcus and Nigel Yarlett. https://haskinslabs.org/about-us/history/oral-histories-transcriptions-bak
[11] GURURAJA, S., A. BERTSCH, C. NA, D. G. WIDDER, and E. STRUBELL: To build our future, we must know our past: Contextualizing paradigm shifts in Natural Language Processing. *Proc. Conference on Empirical Methods in Natural Language Processing*, 16 pp., 2023. https://aclanthology.org/2023.emnlp-main.822/
[12] TROUVAIN, J.: 100 years of diversity in the phonetic sciences – Louise Kaiser, Ilse Lehiste and Anne Cutler. *Proc. 6th Workshop on History of Speech Communication Research*, Budapest, pp. 9-14, 2024. doi: 10.21437/HSCR.2024
[13] TROUVAIN, J.: On the evolution of ICPhS between 1932 and 2019. *Proc. 20th International Congress of Phonetic Sciences*, Prague, pp. 3236-3240, 2023. https://www.internationalphoneticassociation.org/icphs-proceedings/ICPhS2023/full_papers/856.pdf