

THE JUNTA DE EDUCAÇÃO NACIONAL, ARMANDO DE LACERDA AND THE EMERGENCE OF EXPERIMENTAL PHONETICS IN PORTUGAL

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Abstract: The work of the Junta de Educação Nacional from its creation in 1929 and the continuation of its work from 1936 by the body which replaced it, the Instituto para a Alta Cultura, meant that during the interwar period Portugal benefited from the existence of an institution for the planning and funding of science, similar to circumstances in other countries in Europe and North America. A number of Portuguese scientists were able to take advantage of scholarships granted by these bodies to study experimental phonetics at some of the most advanced research centres in Europe during the era, among them Armando de Lacerda, who in 1936, with the support of the Instituto para a Alta Cultura, set up the first experimental phonetics laboratory in Portugal, at the University of Coimbra – the Coimbra Phonetics Laboratory. The laboratory's journal, the *Revista do Laboratório de Fonética Experimental da Faculdade de Letras da Universidade de Coimbra*, was published from 1952, and as its editor, Lacerda used it as a vehicle for disseminating the findings of the research carried out at the laboratory. The eight volumes of the *Revista* which were published contain works by several prominent 20th-century phoneticians, such as Peter Ladefoged, Göran Hammarström and Peter Strevens. Their articles appeared in the journal at an early stage in their careers, indicating that they sought the recognition that the journal, the mouthpiece of the laboratory and its head, both of worldwide renown in the field of phonetics, conferred on them.

1 Introduction

The aim of this chapter is to provide an understanding of the importance of the role of the Junta de Educação Nacional (JEN) – National Board of Education and the Instituto para a Alta Cultura (IAC) – the Institute for High Culture, the first bodies set up in Portugal to plan and fund work in the field of science, in the drive to establish experimental phonetics as a field of study and research in Portugal. We identify the first scientists to hold scholarships in the field of phonetics provided by the board and the laboratories abroad where they worked, and highlight the prominent role played by Armando de Lacerda in this process.

In the second part of the chapter we revive the memory of the *Revista do Laboratório de Fonética Experimental da Faculdade de Letras da Universidade de Coimbra* – Journal of the University of Coimbra Faculty of Letters Experimental Phonetics Laboratory, which Lacerda edited from 1952, by tracing its history. We examine the eight volumes of the journal which were published, and provide an insight into how it operated, identify authors and articles published, and gauge the importance of the journal for the work of the Coimbra Phonetics Laboratory and the impact it had on the academic careers of those who contributed articles. The importance of this is clear when we consider the international standing enjoyed during the era by Lacerda and the laboratory he headed, and at the same time the way in which the memory of the *Revista* was consigned to oblivion by historians.

2 The Junta de Educação Nacional (1929–1936) and the Instituto para a Alta Cultura (1936–1952): planning and funding experimental phonetics in Portugal

The academic career path followed by the first experimental phonetician in Portugal, Armando de Lacerda (1902–1984), and the establishment of the first experimental phonetics laboratory in Portugal, at the University of Coimbra Faculty of Letters, with Lacerda as its founder and head from 1936 to 1979, is closely tied to the work of the JEN and its successor, the IAC.

Set up by the military dictatorship (1926–1933) in January 1929, the JEN was the first body whose role was to plan and fund science in Portugal. Influenced by the work of similar institutions at the international level, especially a Spanish institution, the Junta para Ampliación de Estudios e Investigaciones Científicas (JAE) – Board for the Advancement of Scientific Studies and Research (1907–1939) and its Belgian counterpart, the Fonds National de la Recherche Scientifique (FNRS) – National Fund for Scientific Research, the JEN sought to foster the Europeanisation of science in Portugal. This was to be achieved by means of an established science policy: 1) the granting of long-term scholarships at prestigious study and research centres abroad, especially in France, Germany and the UK, with a view to enabling Portuguese researchers to keep abreast of the latest developments in the field; 2) the granting of scholarships for study and research in Portugal, with a view to enabling scientists to continue the studies they had begun abroad; 3) the setting up of new laboratories and the provision of funding for existing laboratories, thus enabling, by virtue of the scholarships granted to scientists at these laboratories, the continuation of research they had begun abroad; 4) the dissemination at the international level of the results of scientific research carried out at home, in particular by providing funding for scientific publications and papers presented by Portuguese researchers at international conferences, as well as providing financial support for the holding of such meetings in Portugal [7], [9].

Experimental phonetics was one of the fields of knowledge in which planned intervention by the JEN and IAC is most evident. It should be noted that the policy of the former was based on the concept of giving priority to funding disciplines which were new to Portugal, which was the case with experimental phonetics. In keeping with this policy, during the period of its operation from 1929 to 1936, the JEN awarded the following scholarships abroad in this field of knowledge:

Table 1. Junta de Educação Nacional holders of scholarships abroad in the field of experimental phonetics (1929–1936). Source: Arquivo do Camões, Instituto da Cooperação e da Língua, I.P. Processos individuais dos bolseiros. In the columns "Profession/scientific affiliation" and "Age", the profession/scientific affiliation and age of the scholarship holder are indicated when they were granted the scholarship; "Length of scholarship " means the total length of the scholarship (represented by the letter "T" and expressed in months: "m"), the number of extensions (represented by the letter "E") and their length, and the financial years during which the (new) scholarship and extensions were granted.

<i>Name of scholarship holder</i>	<i>Profession/scientific affiliation</i>	<i>Age</i>	<i>Target institution/ Supervisor</i>	<i>Length of scholarship</i>
Armando Nobre de Gusmão	Private secondary school teacher at Colégio Nun'Alvares, Évora	25	Centro de Estudios Históricos da Junta para Ampliación de Estudios y Investigaciones Científicas, Madrid (Tomás Navarro Tomás)	3m (1936)+ E: 3m (1936) T: 6m

Armando Soeiro Moreira de Lacerda	–	28	University of Hamburg (Giulio Panconcelli-Calzia); Institute of Phonetics, University of Bonn (Paul Menzerath)	8m (1930/31)+ 1 st E: 1m (1931/32) 2 nd E: 9m (1931/32) 3 rd E: 11m (1932/33) 4 th E: 1m (1932/33) 5 th E: 2m (1933/34) T: 32m
Elisa Figueira	Head of Liceu da Infanta D. Maria, Coimbra	32	University College London (Daniel Jones)	3m (1931/32)+ E: 2m (1931/32) T: 5m
José Joaquim de Oliveira Guimarães	Professor of the Faculty of Letters of the University of Coimbra	52	University of Hamburg (Giulio Panconcelli-Calzia); Institute of Phonetics, University of Bonn (Paul Menzerath)	3m (1929/30)
Manuel Inácio Duarte Júnior	Secondary school teacher at Liceu de João de Deus, Faro	38	Institute of Phonetics of the University of Paris	5m (1930/31)
Rodrigo de Sá Nogueira	Chief Officer of the Secretariat of the Academia das Ciências de Lisboa	37	Institute of Phonetics of the University of Paris; Centro de Estudios Históricos da Junta para Ampliación de Estudios y Investigaciones Científicas, Madrid (Tomás Navarro Tomás)	4m (1929/30)+ E: 12m (1930/31) T: 16m

Some scholarship holders, such as Manuel Inácio Duarte Júnior, studied experimental phonetics in order to improve their language teaching. The internships of Rodrigo de Sá Nogueira and Armando Nobre de Gusmão at the Centro de Estudios Históricos of the JAE were marked by their collaboration with Tomás Navarro Tomás on the ‘Atlas Lingüístico da Península Ibérica’ [2: 70], [12]. Following his internships in Paris and Madrid, Rodrigo de Sá Nogueira’s work in the field of phonetics is also marked by the publication of two works [15], [16]. While he was in Germany, José Joaquim de Oliveira Guimarães took the opportunity to attend the 2nd International Congress of Phonetics held in Bonn in 1930. During his internship in Hamburg under the supervision of Panconcelli-Calzia, it should be noted that he was able to review the work entitled *Fonética Portuguesa* he had published in 1927 [11], promising JEN leaders that the errors he had found would be corrected in the 2nd edition of the book, which was revised and expanded¹.

¹ Arquivo do Camões, Instituto da Cooperação e da Língua, I.P. Caixa 0494, Processo 14.

The above shows that the various scholarship holders benefitted from their internships in different ways. Among them, Armando de Lacerda is notable for his outstanding contribution to experimental phonetics. There is evidence as early as 1930 to support the proposition that he played an important role in the field of experimental phonetics in Portugal, when he completed his degree in Germanic Philology from the Faculty of Letters of the University of Porto. In August of that year, he applied for a scholarship from the JEN for the first time in order to undergo specialised training in experimental phonetics in Germany and his request was granted. In support of his application, the opinion expressed by the professors of Germanic Philology of the Faculty of Letters of the University of Porto was crucial: one of them, a former student of both Daniel Jones at University College London and Giulio Panconcelli-Calzia in Hamburg, was Lacerda's professor, Luís Cardim, who in a letter sent to JEN stated:

“A graduate of this faculty, Armando Soeiro Moreira de Lacerda performed outstandingly in his studies and showed himself as perspicacious with regard to the subject during the course in Germanic Philology, which was demonstrated by the excellent marks he was awarded, besides the fact that he also shone at meetings associated with the university, at which his acumen on the course was fully borne out. In addition, during the academic year 1929–30, he carried out some experimental work at the phonetics laboratory of the faculty which demonstrated his great interest and skills in this field of research. For all these reasons, the signatories, professors of Germanic Philology at the Faculty of Letters of the University of Porto, are assured that both the applicant and the field of science in Portugal as a whole will draw benefit from the scholarship in question, which is for one academic year, at a well-equipped and well-organised German phonetics laboratory such as those indicated by the applicant”².

His sojourn in Germany ended up by greatly exceeding the single academic year mentioned, as in the event Lacerda was granted an extension to his scholarship by the JEN which enabled him to work at laboratories in Hamburg and Bonn from 1930 until 1933. His 32-month internship in Germany enabled him to gain recognition at the international level, marking a crucial stage in his career in the field of science [10].

However, Lacerda felt that the value of his work was not sufficiently recognised by Panconcelli-Calzia at the University of Hamburg. So, at the invitation of Paul Menzerath, he moved to the Bonn Institute of Phonetics. Later, in 1954, recalling his first meeting with Menzerath and its importance for his career, Lacerda wrote:

“More than 20 years have passed since that beautiful autumn morning when I first met with the head of the University of Bonn Phonetics Institute, but I still remember vividly the impression he made, with his kind and encouraging welcome. I had previously worked at the Experimental Phonetics Laboratory of the University of Hamburg, headed by another great figure in the field of experimental phonetics, Panconcelli-Calzia, and I now sought to progress in my career under the guidance of Paul Menzerath. After a brief exchange, during which I was able to inform Menzerath about the studies I had carried out and the findings I had obtained, his face lit up and I could see he was fired with enthusiasm. A few days later we embarked on a piece of research work – master and student – as at Menzerath's invitation I was to be his research assistant. I was of course delighted with the arrangement and my admiration for such generous inspiration was boundless. About two years later the results of this research were published with the title of *Koartikulation, Steuerung und Lautabgrenzung*” [6].

In this work Menzerath and Lacerda coined the term ‘coarticulation’, one of the core concepts of phonetics, and while in Bonn in 1932, Lacerda invented the polychromograph and developed chromography as an advanced method of research in the field of phonetics, which

² Arquivo do Camões, Instituto da Cooperação e da Língua, I.P. Caixa 1337, Processo 3, Documento 1.

overcame the limitations of the existing method, kymography. Once again, the support of the JEN proved vital, funding provided by the institution enabling the polychromograph to be built in the workshops of the Bonn Phonetics Institute [10: 35], [8].

While gaining prestige among the international community of phoneticians for his presentation of the polychromograph at the 1st International Congress of Phonetic Sciences (Amsterdam, 1932) and the publication of the above-mentioned work entitled *Koartikulation, Steuerung und Lautabgrenzung* (1933), Lacerda carried on negotiations with JEN heads with a view to the creation of an experimental phonetics laboratory in Portugal. Also taking part in these negotiations was the Faculty of Letters of the University of Coimbra, whose head wrote to the Secretary General of the JEN in the following terms:

“This faculty has long recognised the need for and nurtures the ambition for the establishment of an experimental phonetics laboratory, a facility which is constantly called for as being of essential importance by professors of classical, Romance and Germanic philology.

Seeing that the National Board of Education, which is always ready to meet the most pressing needs of those involved in teaching, harbours the highly commendable intention of founding an institution of this nature in Portugal, I am instructed by the board of this faculty to contact you and inform you of how deeply committed the faculty is to achieving the establishment of such a body on its premises, indeed having earmarked some time ago two good rooms for the purpose”³.

The achievement of this objective necessarily involved the acquisition of phonetics instruments abroad and their importation into Portugal. Lacerda and the JEN sought to facilitate this process, but government departments’ response was bureaucratic and unhelpful: in 1932, on returning from Amsterdam to Porto with experimental phonetics instruments in his luggage, among which the polychromograph, customs officers in Porto prevented him from taking them with him, threatening to auction them off if an exemption from customs duties was not obtained within two weeks. It was only thanks to the mediation of the JEN and an explanation by the phonetician to the head of the Porto customs department that this outcome was avoided⁴.

In the summer of 1933 Armando de Lacerda returned to Portugal for good, when he learnt that he had been chosen by the JEN to direct operations for the creation of a phonetics laboratory. The scholarship he had been granted by the JEN to study and work in Germany was followed by another, covering the period from October 1933 to December 1936, with this basic aim, as well as the continuation of research he had begun abroad. During this period of just over three years, he encountered other difficulties, mainly publishing articles in Portuguese journals, especially the *Boletim de Filologia*, and attending some domestic scientific meetings.

Having overcome the difficulties involved in setting up the laboratory, not helped by the meagre resources his scholarship afforded, which meant that he was not able to dedicate all his time and energy to the project, on 10th September 1936, Decree-Law no. 26,994 was finally passed, providing for the creation of the Experimental Phonetics Laboratory of the University of Coimbra Faculty of Letters, funded by the Instituto para a Alta Cultura [9: 185–187].

³ Arquivo do Camões, Instituto da Cooperação e da Língua, I.P. Caixa 1287, Processo 1, Documento 5.

⁴ Arquivo do Camões, Instituto da Cooperação e da Língua, I.P. Caixa 1337, Processo 3, Documentos 64, 65, 67, 68 e 71.

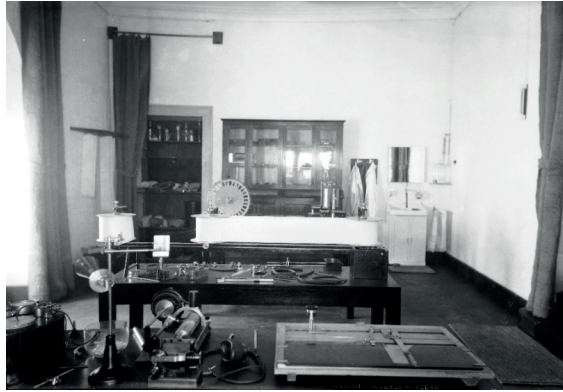


Figure 1. Laboratory room at the first Coimbra Phonetics Laboratory (1937). Below left is the polychromograph. Source: Museu da Ciência da Universidade de Coimbra.

3 The importance of the *Revista do Laboratório de Fonética Experimental de Coimbra* and its lack of recognition

From 1952, the Coimbra Experimental Phonetics Laboratory published its own periodical. In the preface to the first issue, Lacerda set out the aims of the journal.

“As its name implies, this new publication is intended to be the mouthpiece of the Experimental Phonetics Laboratory of the Faculty of Letters of the University of Coimbra; however, this does not mean that only work carried out at the centre will be accepted for publication. The journal should, nevertheless, reflect, as far as possible, the work that has been assigned by higher authorities to this research centre. It should therefore disseminate publicly the findings of phonetics research covering the following topics:

- a) Standard Portuguese speech;
- b) Portuguese regional speech varieties;
- c) Foreign languages or speech varieties;
- d) Psychologically determined speech varieties – 1) Used by normal individuals; 2) Used by abnormal individuals;
- e) Speech varieties in accordance with normal and abnormal speech of the speech organs;
- f) New laboratory techniques in the field of experimental phonetics;
- g) The teaching of living languages (pedagogical phonetics).

Priority will be given to the publication of the findings of studies carried out at the laboratory by researchers from Portugal or abroad and articles on work carried out abroad will also be accepted for publication, thereby facilitating the process of scientific exchange essential for the development of the phonetic sciences. [...]

This programme will be complemented, wherever possible, with the inclusion of reviews and summaries of work carried out in the field and news about scientific work, events and other developments at similar research centres.

We are also considering including phonetics works that have already been published but cannot be accessed by interested parties and for which there is a need for a new edition due to their overriding importance” [5: 5–6].

Table 2 provides a summary of the index of each of the eight volumes of the journal, which appears at first glance to be in accordance with the aim expressed by Lacerda for the journal to closely reflect the purpose and the daily work carried out at the Coimbra Experimental Phonetics Laboratory.

Table 2. Index of the *Revista do Laboratório de Fonética Experimental da Faculdade de Letras da Universidade de Coimbra*. Source: [13].

<i>Volume</i>	<i>Year</i>	<i>Author</i>	<i>Title of article</i>
I	1952	Armando de Lacerda	Revista do Laboratório de Fonética Experimental
		Göran Hammarström	Sur la durée des phonèmes en suédois
		Göran Hammarström	Le chromographe et le triangle tonométrique de Lacerda
		Armando de Lacerda	Facteurs de la variation élocutive
		Armando de Lacerda and Göran Hammarström	Transcrição fonética do Português normal
		Armando de Lacerda	Laboratório de Fonética Experimental da Faculdade de Letras da Universidade de Coimbra
II	1954	Peter D. Strevens	Some observations on the Phonetics and Pronunciation of Modern Portuguese
		Armando de Lacerda and Augusto Gonçalves	O problema do ensino da expressão a indivíduos com uma audição muito deficiente ou nula
		Manuel Companys	Notes sur les finales atones portugaises après consonne sourde
		Armando de Lacerda	Recolha, arquivo e análise de falares regionais portugueses
		Göran Hammarström	Crítica – Holger Sten, <i>Les particularités de la langue portugaise</i>
		Peter D. Strevens	A note on the Department of Phonetics in the University College of the Gold Coast
		Armando de Lacerda	Professor Doutor Paul Menzerath
III	1956	Armando de Lacerda and Peter D. Strevens	Some Phonetic Observations using a Speech-Stretcher
		Göran Hammarström	Problèmes Phonométriques, et autres, concernant la durée en Suédois
		Armando de Lacerda and John Morris Parker	Variantes Fonéticas de Falares Regionais do Distrito de Beja
		Armando de Lacerda	Transcrição indirecta de Aspectos Fonéticos Particularizantes
IV	1958	Armando de Lacerda and Nelson Rossi	Particularidades Fonéticas do Comportamento Elocucional do Falar do Rio de Janeiro
		Elizabeth Uldall	American “Molar” R and “Flapped” T
		Armando de Lacerda and John Morris Parker	Variantes Fonéticas de Falares Regionais do Distrito de Beja (continuado do Vol. III)
		Peter D. Strevens	The Performance of “PAT”
		Armando de Lacerda and Manuel Companys	Notes pour l’Étude de l’Activité Nasale en Français
		Nelson Rossi	Laboratório de Fonética na Bahia
V	1960	Armando de Lacerda and John Morris Parker	Variantes Fonéticas de Falares Regionais do Distrito de Beja (continuado do Vol. IV)
		Peter Ladefoged	The nature of vowel quality
VI	1966	Armando de Lacerda and Brian F. Head	Análise de Sons Nasais e Sons Nasalizados do Português
		Ernest F. Haden and Brian F. Head	An Instrumental Study of Duration in French
		Jorge de Moraes Barbosa	O Problema Linguístico da Entoação

VII	1970	Ronald C. Turner	Peninsular and Brazilian Portuguese: a Preliminary Study in Perceptibility
		Armando de Lacerda	Objectos Verbais e Significado Elocucional. Toemas e Entoemas. Entoação
VIII	1975	Armando de Lacerda	Objectos Verbais e Significado Elocucional. Toemas e Entoemas. Entoação (continuado do Vol. VII)

The propensity of the Coimbra Experimental Phonetics Laboratory for attracting scientists from abroad to collaborate on work carried out there, and its lack of allure for Portuguese researchers, are demonstrated by the list of published articles. Of the 13 authors who had articles published in the journal, only Armando de Lacerda himself, Jorge de Moraes Barbosa and Augusto Gonçalves (a teacher at the Casa Pia de Lisboa) were of Portuguese nationality.

Among the ten authors from other countries, only Peter Ladefoged and Ernest F. Haden did not carry out research at Lacerda's laboratory. The publication of the paper entitled "The nature of vowel quality", based on the doctoral dissertation presented by Peter Ladefoged at the University of Edinburgh in 1959, provides an example of the publication of a piece of work carried out elsewhere. Meanwhile, the publication of notes on the Department of Phonetics in the University College of the Gold Coast by Peter D. Strevens and the Laboratory of Phonetics in Bahia by Nelson Rossi provides evidence of Lacerda's stated aim to report on scientific work carried out, events held and other items associated with similar research centres.

The index predominantly features publications on the findings of research carried out at the Coimbra Phonetics Laboratory, some of it contributing to the academic career progress of the authors: for example, here is the opinion of the head of the Institute of Phonetics of the University of Strasbourg, Georges Straka, expressed to the head of the Faculty of Letters of the University of Uppsala in 1957:

"It is my privilege to be able to send you the report you requested on the scientific qualifications of Mr. Göran Hammarström and his competence in the matter of appointment to the chair of 'précepture' in phonetics at the Faculty of Letters of Uppsala University. [...]"

His research on the length of phonemes in Swedish in Revista do Laboratório de Fónica Experimental of the University of Coimbra (Vol. I, 1952, and Vol. III, 1956: abstract of the initial piece in Orbis, Vol. I, 1952) is of great general interest in the field of Linguistics. The findings he has obtained so far exceed those achieved by previous researchers and this is due to the excellent chromographic method used by Mr. Hammarström. [...]"

In conclusion, given the excellent standard of his work, I have no hesitation in recommending Mr. Hammarström for the post. He seems to me well suited to occupy the chair of phonetics"⁵.

Göran Hammarström was the phonetician from abroad who had the largest number of articles published in *Revista do Laboratório de Fónica Experimental de Coimbra* (five as either author or co-author), followed by Peter D. Strevens (the author or co-author of four articles); this was surpassed only by Armando de Lacerda himself, who had a total of 17 articles published as either sole author or principal author. The presence of the Swedish phonetician at the Coimbra Phonetics Laboratory, where as a fellow of the University of Uppsala and the Instituto para a Alta Cultura he worked for 20 months between 1950 and 1954, also enabled him to provided assistance with the publication of the first issues of the journal. In this regard, in his memoirs he notes:

⁵ Armando de Lacerda Archive (Ferraz de Lacerda, Lda. Porto). Göran Hammarström Documents. (Underlined in the original. Translated from the French by the author).

“When I came to Coimbra in 1950 Lacerda was just starting his journal. I helped him with obtaining articles, negotiating with printers and proofreading for the first two volumes published in 1952 and 1954. We often talked about the editing of the ‘Revista’ during the months I spent in Coimbra. I believe that the journal contains many interesting articles and it has probably been somewhat overlooked” [3: 88].

As evidence of the help provided and collaboration by Hammarström on the publication of Volume II of the journal, in 1954 Armando de Lacerda, awaiting his return to the Coimbra Phonetics Laboratory, wrote the following to him:

“I received the article and a letter from Manuel Companys a few days ago. Since it contains many changes that have to be made, I cannot yet deliver it to the printers. Also the article by Dr. Strevens on the Gold Coast has arrived, and it is much better in this regard. You will be able to see for yourself. I'm going to try to send a copy of the journal to Professor Selmer today. We were together in Amsterdam or Gand at a congress. [...] Please do not forget to bring your critique of Sten's paper for the journal”⁶.

During the 1950s, when the international prestige enjoyed by the Coimbra Phonetics Laboratory and its head was at its peak, the journal was published without a break every two years, and featured a number of articles by scientists from abroad who were collaborating with the laboratory. It should be noted that most of these scientists were either at an early stage in their career or just embarking on their career, and sought a learning experience at Coimbra, and especially recognition, which both an internship at the laboratory and the publication of articles in the journal conferred on them. To illustrate this, let us consider the articles by Göran Hammarström which were published in 1952, while he was studying for a PhD, which were published from 1953 following the award of his doctorate, and in 1955 he founded the Department of Phonetics at Uppsala University; later, in 1965, he became the first professor of Linguistics in Australia at Monash University [10: 62]. Also Peter D. Strevens, who became a central figure in the field of “British Applied Linguistics” [1], initially published in the journal when he was still at the University College of the Gold Coast. Similarly, Peter Ladefoged, who had a paper published in the *Revista* in 1960, shortly after receiving his PhD at the University of Edinburgh, while only in 1965 did he become professor of phonetics at the Department of Linguistics at the UCLA [4].

Although described as ‘superbly installed and very well equipped’ in 1955 by Harvard professor Francis M. Rogers [14: 284–285], the laboratory headed by Lacerda lacked some vital research tools, and benefited from the sojourn of collaborators from abroad, who were able to plug some of these gaps. For example, the article entitled “Some Phonetic Observations using a Speech-Stretcher”, published in Volume III of the journal by Lacerda and Strevens. While from the 1940s Peter Strevens had sought to work at the laboratory in Coimbra with the Portuguese phonetician, this ambition was only realised in the fifties, and to enable the publication of the article referred to above the British phonetician brought with him from the Department of Phonetics of the University College of the Gold Coast, of which he was head, a speech-stretcher, an instrument that the Coimbra Phonetics Laboratory did not have⁷.

In the sixties and seventies, the journal was affected by the dwindling interest in the Coimbra Phonetics Laboratory from scientists abroad, resulting in volumes only being published on an irregular basis. However, its importance was still recognised even after Lacerda's retirement in 1972 and the beginning of the dismantling of the laboratory. For example, the UCLA Phonetics Laboratory contacted Coimbra in 1977 requesting a subscription to the journal.

⁶ Armando de Lacerda Archive (Ferraz de Lacerda, Lda. Porto). Göran Hammarström Documents. Letter from Armando de Lacerda to Göran Hammarström dated 22nd May 1954.

⁷ Arquivo do Camões, Instituto da Cooperação e da Língua, I.P. Caixa 1320, Processo 16.

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DEPARTMENT OF LINGUISTICS
LOS ANGELES, CALIFORNIA 90024

June 14, 1977

Dr. Armando de Lacerda
Laboratório de Fonética Experimental
Faculdade de Letras, Universidade de Coimbra
Paço das Escolas
Coimbra, Portugal

Dear Dr. Lacerda:

I have recently undertaken a project entitled, "A Bibliographical Survey of Spanish and Portuguese Phonetics" under the direction of Professors Stanley L. Robe and Peter Ladefoged. As the title suggests the project is a survey of published research on Spanish and Portuguese phonetics. The survey will also review the status of ongoing phonetic research on these languages. Currently I am in the process of contacting individuals in the United States and abroad who are presently doing research on Portuguese phonetics. I hope to establish a link with these individuals and our Phonetics Laboratory in a cooperative exchange of data and ideas. I am particularly interested in the research being carried out at your lab. Would you or any of your students be interested in participating in such an exchange program?

Reviewing the material I have researched for the "Bibliographical Survey" I frequently came across the name of the journal your lab publishes, the Revista do Laboratório de Fonética Experimental. I have found the articles in the Revista to be quite useful and informative. Since this journal is not available at this university our lab would like to receive information concerning subscription to the Revista.

In addition to the "Bibliographical Survey", I have also been working on "An Acoustic Analysis of Brazilian Portuguese Vowels" under the direction of Professor Peter Ladefoged. The study involves an analysis of the vowels [i e ɛ a ɔ o u] as spoken by 9 male speakers of Brazilian Portuguese. The speakers are from the following areas: Espirito Santo(2), São Paulo(4), Rio de Janeiro(2) and Bahia(1). A spectrographic examination and use of the PDP-12 computer of the UCLA Phonetics Laboratory for obtaining the vowel formants is already underway.

I am looking forward to hearing from you soon.

Sincerely yours,

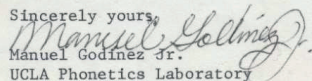

Manuel Godínez Jr.
UCLA Phonetics Laboratory

Figure 2. Letter from Manuel Godínez Jr. (UCLA) to Armando de Lacerda stating "I have found the articles in the *Revista* to be quite useful and informative" for the project entitled "A Bibliographical Survey of Spanish and Portuguese Phonetics", and consequently he signed up for a subscription to the journal. Source: Armando de Lacerda Archive (Ferraz de Lacerda, Lda. Porto).

Besides providing the principal means for the dissemination of the findings of research carried out at the Coimbra laboratory, the *Revista* also provided a means for the laboratory to

receive other publications of a similar nature through a system of exchange. An example of how this kind of research network was constructed can be seen in the letter that Mario Ferreccio Podestá, editor of the *Boletín de Filología* of the University of Chile, sent to Lacerda in August 1975.

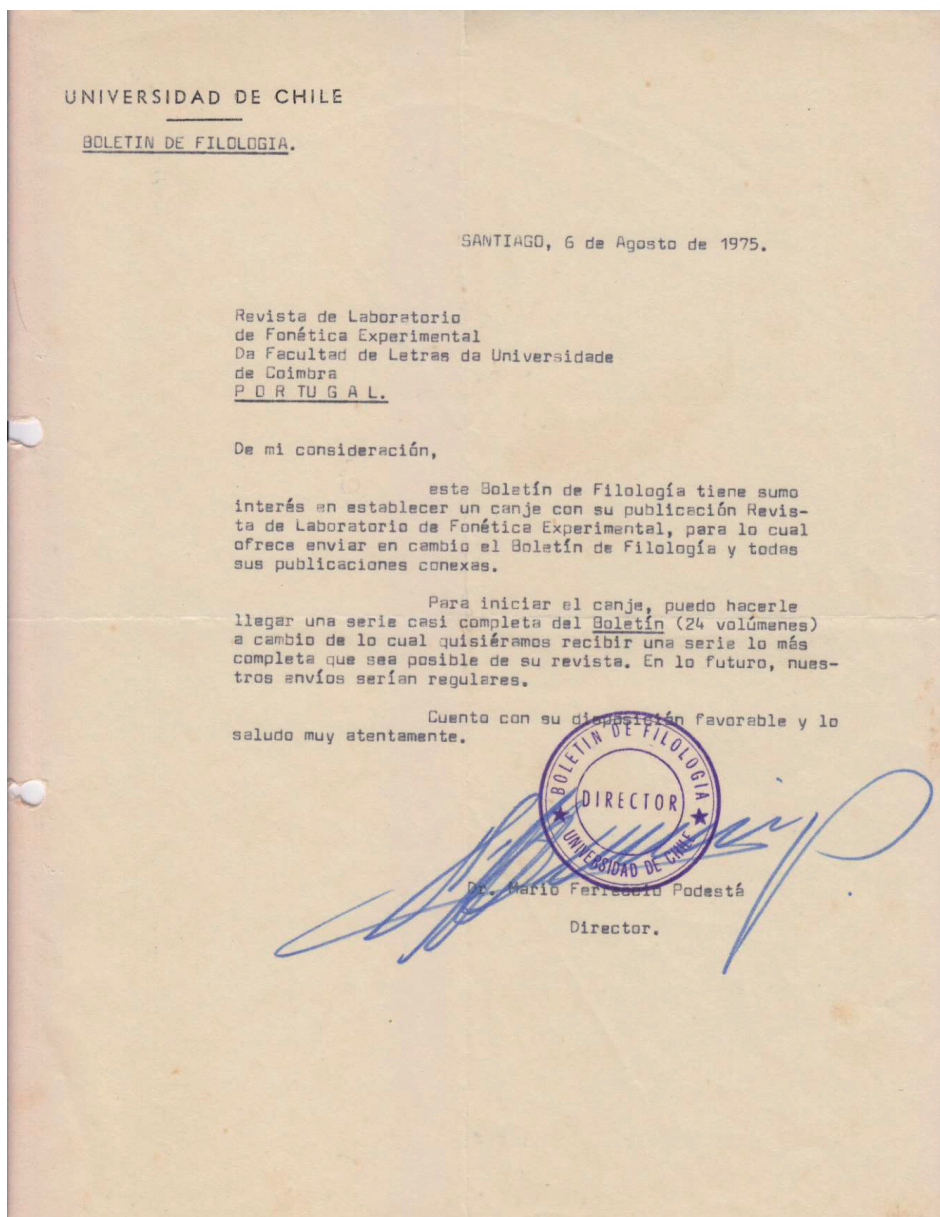


Figure 3. Letter from Mario Ferreccio Podestá (University of Chile) offering the Coimbra Experimental Phonetics Laboratory an almost complete set of issues of the *Boletín de Filología* in exchange for as complete as possible a set of issues of the *Revista do Laboratório de Fonética Experimental*. Source: Armando de Lacerda Archive (Ferraz de Lacerda, Lda. Porto).

4 Conclusion

The history of experimental phonetics in Portugal is closely bound up with the action of the first Portuguese institution for the planning and funding of science. Following in the footsteps of its Spanish and Belgian counterparts, the Junta de Educação Nacional was able to prioritise the granting of scholarships to scientists to study and work at some of the most advanced experimental phonetics centres of the time. Examples are the internships of Portuguese researchers between 1929 and 1936 at University College London (under the supervision of Daniel Jones) the University of Hamburg (under the supervision of Giulio Panconcelli-Calzia), at the Institute of Phonetics of the University of Bonn (under the supervision of Paul Menzerath), the Centro de Estudios Históricos of the Junta para Ampliación de Estudios y Investigaciones Científicas (under the supervision of Tomás Navarro Tomás) and the Institute of Phonetics of the University of Paris.

Among JEN scholarship fellows, Armando de Lacerda stands head and shoulders above the rest in this particular field of knowledge. The international recognition he gained in Germany from 1930 to 1933 as the inventor of the chromographic method and co-author of *Koartikulation, Steuerung und Lautabgrenzung* enabled him to benefit from funding provided by the Instituto para a Alta Cultura to set up the first experimental phonetics laboratory in Portugal and engage scientists from abroad as collaborators at the laboratory. These phoneticians had articles published in the *Revista do Laboratório de Fonética Experimental* from 1952, taking advantage of great international prestige enjoyed by Lacerda and the laboratory he headed to disseminate their work and further their academic careers. Following Lacerda's retirement in 1972 and the closure of the laboratory in 1979, the *Revista* and the work of the laboratory were consigned to oblivion. As we have argued in another paper, after the advent of democracy in Portugal in 1974, Portuguese historians mainly focused their attention on scientists who had been persecuted during the dictatorship from 1926 to 1974. As this was not the case with Armando de Lacerda, the tendency was for historiographers to ignore his work and for his legacy to be forgotten [7].

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