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Intelligibility and identity: From teaching pronunciation to training for spoken language variation

Alice Henderson

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Manuscrit HDR

Pour obtenir le diplôme d'
**HABILITATION A DIRIGER DES
RECHERCHES**

Spécialité : Etudes anglophones

Présenté par

Alice HENDERSON

**Intelligibility and identity:
From teaching pronunciation
to training for spoken language
variation**

Volume 1 – Document de synthèse

HDR soutenue publiquement le 28 janvier, 2021,
devant le jury composé de :

Mme. Laura ABOU-HAIDAR

Maître de Conférences-HDR, Université Grenoble-Alpes, Rapporteur

M. Nicolas BALLIER

Professeur, Paris Diderot - Paris 7, Rapporteur

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Professeur, Iowa State University, Membre

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Professeur, Université Savoie-Mont Blanc, Président

Mme. Shona WHYTE

Professeur, Université Côte d'Azur, Rapporteur

UNIVERSITE SAVOIE MONT BLANC

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For Paul.

... in a perfect world, [...] if speech is intelligible, it should be acceptable. In fact, that is not the case.–
R. Thomson

[Identity] is not something that one can have, or not; it is something that one does. – R. Jenkins

Was immer du tun kannst oder zu können glaubst, fang an. In der Kühnheit liegt: Genie, Kraft und
Magie. – J.W. Goethe

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Organisation of Volumes 1 & 2

This application file includes two volumes. Volume 1 primarily includes the synthetic overview of my research, followed by a bilingual glossary of terms and acronyms, a list of figures and a list of tables. The overview is divided into four parts, with Sections (e.g., Part II, Section 3), sections (e.g., section 3.1), and sub-sections (e.g., 3.1.a.). A two-part bibliography, organised chronologically, provides the list of my publications cited in this document and the list of works by others which are cited here. My publications have been given a code to simplify intratextual references, e.g., (AH2008_02). Works by others are presented according to APA7 style guidelines. A key word index is provided before the two appendices: my Curriculum Vitae in French as well as a French summary of this overview.

Volume 2 consists of a compilation of all my publications, in chronologically descending order and in a continuously numbered format.

Regarding the slightly unusual register of the overview text: it felt logical to use a first-person narrative voice, even though 'I' betrays an author's subjective interference in an academic text. The "I" pronoun has been used wherever it was the best way to reveal the connection between events in my career and the evolution of my thoughts and my practices. The goal was to combine the objective tone of a critical, academic text with the necessarily personal insight into my professional development.

Part I: Getting Situated

1. Starting out

The *Habilitation* is a strange academic exercise and for years it was a mysterious exercise which certain colleagues of mine undertook, some more enthusiastically than others. At some point in early 2019 my conception of it transformed into a stock-taking exercise, requiring one to examine past achievements, but also to look to the future, to plan research projects, publications, partnerships. How luxurious to have time to tidily wind various threads of work into a single, compact ball, and to imagine what I can go on to create, knitting those yarns together in new forms. Over the months of working on it, I came to see it as a precious opportunity to carve out space and time for thought. Both are often in such short supply and yet, a ‘slow’ approach to science can yield huge benefits. This is surely the logic behind giving new recruits a reduced teaching load at my university and I wanted to make the most of the reduction offered me. Once a detailed outline had been committed to paper, it was hard to know how to start filling in the sections and sub-sections of that outline. Here I would like to start by explaining why intelligibility and identity appear in the title of this document.

The first is a term which first really gained traction in the research community in the 1990s, via the work of Derwing, Munro, Thomson and others from Canada, who were trying to unravel it conceptually from accentedness and comprehensibility. Their work was already causing me to rethink my research as early as 2001, especially as they examined the social consequences of accentedness and loss of comprehensibility. As a teacher, every time I design a course or make pedagogical choices related to pronunciation, I have to select features to work on. Making the distinction in my head between the Intelligibility Principle and the Nativeness Principle¹, first voiced by Levis (2005), has helped me to better meet the needs of my students: “... what we teach always depends on our teaching context, our learners, who we are as teachers, and the approaches we use to teach and learn” (Levis, 2018, 240). This is particularly relevant to my context(s), as I explain in Part I of this document.

Second, identity is a concept that has been explored from different angles by, among others, sociologists, psychologists, sociolinguists. In my teaching and research, I have often seen how a speaker’s identity colours their reaction to their own speech and that of others. On a personal level, as an immigrant in France I have often been confronted with others’ ideas about my identity. Numerous times those ideas have been based on the way I speak. It was only by doing research into foreign-accented speech that I began to better understand my personal experience of ‘speaking with an accent’, often by trying to see how my experience corresponded to theoretical frameworks or to what extent terminology – such as *glottophobie* or linguistic discrimination – adequately represented it. Numerous times I had experienced shame at my accent and not dared to speak, so the anecdotes collected in the book *Je n’ai plus osé ouvrir la bouche*² are not unique to people speaking French. Yet while personal experience is a valid starting point for research, it is essential to get some distance from it, to objectivise in order to analyse. The *Habilitation* exercise demands precisely such perspective taking, an exercise which I feel quite fortunate to have been able to take up.

1.1. Exploring my publications

A researcher’s publications are the public face by which many people encounter them for the first time. The ‘corpus’ of my published work would therefore reveal the issues I have held dear, and

¹ In his 2005 article Levis did not capitalise the name of each principle, but in this document I have chosen to do so, in order to highlight their status as key notions.

² Blanchet, P. & Clerc Conan, S. (2018). *Je n’ai plus osé ouvrir la bouche : Témoignages de glottophobie vécue et moyens de se défendre*. Lambert-Lucas Editions.

how they have changed over time. As my publications dated back to 1998, so I started a sort of archaeological dig, locating copies of all texts I had written. It was an unexpected surprise to see that some of the questions I was asking in 2001 and 2002 have arisen again quite recently in my research, mainly because I have acquired new skills in the interim and stand more of a chance of answering them - or at least, of chipping away at them with different tools, from different angles. It seemed only natural to explore this body of work of 22 texts more objectively, using the first corpus analysis tool I learned to use: Laurence Anthony's ANTConc.

Generating quantitative analyses of my published works provides objective insight into the main topics and orientations of my work. This small corpus includes my books, book chapters, articles and book reviews published in English from 2008 onwards.³ Using just the titles from 2008 onwards to generate a WordList with ANTConc, Table 1 shows terms with at least three occurrences and excluding function words (*a, an, the, of, ...*):

#Search Hits:			32	4	europe
3	31	english	33	4	issues
6	28	pronunciation	35	4	practices
7	17	teaching	36	4	second
10	12	language	38	4	students
15	8	foreign	39	4	survey
16	7	accents	40	4	teachers
17	7	instruction	41	4	training
18	7	intelligibility	42	4	writing
19	7	international	44	3	accent
20	6	accented	50	3	european
21	6	learning	51	3	french
22	6	native	52	3	lecture
23	5	association	53	3	medium
24	5	corpus	54	3	non
26	5	research	55	3	phonetic
27	5	speech	56	3	results

Table 1: Most common words in titles from my work, 2008 onwards

The list predictably has several terms clearly related to English pronunciation, such as *accent(s), foreign, second, (non-)native, intelligibility* and *speech*, as well as *teaching, training, instruction, learning, and teachers* and *students*. It is surprising to see four hits for the term *writing*, but two of those were the titles of the journal where articles appeared in 2008 and 2010; in the last decade my work has focused almost exclusively on spoken English. The list also reveals the absence of the term *identity*, as only recently have I understood that applied linguistics research on identity provides a productive framework for analysing L2 pronunciation teaching, learning, use and context.

The process of organising my publications into a coherent txt file for ANTConc unveiled the extent to which, from 2015-2019 my French-language research activity was primarily oral: keynotes, presentations at national and international conferences, regional events, or workshops. This was the result of my teaching load and administrative roles at my former university having expanded to such an extent, that I could not devote the necessary time to write quality articles or chapters. It nonetheless felt essential to continue sharing ideas and communicating about my research; since changing universities in 2018, it has been possible for me to prioritise publications again.

The corpus analysis, however, does not reveal the three factors which made 2008 a pivotal year for me. First, it was the first year where international partnerships started to fall into place via the

³ Ten texts were excluded either because they were in French (3), I was only one co-author among many (1) or no electronic version of the text was available (6 including my workbook, *Say it again, please*).

ERASMUS exchanges I had created. Second, I was just beginning to organise the EPIP⁴ conference for the following year. Third, my first two publications on teaching pronunciation came out:

- a journal article: “Towards intelligibility: Designing short pronunciation courses for advanced field experts”. *ASp*, 53/54, pp. 89-110.
- a book chapter: “Short Course Focus on Intelligibility: What type of progress is possible?”. In Waniek-Klimczak, E. (Ed.), *Issues in accents of English*, Cambridge Scholars Press: Newcastle on Tyne, pp. 252-271.

Shortly after the EPIP conference, I would launch a European-wide survey of how English pronunciation was being taught, involving several colleagues around Europe and spurring numerous publications. Thus, 2008 was a turning point because I started receiving peer confirmation, in various forms, of the validity of my research.

1.2. Deciding where I am

This brings me to the second half of this document’s title, “From pronunciation teaching to training for spoken language variation”. In the classroom, when we focus on pronunciation, unlike vocabulary, grammar or any of the 4-skills, we immediately come up against the fact that our speech is often the most salient trait by which people judge us. As soon as I open my mouth, I broadcast information about myself – and, like most human beings, I hope listeners will understand what I say. But I speak not only to be intelligible. I also speak to reassure, to make someone laugh, to belong, among many other reasons – every one of which reveals something about me. Therefore, I see the two concepts of intelligibility and identity as anchoring the didactic decision-making process which lies behind informed, pedagogical action in the classroom. It is more than a simple question of preferring one accent over another or spending more time or less time on segmental or prosodic features. Teaching pronunciation is a complex act, ideally informed by complex reflection.⁵

It is just such reflection which led me to see a connection between teaching pronunciation and the broader act of training people to cope with spoken language variation. Getting to that point has been a long journey with two particularly fortuitous encounters. First, meeting Helen Fraser in 2009 (at the first EPIP conference) opened my eyes to the cognitive aspects of pronunciation – for learners as well as teachers. Reading more extensively on cognitive phonology led me to wonder about the physical reality of pronunciation: to what extent do the cognitive and physical interact? Second, attending two workshops run by Piers Messum and Roslyn Young showed me how an articulatory approach to teaching pronunciation addresses the physical aspect in an imminently accessible way for teachers. It rapidly became a central component of all pronunciation teaching I did. Its sheer physicality brushed aside my learners’ considerations about identity because they were intrigued by this new way of experiencing speech. Such fascination buys a teacher time and feeds learner motivation, up to a point. Nonetheless, the different sets of features I chose to explore within an articulatory approach were chosen by me for different sets of learners, operating in different contexts and with a variety of needs.

I was the key decision-maker regarding which elements to include in instruction, and to face that responsibility I drew heavily on the excellent training I had received at University College London

⁴ *English Pronunciation: Issues & Practices* is the international conference which I founded. The first was held in 2009 at my university in France, followed by Grahamstown, South Africa (2011), Murcia, Spain (2013), Prague (2015), Caen (2017), and Skopje, Macedonia (2019). In 2022 I will bring EPIP to my current university, Université Grenoble-Alpes.

⁵ Similarly, learners can be reluctant to speak in another language for a host of reasons, many of which are well beyond the reach of a teacher.

(UCL) in 2004,⁶ as well as the information I sought out myself (webinars, seminars, workshops, conferences). Acquiring a solid theoretical grounding in phonetics and phonology made it easier for me, in this role, to recognise my identity and its impact on my choices: as an immigrant, a native speaker, a teacher continuously learning about phonetics, phonology, didactics and pronunciation teaching. Yet, I constantly worried about the legitimacy of my choices and my role as an authority on pronunciation teaching, especially as I taught two radically different sets of francophone learners of English.

For two decades, the nature of my teaching load at a French university – half to English majors and half to students with other Humanities majors – forced me to question my own identity in relation to my learners’ needs. Their duality obliged me to prioritise my teaching differently, as summarised in Table 2:

<i>English majors</i>	<i>Students with other majors</i>
<ul style="list-style-type: none"> • Nativelike norm as production model • Theoretical aspects of phonetics & phonology (lectures, classes) • Pronunciation practicals • Language lab sessions, incl. exposure to variety of Englishes (for ear training & comprehension work) • General integrative motivation⁷ for learning English: interested in the associated peoples & cultures and want to adopt some of their characteristics & habits 	<ul style="list-style-type: none"> • Intelligible speech as production model • Brief pronunciation exercises integrated into English for specific purposes (ESP) classes • Listening exercises, exposure to variety of Englishes (for ear training & comprehension work) • General (but not exclusively) instrumental motivation for learning English: English is necessary to help them achieve their future goals and/or it is an obligatory course and they want to get as good a mark as possible

Table 2: English pronunciation teaching priorities of two teaching contexts

In the end, having to adapt my teaching to them in this juggling act may have increased my skills and confidence but, until doing this *Habilitation*, I had nagging doubts about where my “territory” begins and ends and where my loyalties lie or should lie: do I work in EFL or ESP? And why would it be important to distinguish between them?

2. A forest of acronyms

Here I will clarify various acronyms, as I will use them repeatedly throughout this document. Instead of being presented one by one, they are embedded in an historical overview of my teaching and research, both having been influenced by the evolving paradigms behind each acronym. This organisation also highlights my recurring challenge in reconciling the concepts of nativeness and intelligibility with my pedagogical context and choices.

2.1. A tree & a trip

As both a student and a teacher, in 30 years in higher education in different countries, I feel fortunate to have encountered a host of approaches and paradigms. Many of the approaches I experienced are included in the well-known conceptualisation of the English Language Teaching world, the ELT tree, which appears in Hutchinson and Waters’ 1987 book *English for specific purposes: A learning-centred approach* (Figure 1):

⁶ In August 2004 I attended a training course at University College London and then passed the Certificate of Proficiency in the Phonetics of English, as offered by the International Phonetic Association immediately after the course.

⁷ Gardner, R.C. & Lambert, W.E. (1972). *Attitudes & Motivation in Second Language Learning*. Newbury House: Rowley, Mass.

All were searched for in their written-out forms, with quotation marks at the beginning and end of the query terms. The results are presented in Table 3:

<i>Term</i>	<i>Number of hits/time period</i>							
	<i>Jan. 1 1980- Dec. 31 1985</i>	<i>Jan. 1 1986- Dec. 31 1990</i>	<i>Jan. 1 1991- Dec. 31 1995</i>	<i>Jan. 1 1996- Dec. 31 2000</i>	<i>Jan 1 2001 – Dec 31 2005</i>	<i>Jan 1 2006 – Dec 31 2010</i>	<i>Jan 1 2011 – Dec 31 2015</i>	<i>Jan 1 2016 – March 27 2020</i>
ESL	1,230	1,540	2,390	14,200	52,600	127,000	2,500,000	21,200,000
ELT	1,210	1,480	2,820	9,440	31,400	88,600	293,000	7,230,000
EFL	806	918	1,430	7,030	24,200	63,700	197,000	5,700,000
EAP	82	143	158	883	4,150	11,700	46,500	118,000
ESpecificP	94	130	222	1,380	4,800	13,100	52,100	111,000
ESpecialP	9	8	10	349	756	1,730	5,410	10,700

Table 3: Results of Google searches for acronyms, in five-year periods between Jan.1 1980 - March 27 2020

The results show, surprisingly, that ESL has three times more occurrences (a bit over 21 million) than the umbrella term ELT (just over seven million occurrences), with EFL coming a close third with almost six million. ESL and EFL are conceptually sub-categories of ELT, and the ELT tree shows how they are also supra-categories under which others are arranged. If I were teaching English to immigrants in Australia, for example, I would say that I belong to the world of ESL because when these learners leave the classroom, they are surrounded by the target language. However, I teach English in France, which is regarded as a clear example of EFL; English does not have an official role in France, even though it is present in the everyday landscape beyond the language classroom.

Concerning EAP teaching, it is done in both ESL and EFL contexts. An example of the former would be pre-session academic skills courses for Malaysian students at British universities and an example of the latter, an academic reading course for sociology students in a French university.

While I have taught solely in EFL contexts, most of my teaching experience has been firmly in the realm of ESP. Publishers put out specialised ESP textbooks, for example, for medical staff, pilots, engineers, and people working in earth sciences, business and legal professions. That said, Table 3 shows the use of the term “specific” to be vastly more widespread than “special”: 111,000 v 10,700 occurrences.

In addition to depicting ELT as a tree, Hutchinson and Waters use a metaphor for ELT as a city that, once upon a time was inhabited by one tribe “pursuing the noble goals of literature and grammar” (1987, 1). They go on to describe ESP as “a new city” which was “surely no place for people brought up in the gentle landscape of English literature and language” (ibid.). The rise of ESP is the result of some ELT inhabitants striking out “to seek their fortune in the land beyond the mountains”, where the inhabitants were “illiterate and savage tribes called Scientists, Businessmen and Engineers”:

[The new city of ESP] flourished and prospered as more and more settlers came. Soon there were whole new settlements in this previously uncharted land. EST and EBE were quickly followed by EAP and EOP (the latter confusingly also known as EVP and VESL). Other smaller groups took on the names of the local tribes to found a host of new towns called English for Hotel Staff, English for Marine Engineers, English for Medical Science and so on. A future of limitless expansion and prosperity looked assured. (ibid.)

Not only was this rosy future plagued by what the authors called a longing among certain ESP settlers for the certainties of the old city, it was also problematical for those who, like me, were not sure which tribe they belonged to – or wanted to belong to.

2.2. Travelling in ESP & EFL

Like many former inhabitants of ELT, for practical reasons I had worked in ESP. When I started teaching in Germany, most of my teaching qualified as EFL: I had been hired to teach English grammar, written composition, German-English translation and phonetics to undergraduates of the English degree programme. But like every *Lektor/in*, I also lent a hand to teach the ESP classes, particularly the Earth Sciences students and medical students. We were asked to do so by friendly, supportive colleagues so we rarely turned down such well-paid overtime.

It was only after leaving Germany, during my Master of Education degree in TESOL at the University of Manchester, that I delved deeper into the implications of that pragmatic choice. I took a course module on ESP which opened my eyes to the specificity of issues related to ESP, with which researchers were starting to grapple. Was there a grammar specific to ESP, or at least to certain of its specialised branches? Was lexis a better entry point to language learning and teaching? This was a burning question in 1993, when Lewis' *The Lexical approach: The state of ELT and a way forward* had just been published, and corpus linguists could turn to the almost-finished British National Corpus for answers concerning British English. Another course module, on Discourse Analysis, made me aware of ESP-situated research on discourse objects and practices, the extent to which they might characterise certain communities and their behaviour. Examples analysed during the course module included experimental research articles, lab and field reports, and doctor-patient and nurse-patient exchanges.

During my Master's degree at Manchester University in 1993-94, I first became interested in phonetics, in Prof. John Burgess' module. This was a pivotal moment for me, as he taught phonetics and phonology through the filter of teaching pronunciation; after all, his module was part of a Master of Education degree, not a Linguistics degree. Seven years later I discovered his seminal article with Spencer, which explores

... the relationship between two fields: (1) teaching and learning pronunciation in a second or foreign language; and (2) the study of pronunciation-teaching and of phonology in the training and education of language teachers. [...] It argues for a strongly integrated approach to the relationship between the two fields, but for different priorities in those fields. (Burgess & Spencer, 2000, Abstract)

That article must have been inspired, at least in part, by the diversity of students he had each year at the University of Manchester. Out of 40-45 students on the MEd course in 1993-94, in addition to myself there were six native English speakers, including an Irishman based in Liverpool, a Welshwoman who had been teaching in China and four teachers from England, two of whom worked with Bosnian refugees. The other students came from Malaysia or Indonesia, except for two from Cameroon, a Swiss woman and a Polish man. It was my first truly international experience in academia, and I was impressed by the professionalism and flexibility of the students and staff. The reality of such a diverse mix of students also meant that, in Prof. Burgess' class, we spent equal amounts of time focused on the teaching and the learning of pronunciation; many of the students were realizing that they wanted to modify their pronunciation or were at least questioning it – including some of the native speakers. At lunchtimes there was a tremendous amount of discussion about accent, for example how teachers from the north of England tried to adopt a less regional pronunciation when they taught, be it ESL or EFL. I began to understand that the chaos of acronyms reflected fundamental questions about identity and belonging, membership, tribes and territories, as Becher and Trowler (2001) would put it. These questions would come to a head when I changed countries, when I would have to juggle between the Nativeness Principle and the Intelligibility Principle (Levis, 2005) when developing courses.

After the year spent studying in Britain, I began teaching in a French university as a foreign teaching assistant (*lecteurs/lectrices*). Again, I had been hired to teach EFL to English majors, including some EAP in academic writing; for over ten years I taught the final year undergraduate students' writing

courses, based around a 10-12 page long essay, and I found inspiration in several academic writing textbooks. And as in Germany, it rapidly became clear that overtime was available teaching ESP classes. It is said that we reproduce the models we experienced, and with my ESP students I dutifully focused on reading and writing, grammar and vocabulary. The English class that was added in the late 1990s by the department head to the Sociology students' curriculum, was expressly labelled *Lectures sociologiques*. The Psychology students studied academic vocabulary lists and worked their way through many grammar review exercises, none of which had anything to do with the specificity of discourse objects commonly encountered in the psychological professions. Inspired both by Lewis and by the first few articles I read about using a corpus in language teaching, I created collocation and concordance exercises for my students. In keeping with the times, when evaluating written (or the rare spoken) productions, the norm which I applied was a native speaker norm; the Nateness Principle guided curriculum choices and assessment in my EFL and ESP classes.

My EFL teaching load also involved collaborating with colleagues to teach a first-year phonetics class. This mainly involved describing the features of English phonemes to students and teaching them to do simple, broad transcription of Received Pronunciation – or something approximating English as it was spoken in the south of England. It was a golden opportunity to learn more about French learners' typical difficulties with English, and my colleagues pointed me toward three works:

- Adamczewski and Keen's 1990 *Phonetique et phonologie de l'anglais contemporain*, which was on the recommended reading list for 1st and 2nd year students;
- The annual reports of the juries for the competitive national exams for future language teachers;
- Swan and Smith's 1987/2001 *Learner English*.

The 1st year and 2nd year English majors had weekly pronunciation lab sessions, in which I (and native English-speaking exchange students) put them through a series of minimal pair drills and provided corrective feedback. Soon I was promoted to co-teaching the 2nd-year phonetics course, which involved more of the same – theory from books, exercises, labs. The twice weekly pronunciation lab sessions for the Master's level, future teachers of English followed a similar format, and I had been responsible for them as of 1994, under the supervision of Prof. Hubert Greven whose book we used (*Travaux phonétique de la langue anglaise*, 1987/1995). In the first one-hour session they worked on one minimal pair, always RP or something approximate, and in the second session a few days later they did a dramatic reading of a 300-400 word text. This was a text which they had already spent hours analysing in a linguistic grammar course, as part of preparation for the national competitive exam to become schoolteachers.

Even though I am a native speaker of English, it struck me as odd that as a North American with a distinctly hybrid accent, I should be correcting their English based on a model I could only occasionally imitate for very short stretches. Therefore, I split all English major language lab groups into those who wanted to aim for an American accent and those who wanted to aim for a British accent; the future teachers had usually spent a year abroad and were close to achieving Nativelike pronunciation, but the undergraduate students were often uncertain. I tried to recruit British ERASMUS students to pair with me in lab sessions, giving them half the group. This gave us an opportunity to explore the main differences between a General American English accent (GAE) and a Standard Southern British English (SSBE) accent, and by learning more about these two models, most students were able to choose their target – although the vast majority would never achieve nativelike pronunciation.

A few years after adopting this split solution, I began to feel that I should also be doing more work on listening in the lab sessions, on reception instead of only production. I wondered how best I could help the students improve their ability to decipher the myriad varieties of spoken English. This became more and more urgent as the Internet and higher speed connections became more ubiquitous. Students, both English majors and those from other fields, suddenly had access to much greater quantities and varieties of spoken English – via streamed TV series and films, but also through gaming

- and more and more frequently they were asking me for help. It was not always a lack of vocabulary which was the root of the problem, nor the challenge of connected speech phenomena or high speech rates. Often the speaker's accent was a challenge for them.

This led me to put in place two types of language lab sessions for the two different types of students. First, in ESP, I negotiated the addition of six, 1-hour language lab sessions for 1st year students in the Humanities. In those six sessions, in smaller half-groups of 15-20 students, they did exercises around vocabulary from the Academic Word List (AWL) and University Word List (UWL), as these were included in their syllabi at that time. They worked mostly on hearing the words and predicting them in chunks, with collocational hints on the worksheets I devised. They heard the words in a variety of voices and accents, native and non-native, as well as a variety of phonological contexts; it was a very primitive and clumsy form of High Variability Phonetic Training. In terms of pronouncing the words, we wanted them to use noticeable word stress in the correct location and to pronounce the stressed vowel in a recognisably non-French manner; we did not require them to aim for one particular accent, it was more about moving along a continuum.

The second type of lab session concerned the English majors, where it was trickier to incorporate any work on varieties or on prosody, which was also not being adequately addressed. Linguists in our department could have done the language lab sessions linked to their phonetics and phonology classes, but they already had enough teaching hours. By default, I became responsible for running the labs. Naturally, within the English department there was a focus on the Nativeness Principle, because at that time the unquestioned objective of the degree was to prepare students for the national competitive exam. Nonetheless, my department colleagues trusted me, so in 2002 I was able to negotiate extra hours of spoken English, adding language lab sessions for the final year English majors. As I had free rein over the content, this was where I first integrated prosody work, by choosing to structure their sessions around two books:

- Brazil's 1994 *Pronunciation for advanced learners of English*
- Carter & McCarthy's 1997 *Exploring spoken English*

Both books focus firmly on natural, spoken discourse, with Brazil's devoted to intonation, because "tone units are the building blocks out of which all spoken communication is constructed" (1994, 3). Brazil argues that individual sounds should be approached via tone units because "sounds are affected by the intonational shape of the stretch of speech they occur in" (3-4). In his book, an Appendix is dedicated to contextualised work (within tone units) on examples of particular sounds taken from the book units, the goal being to help learners "see how the sound you want to concentrate on fits, not into a word, but into that larger building block, the tone unit" (4).

Exploring spoken English uses extracts from the CANCODE⁸ corpus, with a Transcript, Commentary and Activity provided for each one, for example (1997, 140):

⁸ CANCODE is the Cambridge and Nottingham Corpus of Discourse in English, the importance of which is explained well at <http://corpora.lancs.ac.uk/clmtp/4-notts.php>.

Activity

You are going to listen to about 900 words of conversation where a married couple are at home planning their summer holiday with a guidebook and with the help of a friend who is staying with them.

How good are you at predicting how often certain words might occur in this conversation? Given that the speakers are making plans, they are likely to suggest things, decide things, agree and disagree over possibilities.

Below are some frequency figures for certain verbs in this conversation, counted by a computer. Only one of the figures is correct for each verb. Which one?

	can	could	shall	should	must	suggest	think	reckon
<i>frequency</i>	10,2,6	8,4,0	6,0,11	9,1,2	12,1,5	8,4,0	10,5,2	6,0,1

Turn to page 146 for the correct answers and note the comments on each verb in the Line-by-line commentary.

Treatment of the CANCODE extracts and its various dialects centres on lexis and syntax, as well as differences in register. While it exposes learners to numerous fascinating aspects of language – which I linked to the content of the normal weekly class –, it is clearly not a pronunciation workbook. Thus, for each weekly session I created segmental pronunciation exercises related to the book content and emphasizing those features which native French speakers often find challenging. This was my response to clear pressure within the department to continue to focus on Native speaker models, either GAE or SSBE, and especially segmental accuracy.

Concerning the future English teachers, they had had their lab hours cut to only one hour per week; therefore, we would concentrate solely on the minimal pairs exercises of the books traditionally used with all English majors at my university, Greven's *Travaux phonétique de la langue anglaise* (1987/1995) and Baker's *Ship or sheep* (1981). The sole target models would be GAE or SBBE and learners would not be exposed to other varieties; with the rise of Internet, it was reasoned that they could choose variety in their own time. If I had been better trained at that time, I would have integrated work on prosodic features as well, but with too much uncertainty about how to teach prosody, few lab hours and the natively imperative of the competitive exam looming over all our heads, I timidly chose to rely on the two books cited above, despite the fact that for a few years I had been supplementing both books with my own materials. I lacked the confidence and the knowledge to argue for a radical change of programme.

For the 1st and 2nd year English majors I wanted to use a textbook that would improve upon or update these two books. It was not until I had passed my IPA Certification (2004) that I felt able to make an informed decision; selecting Hancock's 2003 book, *English pronunciation in use* (Intermediate) for language lab sessions. Most of the book was covered in the 1st year and the rest in 2nd year, where my materials could be used more and more extensively. His book explicitly addresses speaking and listening, e.g., in the section "To the student", he answers the question "Is this book only about pronunciation in speaking?":

No, it isn't. Pronunciation is important for both listening and speaking. In many of the units, especially in Sections B and C, the pronunciation is more important for listening than speaking. For example, when they are speaking fast, many native speakers join words together in certain ways. You need to be able to understand this when you hear it, but it does not matter if you do not speak this way. People will understand you. Pronunciation points like this are shown with a grey background and



this sign: It is your choice whether you want to just focus on listening, or whether you want to try to speak that way too. (2003, 6)

We had increasing student numbers, but the average proficiency level had decreased; even after seven to nine years of school lessons, many of the students majoring in English barely had a B1 level and their motivation had changed. More and more of them were doing the degree as a stopgap and they no longer solely wanted to become English teachers. Many of them they just wanted to “do” some English while deciding what direction their lives should take.

In 2004 I found myself in charge of teaching the 2nd year Phonetics & Phonology class. When Hancock’s Advanced level *English pronunciation in use* book came out, I selected it for both 2nd and 3rd year language labs – again, combined with my own materials. The 3rd year students were no longer able to fully benefit from Brazil’s book, nor from Carter and McCarthy’s book. Nonetheless, I felt it was important for them to possess an object that contained reference material as well as exercises.⁹ Newly confident from my 2004 IPA course and Certification, I also chose to use Roach’s *English phonetics & phonology* for classes (not labs) with the 2nd year students.

2.3. Designing travel tools: a workbook, conference, survey and teaching

Numerous threads were coming together in 2008 which would result in my starting work on a pronunciation workbook, creating an international conference devoted to English pronunciation and coordinating an international survey, as well as modifying my ESP teaching.

By 2006 I had accumulated a good supply of homemade lab exercises, both segmental exercises and exercises on prosodic aspects based on extracts from newspaper articles (current events) and the texts they studied in their literature classes. I had also collected recordings by native-speaking teaching assistants and ERASMUS students in order to have both SSBE and GAE recordings of each text. It was a natural decision to start organising them into my own pronunciation workbook. A sabbatical in the first half of 2008 made it possible for me to start shaping the workbook.¹⁰

During my semester sabbatical, I also acted upon the non-existence of my ideal conference. Only one conference came close, PTLC, the *Phonetics Teaching and Learning Conference*. It is a “A biennial international conference devoted to the teaching, learning and assessment of phonetics” and has been hosted every summer at University College London since 1999. Additionally, New Sounds had started in 1990 at the University of Amsterdam but it was an “International Symposium on the Acquisition of Second Language Speech”. According to the conference websites, it was not until 2013 that the words “pronunciation” and “teaching” entered the conference description (linked to applications of technology) when Concordia University in Montréal hosted it.¹¹ The PSLLT (*Pronunciation in Second Language Learning and Teaching*) conference was being created simultaneously by John Levis in North America¹² but I knew nothing of it at that time. To conclude, in 2008 no conference was devoted to pronunciation as distinct from phonetics and phonology, so in June 2009 my colleagues and I hosted

⁹ Language programmes in French universities do not traditionally oblige students to buy many textbooks and students baulk at having to pay 25-30 euros for a book. It was important to guarantee that they could sell on their textbooks at the end of each academic year.

¹⁰ This was finally published in 2015 with an accompanying website - <http://www.sayitagainplease.fr/> -, after copyright complications led me to radically overhaul the second half of the book, replacing prosodic and segmental exercises related to longer, often literary extracts with exercises based on different forms of jokes (riddles, puns, paraprosookians).

¹¹ 2019: <http://www.waseda.jp/assoc-ns2019/> 2016: <https://conferences.au.dk/newsounds2016/> 2013: <https://linguistlist.org/confcustom/customhome.cfm?emeetingid=6002JA4458B65648406050441> Neither term is mentioned in 2010: <http://ifa.amu.edu.pl/newsounds/>

¹² In 2009 the first PSLLT (*Pronunciation Second Language Learning & Teaching*) was held at Iowa State University, organised by John Levis; it is held every year and attracts primarily participants from North America. (<https://apling.engl.iastate.edu/conferences/pronunciation-in-second-language-learning-and-teaching-conference/psllt-archive/>). To consult the archives of proceedings see <https://apling.engl.iastate.edu/conferences/pronunciation-in-second-language-learning-and-teaching-conference/psllt-archive/>

an international conference that fit the bill, EPIP (*English Pronunciation: Issues & Practices*), with the most recent one having been held in Skopje, Macedonia in 2019,

The year 2008 was also when it became clear to me that English pronunciation teaching had not been researched in Europe. By this point I had established enough ERASMUS exchanges and close ties with similar-minded researchers, that I felt confident enough to coordinate a European-wide survey, dubbed EPTiES: *English Pronunciation Teaching in Europe Survey*. An on-line survey was jointly created and administered in LimeSurvey, by eleven researchers (including myself, an Irish and a Finnish PhD student, as well as a Macedonian MA student), in 10 different European countries.¹³ The survey was open from February 2010 to September 2011. Numerous conference presentations and publications came out of the project, the results of which have been cited alongside other surveys of practices, in Great Britain (Bradford & Kenworthy 1991; Burgess & Spencer 2000), in Australia (Macdonald, 2002) and in Canada (Breitkreuz et al., 2001; Foote et al., 2011).

The subject of pronunciation and how to teach it could be – but rarely is – taught on language or language teaching degrees. In terms of textbook or lesson planning, it is a skill that can be integrated in speaking exercises but can also be separate to them. Celce-Murcia et al. (2010) emphasised that the content which future teachers needed to master included much more theory than what their learners needed. Teachers in general need to be able to identify, often in real-time, the sub-group of knowledge which their learners could find useful at a given point in time, humbly saving the totality of their expertise for other, more appropriate contexts, such as exchanges with peers. I had a prime opportunity to test out some ideas and to justify my choices, in real-time, with a group of ideal learners. During this period, a major formative experience for me involved teaching academic English to researchers in the LIDILEM research group¹⁴, at the University of Grenoble. This experience helped me to feel confident enough to change how I taught future English teachers. From 2004-2013 every year I would work with six to ten teacher-researchers from LIDILEM, to improve their ability to communicate in English. Initially we focused on academic writing, but in 2006, when they asked if it would be possible to switch to working more on spoken English, I accepted wholeheartedly. Gradually, as my own expertise, skills and confidence increased, the course came to be entirely centred upon spoken English; work on their writing had been moved into individual tutorials, to suit their changing needs or publication deadlines. These were motivated and motivating linguists who wanted to learn as well as to discuss how I justified the advice I gave. Hunting down answers to some of their more complicated questions obliged me to read even more widely. The dichotomy of native/non-native frequently arose in discussions. For example, working with a sign language specialist made it clear that an individual could not always be assigned to the category “native speaker”, as learning sign language as your “mother tongue” in an instructed setting is fundamentally different to learning one at home with family. Another participant eagerly attended classes, hoping that he would better be able to reach an English-speaking audience and yet, he also contested the weight of English, arguing that by dominating international research English was endangering a range of valuable voices and perspectives.

These discussions, and those on the Supras¹⁵ list, provided the final boost of confidence to radically modify how I trained future teachers. In 2010 the future teachers’ lab sessions had been

¹³ In alphabetical order: Una Cunningham (Stockholm University), Lesley Curnick (Université de Lausanne), Rias van den Doel (University of Utrecht), Dan Frost (Université de Savoie), Alexander Kautzsch (University of Regensburg), Anastazija Kirkova-Naskova (Ss Cyril and Methodius University), David Levey (University of Cádiz), Deirdre Murphy (Trinity College Dublin), Elina Tergujeff (University of Jyväskylä) and Ewa Waniek-Klimczak (University of Łódź).

¹⁴ LIDILEM is the acronym for a French research group at the Université Grenoble-Alpes which focuses on linguistics and didactics of native and foreign languages (*Laboratoire de linguistique et didactique des langues étrangères et maternelles* : <https://lidilem.univ-grenoble-alpes.fr/node/16>).

¹⁵ After EPIP in 2009, Helen Fraser nominated me to *Supras*. This is a group mailing list, open by invitation only, where almost 150 researchers from around the world discuss all things relevant to suprasegmentals.

removed under a new four-year plan, but class hours had been greatly expanded, to 60-hours over two semesters. I decided to focus on how to teach pronunciation, as well as work on their own pronunciation. The obvious choice had just been published in 2010 by Celce-Murcia et al., *Teaching pronunciation: a course book and reference guide*. Fewer and fewer students were coming through to the now graduate-level course to become an English teacher, so I had small groups of five to eight students each year. Some of them had never received any phonetics or phonology instruction but all were fascinated with the hands-on approach: working through the book, evaluating existing materials, creating lesson plans which integrated pronunciation teaching and then test-driving them on the group, analysing their own teaching stints, as well as working on their own pronunciation. Many but not all had already achieved native-like pronunciation, making for interesting discussions of the Nativeness and Intelligibility Principles – in relation to their personal experience and motivations, as well as that of their current and future pupils. My goal was to equip them to make informed choices, as I had learned to make, by seeking out additional training, reading widely, attending conferences, workshops and webinars. I tried to inspire them in the way the LIDILEM linguists had galvanised me.

2.4. Attitudes to travel

In theory it would be simpler for any English teacher to use one standardised form as a model for all learners, but one question will never disappear: *which* model(s) should be the target for production? Level of proficiency and context (real/current and imagined/future) definitely influence the answer. For example, with my adult learners (who are not beginners), it cannot be good pedagogical practice to force one variety upon them for both perception and production, given the realities they face outside the classroom and given my own background. Cauldwell spent two decades developing a sound argument in favour of giving learners two models – one for production, one for reception. His 2013 book *Phonology for listening: Teaching the stream of speech* lays out the argument in detail, with his metaphor of the Garden, the Greenhouse and the Jungle. However, his perspective is not the mono-normative mainstream.

My students and colleagues had always referred to one sole standard – exclusively a native speaker one – citing prescriptive injunctions, especially for the English majors who hoped one day to become schoolteachers. In the 2000s the national examining board had officially become more willing to accept any coherent native speaker variety; until the early 1990s they had only accepted the two major Inner Circle¹⁶ varieties, GAE or SSBE. However, my peers and students tended to equate opening the doors of pronunciation work to other varieties, with laziness or inaccuracy – and they did not instantly see how openness could be valid in relation to listening work. For example, it was a constant battle to explain that, in the second edition of Hancock's *English pronunciation in use*, the exercises using recordings by non-native speakers of English were included for reception work only, and not as pronunciation models. Answering the question of “What accent of English is used in this book?” in the “To the student section”, Hancock states:

For a model for you to copy when speaking, we have used only one accent, a Southern British accent. But when you are listening to people speaking English, you will hear many different accents. If you are not used to these, it can be very difficult to understand what is being said. For this reason, you will hear a variety of accents in some parts of the listening material for this book. (2003, 6)

Despite this initially narrower remit, discussions range far and wide, with pronunciation teaching often discussed. Members include John Wells, Judy Gilbert, John Levis, Marianne Celce-Murcia – in short, the authors who have heavily influenced and inspired me.

¹⁶ Kachru, B. B. (1985). Standards, codification and sociolinguistic realism: The English language in the outer circle.

He goes even further, and touches on the concept of partial competence:

Some of the pronunciation points in the book are potentially irrelevant to some learners. [...] My feeling is that a distinction can be drawn between what we *aim* for and what we *settle* for. Thus a learner might *aim* for /θ/ and *settle* for /t/ (or /s/). Similarly, even in cases where a learner does aspire to communicate with native speakers, there are many pronunciation features where receptive competence would be sufficient. [...] Nevertheless, there may be exercises which ask the learner to produce such features. I have observed that in many cases, there is no better awareness-raiser than to *attempt* to produce, even if the aim is receptive competence. (2003, 8)

And although my ESP students eventually proved open to the idea of variety, I still had to work hard to dispel their initial doubts about distinguishing between productive and receptive goals.

The attitude of my students and colleagues reflects how, outside the classroom, the overriding discourse in French society is one with high regard for a native norm (whether French or English), reflecting a predominantly monolithic view of languages (Clyne, 1991). Extending Clyne's work, the "pluricentriclanguages"¹⁷ organisation lists eight ideas or attitudes held (to varying degrees) by speakers of a dominant variety, the first four being especially relevant to English pronunciation teaching and learning:

1. There is only one language with a certain name (French, German etc.) and there is only one language norm for it. If there is another norm of this language, it can't be correct because that it would reduce the status of the (dominant) variety.
2. A specific nation is represented by that language and the nation represents that language as its most valuable asset and symbol. This nation pretends to be in 'possession' of this specific language.
3. Any person belonging to that nation is assumed to speak only one variety of that language – the norm – which is the only correct one. This has to be done in all communicative situations – private or official. The perfect monolingual speaker is the idol that is aspired to.
4. The 'good and correct usage' of the language is only achieved by a (small) minority. The correct norm is not available to everyone.

French, Italian, and Russian are listed among those languages

- where "the status of pluricentricity is denied by the dominant variety."
- with "[...] a high degree of centralization and little or no awareness of the pluricentricity and/or showing strong reluctance to acknowledge the status"¹⁸

¹⁷ <http://pluricentriclanguages.org/pluricentricity/elitist-attitudes-of-monocentrism> . "The 'Working group on Non-dominant Varieties of Pluricentric Languages' (NDV-WG) was founded in 2010 by an initiative of Rudolf Muhr and has carried on its work ever since by organising international conferences. It assembles scholars from around the world interested in doing research on varieties of pluricentric languages that are not dominating the linguistic and communicative norms of a language and often have to justify their 'otherness'."

¹⁸ <http://pluricentriclanguages.org/pluricentricity/stages-of-pluricentricity>. The 8 eightstages of development are described, with French listed at stage 4 and English listed at stages 5 and 6:

5. Languages where the status of pluricentricity is acknowledged by the 'mother'-variety, where the linguistic characteristics are codified including the minor varieties to some degree in dictionaries and reference books. Languages belonging to this type are: English (some), Dutch, German (some), Hindi-Urdu (some), Spanish (some), Swedish (all), and Portuguese (recently).

6. Languages where the pluricentricity is deliberately practised by model speakers of the respective NV. Emphasis is put on using the specific linguistic features of the national variety in pronunciation, lexicon and pragmatic features of communication etc. This is the case in many varieties of English, Dutch, German, Spanish, Swedish, and Portuguese.

When such attitudes prevail, they tend to influence the teaching of foreign languages in the schools, such as English, Italian, Spanish or German. This is frustrating for both native and non-native speaking teachers. In relation to teaching English pronunciation for example, native Irish and Scottish teachers or North Americans with strong regional accents are faced with a real dilemma: which English should they present as a pronunciation model for their learners? And how could any of these teachers feel legitimate when they open their mouths?¹⁹ But a second related issue also arises. Assuming that a school has hired four English teachers from all over the world, e.g., one teacher has Nativelike SSBE pronunciation but another sounds more like they are from Perth, Australia, another is from Tucson, Arizona and yet another retains phonological features of the language they grew up speaking near Marseille, France: what impact does this have on their learners? My ESP filter led me to reframe the issue: what impact does exposure to variety have on my learners and on their future ability to interact in the real world? And is the impact of *every* pronunciation feature *always* necessarily problematical – for their own speech and for understanding when others speak?

When people learn a new language, they usually subconsciously conceive of native models as ideals to strive toward– although that ideal might change as they become more proficient. Davies argues that the root issue is not whether one is a native or non-native speaker of a language (2013), and that being a native speaker of our childhood language(s) or code(s) is a universal condition and therefore not particularly informative: “That condition is of interest only when compared with a non-native speaker or, in this book, a native user” (8). Furthermore, he emphasises that

[...] membership can change, it can be added to. Of course, application is needed: membership requires work. The native user is a learner who keeps on learning, keeps on gaining. That is equally true of the native speaker who must also keep learning [...]. (ibid.)

Davies puts speakers and users in the same predicament, with the same rights and responsibilities. Moreover, in his approach individuals are agents of potential change and can add to their language(s) as they can add to their identit(y/ies). However, his additive approach is not a given with which everyone concurs. When the categories of native and non-native speaker are in doubt, two fundamental questions arise:

- What features of spoken English need to be present for people to *easily* understand one another? In other words, what should be taught/focused on?
- How can the social meaning of pronunciation be successfully addressed, esp. within the context of instructed second²⁰ language learning?

These underlying questions are not unique to my immediate context of French higher education, including competitive national exams and their focus upon a native or nativelike pronunciation. As such, seeking to answer them for my teaching contexts should, by extension, provide useful information for other EFL contexts.

2.5. Approaches & acronyms

This section covers the rise of the conceptualization of English as an international language or as a *lingua franca*. This is important because the acronyms reflect a shift from seeing Contrastive Analysis as the sole way to prioritise English pronunciation teaching, to more and more refined attempts to cope with the varieties of English around the globe – and the very real impact of this variation on

¹⁹ Thus, they face the same issue as many non-native teachers – and they regularly face job discrimination, regardless of how well they master the language.

²⁰ The term “second language” (represented by “L2”) will be used to refer inclusively to all languages learnt beyond one’s mother tongue(s) and can therefore include L3, L4, etc., unless stated otherwise.

communication. To that end, this section addresses a terminological blur surrounding the spread of English, tracing the following acronyms from the 1980s:

- WE World English
- Global English
- Globish
- EIL English as an International Language
- ELF English as a Lingua Franca

Table 4 provides the results of a Google search of the terms, all languages together, with quotation marks to begin and end each search term, in each five-year period, followed by a graph rendering a subset of the results (Figure 2):

Term	Number of hits/time period							
	Jan. 1 1980- Dec. 31 1985	Jan. 1 1986- Dec. 31 1990	Jan. 1 1991- Dec. 31 1995	Jan. 1 1996- Dec. 31 2000	Jan 1 2001 – Dec 31 2005	Jan 1 2006 – Dec 31 2010	Jan 1 2011 – Dec 31 2015	Jan 1 2016 – March 27 2020
World English	62	145	279	1,190	209,000	151,000	1,590,000	3,740,000,000
Global English	1,090	1,330	1,600	3,460	13,500	46,700	228,000	1,370,000,000
Globish	2	5	1	254	850	4,560	12,800	28,000
EIL spelt out	77	177	234	1,030	2,540	7,810	21,500	37,300
ELF spelt out	80	80	354	665	2,090	6,530	19,900	44,800

Table 4: Results of Google searches for acronyms, in five-year periods between Jan.1 1980 - March 27 2020

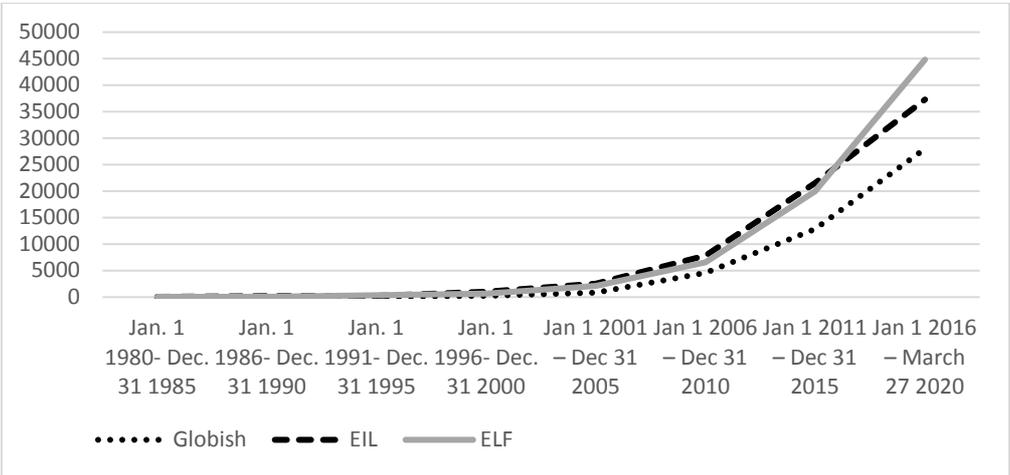


Figure 2: Graph showing results of Google searches for ELF, EIL and Globish, five-year periods between Jan.1 1980 - March 27 2020

The terms World English and Global English occur far more frequently, excluding a meaningful graphic illustration of all terms together.²¹ Once those two terms are eliminated, EIL, ELF and Globish can be

²¹ Jenkins has even written two books on them: in 2009 *World Englishes: A resource book for students* appeared and in 2014 *Global Englishes: A resource book for students*, both published in Routledge’s ‘English Language Introductions’ series.

seen to follow similar trajectories of occurrence. Globish tends to infer a simplified English with less value. EIL and ELF may designate similar or overlapping phenomena and have perhaps not yet been sufficiently differentiated in their usage. More generally, the graph clearly shows that the middle of the ‘noughties’ is when acronym use began to increase rapidly.²² Detailed statistical analysis of hybrid terms instead of acronyms confirms a broader attempt to label “Englishes”. In his 2017 survey article *A multitude of ‘ishes’: The nomenclature of hybridity*, Lambert analyses a total of 488 hybrids (e.g., *Boglish, Brenglish, Czechlish, to Yorlish, Zulish*). Of that total 488, 55% (271-ishes) existed in the 2000s, and just over half of those 271-ishes (53%, or 144 -ishes) came into use in the 2000s and showed staying power, existing for more than one year. Two publications from this pivotal moment in terminological evolution provide clear evidence of the struggle: McArthur’s July 2004 review article *Is it world or international or global English, and does it matter?* and Jenkins’ 2009 resource book on World Englishes, including a chapter analysing several circle-based models of different Englishes.²³

English as a lingua franca had been written in lower case letters in the 1980s and 90s, appearing in research associated mainly with the business world (BELF) or industry, such as Clyne and Ball’s 1990 article *English as a lingua franca in Australia especially in industry*. It began to be written in capital letters as ELF at some point after the publication of Jennifer Jenkin’s book *The phonology of English as an international language* in 2000, although Jenkins referred to EIL in the title of this book and in her 2002 article. The marked increase in occurrences of both terms after 2005, as shown in the line graph, results from the slow but inevitable impact of her book. Since 2015, ELF has overtaken EIL as the more commonly used acronym.

2.6. The ELF perspective

The first public use of ELF in capital letters was by Jenkins in March 1996, at a UCL doctoral research seminar, the year after finishing her PhD there on variations in ELF users’ pronunciation (2018, 594-95). In her 2000 book, based on her PhD, she was still using the acronym ILT, interlanguage talk, revealing the continued influence of Selinker (1972),²⁴ but this perspective would change over time. In the 2018 *Handbook* Jenkins explains how at the start, ELF researchers copied the conceptualisations of World Englishes as a collection of varieties and they set about identifying the features of each, reasoning that for ELF communication to work, a crossover set must be shared between speakers.

Later, the increasing amount of empirical evidence began to demonstrate that the use of this lingua France was too diverse and fluid to be captured with a ‘varieties’ paradigm, and attention shifted to exploring and explaining ELF’s fluidity in light of the many functions that it was found to serve. (595-6)

The ELF argument is roughly as follows: instead of aiming to sound natively like, or even aiming to be intelligible to native speakers, English pronunciation teaching should be based on what non-native speakers actually do when they interact – in other words, what they do to remain intelligible to each other. The rest of this section explores ELF in more detail, as ELF research represents the most noticeable attempt to reconcile English language teaching with a world full of increasingly varied and shifting Englishes.

²² Except for the anomalous and inexplicable decrease for World English between Jan 1 2006 – Dec 31 2010.

²³ Jenkins, J. (2009b) “Who Speaks English Today?” *World Englishes: A resource book for students*, 2nd ed. London: Routledge, pp. 15-24

²⁴ Even though interlanguage theory carries with it the notion of error, it should also be remembered as a theory that posits conscious learner agency. Learners can do something to control how they learn, and learning progresses through steps. Errors or mistakes are a part of that process, with the learner’s L1 inevitably influencing that learning (interference). Making teachers and learners aware of this process not product orientation – as well as the inevitability and usefulness of errors – can be empowering.

In 2005 Seidlhofer clarified the term ELF, citing Firth, in “Key Concepts in ELT” for the *ELT Journal*:

... in most cases, it is ‘a ‘contact language’ between persons who share neither a common native tongue nor a common (national) culture, and for whom English is the chosen foreign language of communication’ (Firth 1996: 240). (339)

Seidlhofer did not exclude the participation of English native speakers in ELF exchanges. In contrast, a later definition of ELF from Jenkins does this, in her 2009 book on World Englishes, as a response for English users “from, for example Europe, China and Brazil, to use English more frequently as a contact language among themselves rather than with native English speakers (the EFL situation)” (4). In 2011 Seidlhofer was still including native speakers in her definition: “any use of English among speakers of different first languages for whom English is the communicative medium of choice, and often the only option (7).

Jenkins’ argument was based initially – not on her intuitions as a native speaker – but rather on her three years of field notes from a variety of classroom and social situations, involving interactions about speakers from a variety of Asian and European L1s (2002):

Over this period, I noted down every example of mis- and non-communication that occurred in my presence and, wherever feasible, discussed the cause(s) with the interlocutors involved. What emerged was a clear indication that although pronunciation was by no means the sole cause of OILT communication breakdown, it was by far the most frequent and the most difficult to resolve. (87)

The speakers she worked with for her 2000 book were all upper-intermediate to low advanced level, based on the UCLES scale, and they were doing a map task in pairs, where each person had a slightly different version to explain to the other. They were from Japan and Switzerland and Jenkins found 40 zones where communication broke down, 27 of which involved phonology (2000, 85). She based the LFC on this data, to arrive at a core set of features as important for maintaining intelligibility.

The LF “core” for pronunciation has since been used as a framework to prioritise pronunciation teaching and has inspired a great deal of debate, some quite virulent. Others have also extended Jenkins’ work, for example Deterding (2012, 13), about whose work I will say more later. Table 5 shows what is essential to the LFC core and which features are categorised as less important, for intelligibility in multilingual groups to be maintained, as demonstrated in Jenkins’ data:

Core features	Non-core features
– Vowel length (<i>live/leave</i> or <i>peace/peas</i>) *especially before voiced/unvoiced consonants	– Vowel quality *but must be consistently one accent
– /3:/	– Dental fricatives
– Consonants	– Dark-L (Bill, pull)
– Aspiration of initial /p t k/	– Final consonant clusters
– Word initial & medial consonant clusters	– Weak forms
– Tonic stress placement (also called nuclear stress, focus, prominence)	– Word stress
– Word grouping	– Stress-timed rhythm
	– Tones

Table 5: Core and non-core features of Jenkins Lingua Franca Core (2000)

Certain features which are widely taught in ELT, such as dental fricatives and word stress, are non-core features for two reasons: either in Jenkins’ data these features were not identified as the cause of breakdowns in communication, or they were considered unteachable. Jenkins (2002) explicitly explains

this as “no matter how much classroom time is spent on them, learners do not acquire them” (97).²⁵ While the first criterion is essentially objective, the second is not, and will be covered in more detail – with other aspects of the debate and in relation to my teaching contexts – in section 2.7.

To measure the impact of English as a Lingua Franca research, various metrics could be applied. First, numerous conferences have included symposia or reserved colloquia for ELF. Second, three major corpora focus solely on ELF:

VOICE (Vienna-Oxford International Corpus of English)	Seidlhofer (2001)
ELFA (ELF corpus of academic English)	Mauranen (2003)
ACE (Asian Corpus of English)	Kirkpatrick ²⁶ (2003, 2014)

Third, in terms of publications, Routledge recently published a Handbook (2018)²⁷ and a journal has been created²⁸ as well as a book series (*Developments in English as a Lingua Franca*, DeGruyter Mouton). In addition to the Handbook mentioned above, six publications by four authors (and three publishers) constitute the main reference publications:

- Jenkins, J. (2014b). *English as a lingua franca in the international university: The politics of academic English language policy*. Routledge.
- Deterding, D. (2013). *Misunderstandings in English as a lingua franca: An analysis of ELF interactions*. De Gruyter.
- Seidlhofer, B. (2011). *Understanding English as a lingua franca*. Oxford University Press.
- Walker, R. (2010). *Teaching the pronunciation of English as a lingua franca*. Oxford University Press.
- Jenkins, J. (2007). *English as a lingua franca: Attitude and identity*. Oxford University Press.
- Jenkins, J. (2000). *The phonology of English as an international language*. Oxford University Press.

Today two of the most well-known promoters of ELF include Robin Walker and Laura Patsko, who have established blogs and solid reputations on the conference and teacher training circuits, particularly but not exclusively in Europe. Scant work labelled explicitly as ELF has come out of the United States, Canada, Australia or New Zealand (Kachru’s Inner Circle countries), to the best of my knowledge, although there are exceptions, e.g., Matsumoto’s (2011) *Successful ELF communications and implications for ELT: Sequential analysis of ELF pronunciation negotiation strategies* and Pickering’s (2009) article *Intonation as a pragmatic resource in ELF interaction*.²⁹

Terminological distinctions began to be made in the decade after 2005. For example, Hülmbauer (2008) defines ELF “functionally by its use in intercultural communication rather than formally by its reference to native-speaker norms” (27). The functional/formal distinction had, nonetheless, already been made by House in 2003:

ELF talk cannot be conceived with a view to an ideal English norm, and the ELF speaker cannot be measured in his/her competence vis-à-vis the native speaker. A lingua franca speaker is not - *per definition* - not fully competent in the part of his/her linguistic knowledge under study. (557)

²⁵ Levis counters this claim by citing examples of successful teaching of word stress and intonation (2018, 209). He concludes that “Saying something is not teachable says little more than that the teacher does not think teaching a feature if worth it. This says a lot about the teacher, but little about the pronunciation feature of the learner.” (ibid.).

²⁶ See ch. 11 “The development of ELF in ASEAN” in Jenkins (2018). *Handbook of English as a lingua franca*

²⁷ Jenkins, J., Baker, W., & Dewey, M. (Eds.). *Handbook of English as a lingua franca*. Published by Routledge

²⁸ <https://www.degruyter.com/view/j/jelf>, launched in 2018

²⁹Matsumoto (University of Pennsylvania) and Pickering (Texas A&M University-Commerce).

House seemed almost to have a premonition about the circling back of ELF to World English, but this time round in the form of multilingualism:

Further support for the stance against one-sidedly attacking English as a killer language will be drawn from the findings of three research projects currently being carried out at Hamburg University, one on the impact English has on discourse norms in influential genres in other languages; the second one on the nature of interactions in English as a lingua franca; and the third one on so-called ‘international degree programmes’, in which English is the language of instruction. (ibid.)

House’s mention of a study of international degree programmes leads me to think that the spread of English Medium Instruction (EMI) within Europe, an unexpected consequence of the 1999 Bologna Process, may have contributed to this change in perspective: “... ELF’s multilingual nature has been foregrounded, and ELF seen as being positioned within a framework of multilingualism rather than multilingualism being an aspect of ELF use” (Jenkins, 2018, 596).³⁰

Recognising the crossover with multilingualism but from a different angle, in the past decade Mauranen has provided a conceptualisation of ELF as similects, which she defines as the extent to which “ELF users’ first languages do, indeed, exert an influence on their English”, making their ELF use “similar in at least some respects to that of their first language peer group” (Jenkins & Mauranen, 2019, 3). Mauranen (2012) defines a second order of contact³¹ as being contact between hybrids:

... a large number of languages are in contact with English, and it is these contact varieties (similects) that are, in turn, in contact with each other ... To add to the mix, ENL [English as a native language] speakers of different origins participate in ELF communities. The distinctive feature of ELF is nevertheless its character as a hybrid of similects. (29-30)

To summarise, the theoretical framework has evolved from ELF1 to ELF2 and now ELF3 (Jenkins, 2015). In terms of overall conceptualisations, these have shifted further toward the use of English within a society and its degree of social penetration (Kachru, 2005) and its use by speakers with ‘functional nativeness’ (ibid., 12). Jenkins (2009) cites Graddol’s (2006) suggestion in a British Council publication that “... there is an increasing need to distinguish between proficiencies in English rather than a speaker’s /s status” (2009, 110), concluding that “Degree of proficiency or expertise is an eminently (and possibly the most) useful way to approach the English of its entirety of speakers nowadays, regardless of where they come from and what other language(s) they speak”. (ibid., 23).

Here I propose a parallel between this evolution (ELF 1 to 3) and Hutchinson and Waters’ comparison of different approaches to ESP course design, which they argue are negotiated and dynamic (1987):

- language centred: this is focused on linguistic features as revealing “the nature of the target situation performance.” (72)
- skills centred: “We must look behind the target performance data to discover what processes enable someone to perform.” (73)

³⁰ See also Jenkins (2015), “Repositioning English and multilingualism in ELF”, where she retheorizes the “essentially multilingual nature” of ELF. A need to adjust the theoretical framework of ELF in relation to multilingual research has also been expressed in Asia, for example Ishikawa’s 2018 article “From English native-speakerism to multilingualism: A conceptual note”.

³¹ According to Mauranen (2012), the first order of contact is where “speakers of two different languages use one of them in communication”, which she qualifies as more “typical” (29).

- learning centred (not learner): “We must look beyond the competence that enables someone to perform, because what we really want to discover is not the competence itself, but how someone acquires that competence.” (73)

The authors go to great pains to explain that they reject the term *learner-centred* as misleading, because the individual learner is only one of many factors in the wider process of learning (1987, 72). They also emphasise that while learning is an internal process, unique to each learner, it occurs in a context which cannot be ignored. Learning is a socially situated mental process that, as such, is subject to active negotiation about the target and the route toward that target:

... it is a process of negotiation between individuals and society. Society sets the target (in the case of ESP, performance in the target situation) and the individuals must do their best to get as close to that target as possible (or reject it). The learners will certainly determine their own route to the target and the speed at which they travel the route, but that does not make the target unimportant. The target still has a determining influence on the possible routes. In the learning process, then, there is more than just the learner to consider. (72)

In terms of pronunciation this implies that the target is important (be it GAE, SSBE, EIL, ELF or other) and it exists within sociocultural packaging whose influence cannot be denied. I would not be misquoting the authors if I extended their statement that maximizing opportunities for learning is the main concern, when I say that my professional responsibility is to create opportunities to learn socio-culturally appropriate L2 pronunciation.

To conclude, it is possible to see a parallel between these three approaches to syllabus design and the evolution of ELF, as follows. ELF1 was mostly focused on identifying features and drawing up the Lingua franca core. Researchers found that in their data segmentals and suprasegmentals combined to cause breakdowns in communication but, as the latter seem less teachable, they are a minor part of the LFC. ELF 2 is more like a skills centred approach, as the focus switches to what is happening behind the performance. Influence is also accorded to intercultural communication principles, the question becoming: what pragmatic skills need to be acquired for ELF interactions to run effectively and comfortably? ELF3 is described as “multilingualism-with-English”, not multilingualism in its broad sense (as many multilinguals do not speak English) (Jenkins, 2018, 601). While the parallel is more tenuous here, ELF 3 is similar to the learning centred approach in that the activity is definitely seen as socially situated and dynamic, fluid. Pronunciation in general, and particularly segmentals, are just two factors among many which characterise ELF interactions. Jenkins predicts that

... there will most likely be many kinds of Englishes used predominantly in transcultural communication among multilingual English speakers, who will make use of their full linguistic repertoires as appropriate in the context of any specific interaction. [...] According to this translanguaging approach, the future English in (multi)lingua franca communication is essentially bound up with the future of other languages. (ibid.)

2.7. Travelling beside ELF

This section will explain how – despite missing the ELF train – I appreciate it as a perspective that has usefully advanced research and educators’ thinking, so that it is now easier to understand how to integrate linguistic variation (especially concerning pronunciation) in English language teaching.

The ELF debate was hovering in the background while I finished my PhD and began to seek out more training in English phonetics, phonology and pronunciation teaching. While I did read Jenkins’ book when it came out, the full implications of her position only became obvious to me when in 2007 I

attended my first International Conference on Native and Non-Native Accents³² at the University of Lodz, Poland. I gave a talk about a short-course I had developed for researchers, aiming to improve their intelligibility for international conferences; I analysed four speakers' speech rate, pace, and word stress placement, arguing that these prosodic features were important for intelligibility at conferences and that they also seemed to be both teachable and learnable (AH2008_02). I received polite questions and the audience seemed to accept the logic behind emphasizing certain features more than others, in relation to a specific objective and context. The talk by Rias van den Doel on "The Blind Spots of Jenkins's Lingua Franca", however, ended in one of the most aggressive verbal clashes I have ever witnessed in academia, yet apparently such violence was quite common around ELF at the time.

In this section I will cover some aspects of the debate around ELF as they relate to my teaching context, the public higher education system in France, a primarily monocentric society.³³ While obviously some of my students have as their mother tongue a language other than French or English, my EFL context seems to be very different to the multilingual groups of learners in ESL contexts which seem to dominate ELF research, as shown in Table 6:

	<i>Groups of learners involved in research</i>
Jenkins 2000, 2002, 2007	Numerous L1s; ESL setting = British university/MA ELT & Applied Linguistics; ³⁴ upper-intermediate to low advanced
Mauranen 2012	Numerous L1s; EFL setting = Finnish university
Patsko 2013	10 different L1s; ESL setting = British secondary school
Deterding 2013 ³⁵	"ASEAN multilinguals", so primarily Asian L1s but for some English is their "best" language + 1 Nigerian; more or less EFL setting (university in Brunei)

Table 6: Groups of learners involved in ELF research

The last decade has seen more EFL settings similar to my own being explored, leading me to ponder what aspects of ELF might help me to prioritise my pronunciation teaching. Fortunately, Walker deftly addresses the main concerns about ELF in his 2010 book, contrasting them with the benefits of adopting an ELF approach (Table 7):

<i>Ten Concerns</i>	<i>Six Benefits</i>
An ELF approach will lower standards	1) A lighter workload
An ELF approach will make errors acceptable	2) Increased progress and achievability
The LFC is a reduced version of native-speaker pronunciation	3) Accent addition instead of accent reduction
ELF means variation, but mutual intelligibility means a common standard	4) Identity through accent
If you take away native-speaker accents, you leave learners without a model	5) Mother tongue as friend

³² <http://filolog.uni.lodz.pl/accents/>: *Accents is an annual conference organized by the Department of English Language and Applied Linguistics at University of Łódź, Poland. It brings together researchers and teachers interested in native and non-native accents of English, approached from a variety of theoretical and/or practical perspectives. The key issues discussed each year include individual accent characteristics, the dynamism of accent usage, accent in teaching and learning, the methods and tools for accent studies as well as pronunciation instruction.*

³³ This does not deny the vibrant reality of the numerous languages present on French soil.

³⁴ Nowhere did I find precise details about this data collected so I inferred, based on Jenkins' web page, that she collected her data at her place of work: "From 1992 to mid-2007 I worked at King's College London, where I designed and directed the MA in ELT & Applied Linguistics," (<https://www.southampton.ac.uk/ml/about/staff/jj1a06.page#teaching>).

³⁵ Conversations between two to four people in a classroom + one in a lecturer's office; Brunei component of Asian Corpus of English (ACE, inspired by VOICE); 2013 = Corpus of Misunderstandings from the ACE (CMACE);

<i>Ten Concerns</i>	<i>Six Benefits</i>
You cannot teach an accent that nobody has	6) Non-native speakers as instructors
It is wrong to impose an ELF approach on students	
A bad accent gives a bad impression	
Most teachers prefer a native-speaker accent	
Most learners say that they want to sound like a native-speaker	

Table 7: Concerns and benefits of ELF as treated in Walker (2010)

My view of these six benefits is explained in the following:

Benefit #1: A lighter workload: the amount of time devoted to pronunciation is already so minimal that this criterion does not affect my choices, especially not with my ESP students. I would even argue that for many teachers the issue is not about quantity, but rather quality: *what* can be squeezed into that minimal workload.

Benefit #2: If we take as given a similar motivational level for all learners involved, surely progress is more a consequence of the teaching they receive. However, this benefit highlights the importance of learners' perception of what they are learning; the extent to which they see it as learnable (achievable) influences whether they invest time and energy.

Benefit #3: I agree entirely with a focus on adding pronunciation features instead of eliminating 'errors', but we still need to aim for something. If learners have trouble with an LFC feature, for example, I can reframe it as variation (instead of error) but the fact remains; they may need to change something about their pronunciation. Teachers need to build up a sizeable toolbox of knowledge and techniques so they can help learners to achieve the pronunciation they want – or in the absence of 'wanting', negotiate a target.

Benefit #4: I agree that identity and accent are inextricably linked, but some learners will have enough integrative motivation to strive to achieve natively pronunciation. Even if we openly discuss the reasons behind their choice and I try to change their mind, if they still want to sound like a native, as their teacher I need to have the skills to help them progress toward it. It is true that research has shown that few adult learners attain Natively pronunciation. However, that reality should not discourage learners who want to try, even if they only manage to modify their pronunciation of a specific phoneme or a prosodic feature. (Additionally, if they want to be able to speak with native speakers, they will need to have a minimum of listening training with native varieties, in the myriad ways speakers use and abuse English.)

Benefit #5: Exploiting the learners' L1 as a helpful friend not a dangerous foe has always seemed useful to me – but I admit to having felt ashamed of using French to explain certain information, with certain learners. Knowing what I now know about language acquisition in bilinguals, for example, I feel it would be odd for a group of humans to *not* exploit a common language, in order to better communicate – even in a language class.

Benefit #6: It seems evident that individuals can be excellent pedagogues independent of their mother tongue but it is a statement that still needs to be explicitly supported, e.g., in hiring practices which still favour native speakers.

Extending Walker's list of the most common concerns about ELF and the LFC, I have three supplementary sources of disagreement with the LFC.³⁶ First, the fact that segmentals dominate the LFC makes it problematical to use it as the sole criterion on which to select features in a pronunciation syllabus. This is because accent is characterised by segmentals only at the conscious level. Second, listener needs and reactions cannot be ignored, especially in relation to prosody. Third, in terms of

³⁶ More will be said about this Part III, *Implications for Training Speakers and Listeners*.

selecting different models for pronunciation work and for listening work, it would be unfair to exclude variety – or even just native speaker productions – from listening work. To cite Levis:

L2 speakers, like L1 speakers, need to be able to listen to speakers of different proficiency levels and from different L1s, not to mention being able to listen to L1 speakers with different accents. [...] ... at the very least they need to listen to different speakers, especially from groups they are likely to interact with, to create flexibility in listening. (2018, 241)

Excluding variety would leave learners woefully unprepared for authentic interactions in the real world, with native and non-native speakers.

On a more positive note, one of the most welcome consequence of ELF research has been its major impact on international standardised testing and an increasing focus on accommodation processes and communicative effectiveness.³⁷ One of the reasons often cited for continuing to use native norms has been that international English exam bodies required it. However, over the last 10 years, Trinity, Cambridge, IELTS and TOEFL have become more and more intelligibility referenced (Walker, personal communication, April 2020). Also, in a radical policy reversal, Trinity has been recruiting more and more examiners from outside the UK, instead of sending them out from the UK (ibid.), aware that local examiners are already used to local accents or varieties of English. At least as early as 2006 Jenkins had voiced a plea that testing bodies and English teachers pay more attention to accommodation in social interaction,³⁸ as a part of becoming “ELF-aware practitioners”. What are the needs of NNS speakers when they interact, with other NNSs and with NSs? The research agenda on this has tried to document the multitude of interaction types, analysing the points where communication failed, e.g., research by Scheuer and Horgues³⁹ using the TANDEM corpus.

This valuable and productive line of research has given us a much clearer picture of lexis, syntax (e.g., 3rd person sing. final -s), and discourse organisation features which occur in these contexts. Moreover, these researchers and others have explored the pragmatic strategies (e.g., communication repair, turn-taking) which are mobilised when NNSs interact, exploring how speakers adapt to each other – accommodate. Some of the most exciting work, from a methodological standpoint, has come from Deterding (2013) in South-East Asia, where he has sought to involve speakers in the research process:

Much research on misunderstandings in ELF tends to investigate breakdowns in communication: it analyses data to find out what causes a breakdown in communication to occur and how it is repaired. This book is rather different. Most of the participants themselves were subsequently involved in the transcription or else they contributed to the analysis by providing invaluable feedback about what they had said and also what they had not understood. This has allowed me to find numerous instances where a participant does not understand something but when the conversation continues with no apparent problem, and I only know about the misunderstanding as a result of the subsequent feedback from participants. This provides a rich source of data on intelligibility. Even though the majority of the instances that I will analyse involve no overt breakdown in communication, nevertheless it is important to consider which features of speech have an impact on intelligibility, and what it is about pronunciation, lexis, grammar and general patterns of usage that have caused certain words or phrases not to be understood by the listeners. (2)

³⁷ For more extensive treatment of this subject, see chapter 45 “Language assessment: the challenge of ELF”, written by Harding & McNamara in Jenkins (2018) *Handbook of ELF*.

³⁸ Jenkins (2006), “Testing time for testers”, *ELTJournal*, Vol 60(1), 42-50.

³⁹ See, for example, their forthcoming chapter “Corrective feedback and unintelligibility: do they work in tandem during tandem interactions?” (in AH2021_01).

Including speakers' feedback in the research process, to obtain an insider or emic perspective, has led to more representative data, allowing Deterding to "identify instances of misunderstandings that are not actually signalled in the recordings, which represents the overwhelming majority of the tokens" (2013, 25), which Scheuer and Horgues admit is crucial in future work.⁴⁰ Participant feedback enabled him to find 147 instances of misunderstandings in 6.5 hours of data, and in his 2013 book (26) he compares his figures to Mauranen's six cases in five hours (2006, 132) and Björkman's four tokens in 70 hours of lectures and groupwork in English at a Swedish university (2009). More nuanced data can lead to more robust interpretations. Nonetheless, Deterding cautions:

At this point, it is important to emphasize that misunderstandings are very much the exception rather than the rule in my data, and the conversations that constitute my corpus generally proceed smoothly. I will therefore endeavour not just to consider features of speech that cause misunderstandings to occur but also those that serve to enhance intelligibility. (2013, 2-3)

More studies should imitate Deterding's focus and methodology in relation to teaching priorities, especially regarding what is happening in these interactions for communication to "proceed smoothly". It might be that accommodation skills should become target teaching points. This seems to be closer to what is offered in recent publications and concurs with an overall trend towards a less English-centric view of language learning, both amongst "ELF-ers" and more broadly in Applied Linguistics research.

Conclusion

To conclude, I have tried to explicitly situate my perspective, in relation to a rich seam of inquiry in Applied Linguistics that is characterised by a plethora of acronyms. I have explained how my teaching and research work evolved, simultaneously to a major and enduring debate within the field of English language teaching. While several aspects of the ELF-approach are appropriate to my context, the LFC is not a suitable model for my EFL and ESP students. It sets out priorities which concur neither with my experience of teaching them nor with my learners' needs. More importantly, ELF promotes teacher empowerment, encouraging teachers to notice their learners and to value their mother tongue(s); in the notes to accompany her LFC grid, Patsko explicitly advises teachers to do precisely this (2013). The LFC is therefore perhaps just as useful a starting point as Contrastive Analysis: it forces teachers to think about what they are doing and why, in relation to their learners.

In this way, the ELF debate has constructively raised awareness of the diversity of spoken exchanges, and this is an excellent platform from which to tackle the issues of variation in English pronunciation teaching, as well as teacher identity. In its current phase ELF prioritises the impact of the key variable in pedagogical decision-making: the speaker-listener interaction. Interactions are coloured both by the underlying motivations of the interlocutors and the context within which the exchange is situated. Moreover, such interactions necessarily mobilise accommodation processes. We accommodate when we speak *and* when we listen, and this can be transformed into teaching moments or points, with a view to improving both productive and receptive proficiency. However, as Part II will show, accommodation is subject to powerful social and cognitive factors which cannot be ignored.

⁴⁰ Ibid.

Part II: Intelligibility and Identity

Part I used a travel metaphor to show how the various strands of my teaching and research experience constitute a coherent whole which developed over time. The main objective of Part II is to clarify the theoretical framework underlying my stance. With that goal in mind, I explain two key notions which are the cornerstones of my theoretical stance: intelligibility and identity. In Part I, these two concepts were presented as anchoring the process of didactic decision-making and pronunciation teaching, both of which are complex acts based on complex thought. Ideally both actions are based on critical thought as well as on sound evidence-based principles. My claim will be elaborated via a critical exploration of pertinent research on intelligibility and identity, which will make it possible in Part III to address the implications in both teaching and learning. Four interrelated questions related to communication between native and non-native speakers underlie Sections 3 and 4:

- Is it possible and desirable to identify the specific features of spoken English which need to be present for people to *easily* understand one another?
- Is the impact of *every* pronunciation feature *always necessarily* problematical – for speaking and for understanding others?
- How can the social meaning of pronunciation be successfully addressed, esp. within the context of instructed second⁴¹ language learning?
- How can language variation be integrated within instructed second language learning and when are learners “ready” for variation?

3. Intelligibility

When we speak, we aim to be more than just intelligible. We hope to express a range of meanings, subtleties, allegiances, attitudes and desires, as Carter so rightly points out:

Those who argue that non-native speakers do not need exposure to real English assume that language learners only need to learn to **transact**, and have no real need to **interact** in the target language. On the other hand, it can be argued that, more often than is realized, language users at all levels also need to build relationships, express attitudes and affect, evaluate and comment, and make the propositional content of a message more person-oriented. (1998, 50)

But what does it mean to be intelligible? And for whom do we want to be intelligible? The distinction between accuracy (here, natively like pronunciation) and intelligibility goes back to 1900, when Henry Sweet, the inspiration for Shaw’s Henry Higgins, argued that “sufficient accuracy of pronunciation to ensure intelligibility” should be the goal of language learners (1900, 152, cited in Munro & Derwing, 2011, 319). Research has focused on identifying the linguistic features which allow native and non-native speakers to remain mutually intelligible in exchanges with each other. One common methodology is to observe interactions and list where communication seems to break down, as seen in much of the ELF research cited in Part I. Another methodology rooted more in psycholinguistics involves asking listeners (NSs and/or NNSs) to explicitly assess recorded speakers as more or less intelligible or accented, the second adjective reflecting recognition of social context. Another more recent methodological orientation requires such interactions to be reconceptualised as dynamic processes with emerging behaviours and norms. To try to capture these processes, speakers are asked to participate, for

⁴¹ The term “second language” (represented by “L2”) will be used to refer inclusively to all languages learnt beyond one’s mother tongue(s) and can therefore include L3, L4, etc., unless stated otherwise.

example, not just in rating/evaluation exercises, but also in think-aloud protocols, follow-up interviews or focus-group debriefings. The accommodation processes and broader interactional skills – and the speakers’ comments about these – become the focus, not the linguistic features. In other words, research in this vein could be said to be shifting toward the *why* and *how* questions, while acknowledging that many *what* questions remain unresolved.

The next section (3.1) summarises work on the three central constructs which have been widely adopted: their definitions, how they tend to be measured and key research findings. Then section 3.2 provides an overview of how the research community has approached intelligibility. There is a predominantly North American nature to this, as two Canadian researchers have been the main impetus behind the explosive growth of L2 pronunciation research in general over the last 15-20 years. Listener identity is explored in section 3.3 explored as a pivotal methodological factor. The final section looks at reactions to foreign-accented speech, in terms of cognitive and social aspects, before introducing acceptability as a fourth, key construct.

3.1. Conceptual overview

This section summarises work on the three key operationalised constructs which are widespread in research, since Munro and Derwing’s two seminal papers in 1995 were published. According to Thomson, the authors “could not have anticipated the massive impact it would have on the field, or the myriad ways in which these concepts would take on a life of their own” (2018, 12). The three constructs are characterised by Derwing and Munro as follows: “accent is about difference, comprehensibility is about the listener’s effort, and intelligibility is the end result: how much the listener actually understands” (2009, 480). Table 8 presents the key aspects of these three constructs: their original definitions from 1995, how they tend to be measured, key findings and the key language features which research has identified as contributing to each:

	<i>Accentedness (ACC)</i>	<i>Comprehensibility (COM)</i>	<i>Intelligibility (INT)</i>
<i>Definition</i>	Subjective perception of difference to nativelike pronunciation	Subjective perception of processing ease	Accuracy of understanding
<i>Measurement</i>	Scalar ratings	Scalar ratings; potentially response latency data	Transcription, comprehension questions such as T/F, multiple choice, etc.
<i>Key findings</i>	Independent from INT; weak correlation with INT (Munro & Derwing, 1995a; Jułkowska & Cebrian, 2015)	Moderate-to-strong correlation w ACC (Munro & Derwing, 1995b), longer processing times; recent confirmation (i.e., Jułkowska & Cebrian, 2015); not enough research into relation with INT	Independent from ACC; weak correlation with ACC (Munro & Derwing, 1995a): not enough research into relation with COMP
<i>Key language features</i>	Phonemic divergences; Phonetic divergences (i.e., Zielinski 2008; Trofimovich & Isaacs 2012); Other features (see below)	Phonemic divergences	Phonemic divergences

Table 8: Key aspects of three constructs: accentedness, comprehensibility & intelligibility

First, accentedness is a perceptual measure, usually measured with scalar ratings of the “noticeability” or “strength” of a person’s accent. Listeners have acute sensitivity to accent and usually emphasise segmentals to exemplify a certain accent, e.g., rhoticity for GAE. Listeners can also distinguish foreign-

accented speech from native-produced samples in three unexpected conditions: when they do not speak a language (Major, 2007), when they hear extracts of less than 30 ms of speech (Flege, 1984), and when they hear extracts played backwards (Derwing & Munro, 2009, 477; Munro et al., 2003), in other words with no segmental, grammatical and lexical information. Regarding non-segmental features which contribute to accent ratings, Kang (2010) found that pitch range and prominent stress measures were the best predictors, although Trofimovich and Baker (2006) did not find this; the latter found that pause duration and speech rate contributed more than stress timing or peak alignment (*ibid.*). Non-native rhythmic patterns have also been identified as strong predictors of accent ratings (Trofimovich & Isaacs, 2012), who also note the contribution of syllable-level errors. Slow speech rate and pausing were found to predict accent ratings by Kang, Rubin and Pickering (2010), Kang (2010) and O'Brien (2014), the latter two also finding that reduced pitch range influenced accent ratings.

The second construct, comprehensibility, is another perceptual measure which is most often assessed via scalar ratings. It is defined as “the listener’s perception of how easy or difficult it is to understand a given speech sample” (Derwing & Munro, 2009, 478).⁴² Less commonly, it has also been seen as a measurement of processing fluency (Munro, 2018a), assessed via reaction times. Already in 1995 (Munro & Derwing, 1995b) had paired listener ratings with response latency data, showing how L1 English listeners’ comprehensibility ratings correlated significantly with the amount of time it took them to process Mandarin-accented utterances. In terms of which speech features facilitate easy comprehensibility, much research remains to be done. Munro and Derwing (2006) tested the impact of functional load (FL) errors and found that low FL errors such as /d/ replacing /ð/ did not impact greatly on comprehensibility ratings but that high FL errors did, for example /l/ substituted for /n/. Kang and Moran (2014), analysing Cambridge ESOL examination candidate speech files, found similar results, with high FL errors decreasing drastically as overall proficiency levels increased. Similarly, Thomson summarises four studies (Trofimovich & Isaacs 2012; Isaacs & Trofimovich 2012; Saito et al., 2015, 2016) which measured segmental, suprasegmental, fluency, lexical, grammatical and discourse-level variables: “their findings suggest that if the goal of instruction is to achieve both global intelligibility and comprehensibility, a focus on developing a better command of vocabulary and more fluidity in accessing it will make L2 accented speech easier to understand.” (2018b, 23). This lends support to other findings which confirm that several factors impact comprehensibility, other than the speaker’s pronunciation. Derwing summarises these neatly in a “Key Concepts” document for www.pronunciationforteachers.com⁴³ (2017):

- lexical frequency (infrequent vocabulary may confuse the listener)
- grammatical accuracy (errors may cause increased processing time)
- speaker fluency (dysfluent speakers are more difficult to follow)
- use of familiar formulaic sequences (expectations are met if common chunks are employed)
- topic familiarity (familiar topics are easier to follow)
- familiarity with a particular accent (there are mixed findings on this, but in some instances listeners perform better if they are familiar with the accent)
- ambient noise (noise has a negative effect on comprehensibility)
- age of listener (senior listeners generally have more difficulty)
- individual differences (some people are simply better at understanding accented speech)

Controlling for so many variables is challenging yet necessary, when selecting listeners, developing stimuli and designing protocols to study any of the three constructs. However, Thomson cautions that listener judgments of comprehensibility “may not provide the most valid assessment of processing

⁴² The notion of comfort was already evoked in Abercrombie’s 1949 “comfortable intelligibility” (120).

⁴³ The 'Pronunciation for Teachers' website (<http://www.pronunciationforteachers.com/>), created in 2016 by John Levis and Sinem Sonsaat-Hegelheimer.

difficulty, which outside of an experimental context, is normally considered to be subconscious” (2017, 24). Using self-reports may also be subject to bias: “a listener may overestimate or underestimate comprehensibility out of a desire to not be overly judgmental. However, the high inter-rater reliability across many studies suggests that this is not commonly a factor” (ibid.). It is perhaps time for applied linguists to nonetheless use reaction time measures more widely, as a less biased window on comprehensibility, or to at least further test the correlations between comprehensibility and processing fluency, instead of operationalizing it as a subjective evaluation.

Intelligibility is the third construct to come out of Derwing and Munro’s 1995 papers and is defined as “the degree of a listener’s actual comprehension of an utterance” (Derwing & Munro, 2009, 478). Unfortunately, the terms comprehensibility and intelligibility have been used inconsistently in some recent studies (see Thomson, 2018b for a discussion) but making the distinction is essential because “it is an empirically sound concept that will provide a basis for a wide range of pedagogically-oriented research in the future” (Munro, 2011, 13). Munro emphasises how we need to focus our efforts on exploring how most effectively to apply the concept, as it is not “a passing fad” in language pedagogy:

While some such work will continue to focus on phonetic issues, more consideration needs to be given to the effects of speaking and listening conditions on L2 speech and to speaker behaviours that facilitate comprehension. We also need to expand our investigations to a wider range of listener factors such as aging. A final, potentially fruitful line of work is the development of ways to improve people’s receptivity to different patterns of speech. (ibid.)

For him, intelligibility is THE crucial construct in communication: “If there is no intelligibility, communication has failed” (2011 13). However, to operationalise and measure actual understanding is quite tricky, and each method has its advantages and disadvantages. Using scalar ratings seems questionable; we may feel certain we have understood something and yet be completely wrong. Scalar ratings were included in a comparison of five measurement techniques by Kang et al. (2018): scalar judgments to indicate what percentage of words listeners felt they had understood; a T/F sentence verification task; a transcription task; cloze exercises to test perception of nonsense sentences and of filtered sentences (low-pass filtered audio, providing only prosodic cues). Benefitting from an ETS TOEFL grant,⁴⁴ their goal was to “determine which approach to measuring intelligibility would be most reliable for predicting listener comprehension” (ibid.). Overall, they found that “quantifiable features of the speech signal in each intelligibility task type significantly predicted the intelligibility scores, but that the relative contribution of each cluster of features differed depending on the intelligibility measure used” (ibid., 137). The best predictor of a listener’s comprehension score was found to be the measure of intelligibility based on the nonsense sentence exercise.

According to Munro and Derwing, one of the “most robust findings that has emerged from every study we have done” (2011, 479), is that “it is possible to be completely intelligible and yet be perceived as having a heavy accent. The reverse doesn’t happen” (ibid., 478). Recent research has confirmed that intelligibility and accentedness are partially independent (Jułkowska & Cebrian, 2015). The dynamic nature of the three constructs is also highlighted by their research, when Munro and Derwing conclude that the three “can change over time, on their own, and as a result of instruction” (2011, 480). Other research has also shown this (for example Trofimovich, et al., 2009; Yan & Ginther, 2017). Therefore, although some continue to doubt the usefulness of pronunciation instruction, research has shown that speakers can become more intelligible despite their accent.

⁴⁴ In 2006, Jenkins had already emphasized a need for testing bodies to change their paradigms, which Kang has furthered. The fact that a major testing corporation (ETS) has been willing to fund such research is evidence not only of their recognition of the importance of pronunciation but also of the legitimacy of the work done by Kang and her colleagues. Cambridge ESOL had already shown equal trust, allowing Kang & Moran to access 120 speech files from examinations (2014).

Understanding the language features which contribute to ratings will also help language teachers to prioritise in pronunciation instruction. L2 speech research should thus provide information that enables “practitioners to identify and integrate information about linguistic influences on comprehensibility into their teaching to enhance learners’ success in communicative settings” (Saito et al., 2015, 5). Derwing warns that “focusing solely on accent as opposed to comprehensibility and/or intelligibility may result in no appreciable improvement in the latter speech dimension, and in fact, can result in less comprehensible speech” (2017, 2; see Derwing & Munro, 2015 for examples of accent reduction leading to less comprehensible pronunciation). Thomson (2018b) neatly summarises research findings before making a recommendation for teachers:

phonemic divergences in L2 speech influence accent, intelligibility and comprehensibility, while phonetic divergences only affect accent ratings, a finding later replicated by Zielinski (2008) and by Trofimovich and Isaacs (2012). Given the stated goal of improving intelligibility rather than accent, instruction should not focus on the mispronunciation of sounds that are ultimately still recognized as a member of the target category. (22)

As an example, Thomson points out that using trilled /r/ for the English approximant does not need urgent correction: “the former is still perceived by English listeners as an /r/” (ibid.), in contrast with substituting /l/ for /n/. This is good advice if the Intelligibility Principle underlies the rationale of an English class, as would normally be the case in an ESL or EIL context, but sometimes it is difficult to determine whether an EFL class should not also adhere to the same principle, rather than the more usual Nateness Principle. Regardless of a context’s specificities (ESL, EIL or EFL), the research shows that “focusing on features that uniquely contribute to accentedness will have little impact on intelligibility (e.g., the interdental fricatives in English).” (ibid., 23). However, he cautions that there has not yet been enough research on the relative contribution to intelligibility ratings of phonemic and word stress errors (22), although Isaacs and Trofimovich did find word stress errors correlated with comprehensibility ratings (2012) for L2 learners of all proficiency levels. Overall, Thomson (2018b) pinpoints a gap in the research, identifying contexts where both comprehensibility and intelligibility might be jointly the most suitable instructional goal (25).

3.2. Three research perspectives

North American research into intelligibility is informed by three broad perspectives according to the relevant learner population and locus:

- International Teaching Assistants (in the classroom);
- immigrants or refugees (in the community);
- children and adults dealing with impaired or variable speech (in the lab).

The specificity of each context has influenced the related research, so I will address each in turn, keeping in mind that researchers tend to work primarily but rarely exclusively within one perspective. For each I will also briefly mention pertinent work being done in Europe.

The first perspective could be referred to as “in the classroom”. In the 1970s-80s, more and more (primarily) American universities hired International Teaching Assistants (ITAs), often to teach first-year/101 level courses. Most probably due to high American tuition fees,⁴⁵ if students had trouble understanding their ITA they tended to lodge official complaints (and a few sued their university) so

⁴⁵ In Canada, where tuition fees are much lower, the “ITA problem” does not seem to exist (Thomson, 2020, personal communication, April 2020).

that by the mid-1980s it was enough of a problem⁴⁶ that many universities were forced to develop training programs for their ITAs,⁴⁷ to certify their comprehensibility. Several states passed laws to this effect. For example, the State of Ohio requires “state-supported colleges and universities to ensure that instruction to students is provided only by teaching assistants who have demonstrated oral proficiency in the use of the English language”.⁴⁸ In response, Ohio State University created the Spoken English Program in 1986.⁴⁹ In 1984 UCLA had already created its Instructor Development Program (under the Division of Continuing Education) and linked it to its American Language Institute (opened in 1975),⁵⁰ while Northwestern University in 1992 launched the Searle Center for Teaching Excellence.⁵¹ Various local means of assessment were put in place and a spoken English proficiency test was also developed, ETS’ Test of Spoken English (TSE).⁵² It was structured as follows, according to the 2008 ETS web site:

The Test of Spoken English™ (TSE®) consists of nine items, each of which asks test takers to respond with appropriate answers or discussion. Examples of these speech activity items include narrating, recommending, persuading and giving and supporting an opinion. The TSE test lasts approximately 20 minutes. Test takers will be asked to

- Tell a story based on a six-picture sequence and answer a related question
- Describe a graph and answer a related question
- Respond to two questions about ideas
- Respond to three questions in the role of someone in a workplace situation.

[...] At the end of the preparation time, test takers will begin speaking after they hear a beep. They have 60 seconds from that point to answer each question. After 60 seconds, they will hear another beep, which indicates that they should stop speaking and listen to the next question.

⁴⁶ Moyer (2013) calls it “the international teaching assistant controversy” (116).

⁴⁷ See Jia & Bergerson (2008) for more details.

⁴⁸ See <https://sites.ehe.osu.edu/esl/files/2011/05/StateLaw.pdf>

⁴⁹ <https://esl.ehe.osu.edu/programs/spoken-english-program/>: “Ohio State’s Spoken English Program (SEP) was established in 1986 to train and certify international teaching assistants in accordance with Ohio State Law. Spoken English screens all prospective ITA’s and provides coursework for those who require it. The coursework in Spoken English is designed to improve spoken English fluency and pronunciation and to provide practice instruction in various language, intercultural and teaching skills.”

⁵⁰ <http://instructor.uclaextension.edu/development/> : “Your success is central to Extension’s success. Whether new to the classroom or experienced, many instructors will benefit from the special workshops and peer-led programs we offer through the Instructor Development Program (IDP). Over 15,000 have participated in this award-winning program since its inception in 1984. We especially invite new instructors to attend the *New Instructor Orientation* event offered every quarter.”

<http://international.uclaextension.edu/alc/>: “The American Language Center (ALC) is established to teach English as a second language. Today the program draws an annual enrollment of over 3,000 international students from over 40 countries, as well as hundreds of US citizens and residents for whom English is a second language.”

⁵¹ <https://www.northwestern.edu/searle/about/mission-and-history.html>: “The Searle Center was established in 1992, in response to faculty and administrators calling for a designated unit devoted to teaching and learning in higher education. This was not the first Center of its kind at the University; throughout the mid-seventies and eighties the School of Education and Social Policy (SESP) had maintained its own Teaching Center. But under the auspices of President Arnie Weber, a commission led by SESP Professor Robert Menges recommended that the new Center be open to all faculty and graduate students from across the University, and as such, be an independent entity. Originally called the Center for Effective Teaching, the Center was renamed a year later as the Searle Center for Teaching Excellence, following the generous donation of the Searle Family. In 2013, the center took on its current name.”

⁵² TSE was replaced in 2010 by the TOEFL IBT speaking test.

To prepare ITAs for this commercial certification – and/or for local assessments – courses were developed to work not only on the test-format questions, but also on all aspects of spoken interaction with students: delivering lectures, managing individual tutorials, providing feedback in real-time during class, etc. Intelligibility was integrated into broader communicative exercises and objectives, as outside the ESL classroom – on campus and beyond – learners would encounter a variety of Englishes on a daily basis. Pronunciation priorities had to be set, for both segmental and suprasegmental features, and teaching was subject to strict budget and time constraints. In the best situations, certain teachers were also researchers and/or they worked closely with researchers, to determine how best to help these ITAs. These training programmes still exist and are beginning to appear in European EFL contexts in the form of teacher training for English Medium Instruction. Simultaneously, a host of research projects are being carried out in different countries, of which a selection of publications would include Smit (2010) and Richter (2019) working in Austria, Hendriks et al. (2018) in Netherlands, Pagèze (2020) in France and Lacabex-Gomez & Gallardo (2018) and Rallo et al. (2015) in Spain.

A second category of research focused initially on immigrant populations and the efficiency of their English lessons: the “in the community” perspective. Derwing and Munro (2005, 379) state that for these learners the ESL context has higher potential for miscommunications and language-based discrimination than in EFL or EIL contexts:

... understanding of accent is needed, not only on the part of instructors and applied linguists, but also by the general public. [...] Like Jenkins, we argue that mutual intelligibility is the paramount concern for second language learners; however, ESL learners have to make themselves understood to a wide range of interlocutors within a context where their L2 is the primary language for communication and where, in many cases, NSs are the majority. In addition, the purposes for communication may vary to a greater extent when immigrants integrate socially in the target culture, which is an important difference from EIL environments.

Such learners need to be as comprehensible as possible, as quickly as possible, in social and professional settings. How best to help them to be easily understood, given that their English is spoken with an accent and their interlocutors outside the ESL classroom might find that challenging? The quest resulted in several productive partnerships, the most well-known being two prolific Canadian researchers, Derwing and Munro.⁵³ Comprehensibility, or ease of understanding, is another perception that they have frequently studied, perhaps due to their early work with Canadian immigrant communities. However, in their first paper together, in 1994 when they focused on accent in two speaking conditions (“Evaluations of foreign accent in extemporaneous and read material”), the three constructs had not yet been clearly differentiated in their work. Language research focused on immigrant populations also exists in European contexts,⁵⁴ and – although L2 pronunciation is not a major research focus – insightful work is nonetheless being done on attitudes toward accented speech, such as by Dupouy in France (2018, 2019)

⁵³ <https://www.sfu.ca/linguistics/people/adjunct-profiles/derwing.html>: “Dr. Derwing taught in the TESL area in the Faculty of Education at the University of Alberta from 1990-2014. Her research grew out of teaching experiences with adult Vietnamese students learning English. Although many had a strong grasp of grammar and vocabulary, most struggled with intelligibility. She started teaching a stand-alone pronunciation course, and simultaneously developed a lifelong interest on issues of L2 pronunciation – intelligibility, comprehensibility, accent, and fluency. Dr. Derwing met another teacher at the same institution - Murray Munro - who became a colleague, a friend, a co-investigator, and a co-author. They continue to work together. [...]”

⁵⁴ This would not be EFL but rather, for example, FLE/FLES (*Français langue étrangère ou seconde*), DaF/DaZ (*Deutsch als Fremdsprache oder Zweitsprache*) or ELE (*Español como lengua extranjera*) or EL2 (*Español L2*) which seems to be more common and prevents confusion with English as a Second Language. For example, there is a language course on ELE and EL2 at the UNED (the National University of Distance Education in Spain, like the Open University in the UK).

and by Bröcher-Drabent working with Chinese, Polish and Russian speakers of German in Germany (2018).

A third research perspective, the “lab” perspective, is dominated by cognitive scientists and psycholinguists, and focuses on how children and adults process speech. Of particular relevance is research on speech processing in adverse conditions, e.g., in noise, in non-speech sounds, in vocoded speech or as degraded, variable speech (a term which includes non-native or accented speech). English teachers trying to prioritise pronunciation features could learn much from work done at Northwestern University’s Speech Communication Lab.⁵⁵ The importance of work done by Ann Bradlow, director of the Lab, and her colleagues has been recognised by the attribution of two, sizeable multi-year National Institute of Health grants: 2004-2009 (Production and Perception of Clear Speech) and 2010-17 (Talker-Listener Alignment during Speech Production and Perception). She has also supervised 10 successful PhDs to completion in 15 years,⁵⁶ of which seven topics are pertinent to L2 English pronunciation teaching.⁵⁷ The number of PhDs supervised by Bradlow increased from 2010 onwards; if this is mirrored by other principal researchers and supervisors in other research groups in the cognitive sciences as well as in education and applied linguistics, it would confirm that the late Noughties marks the start of a rich period of work on accented speech.

Accented speech cannot be directly contrasted with “clear speech”, which Bradlow and her associates have defined as “a distinct, listener-oriented speaking style”, highlighting the impact of the listener on a speaker’s choices:

... it is crucial to understand which articulatory changes make clear speech more intelligible, it is equally important to understand how the interaction of various levels of linguistic structure and cognitive functioning determine clear speech output and how clear speech changes affect speech processing at different levels, such as sound category formation, speech segmentation, lexical access, and syntactic and prosodic processing. Expanding clear speech research to include language processing at various levels of linguistic structure will help shed light on the underlying mechanisms of speech production and perception that allow talkers to adapt their output and allow listeners to take advantage of the clear speech adjustments. (Smiljanic & Bradlow, 2009, pp259-260; see also Bradlow & Bent, 2002, *The clear speech effect for non-native listeners*.)

Their explicit goal is not to inform L2 language teaching, and yet Smiljanic & Bradlow express the desire to “extend clear speech research toward more naturalistic communication settings” (2009, 260). For them, doing so involves developing the “algorithms, signal-processing schemas and therapeutic strategies that enhance speech communication for listeners with various perception difficulties” (2009, 264), the usefulness of which may be difficult for language teachers to immediately decipher. Nonetheless, research into listeners for whom speech processing is a challenge is clearly useful for

⁵⁵ See Reed and Levis (2019) for several chapters touching on how the two worlds – the lab and the classroom – can connect in mutually beneficial ways, Levis (2019) on “teaching-oriented research” and his forthcoming “Connecting the dots between pronunciation research and practice” (in AH2021_01).

⁵⁶ <http://faculty.wcas.northwestern.edu/ann-bradlow/dissertations.html>

⁵⁷

- Cooper, 2016, Perceptual learning of accented speech by first and second language listeners
- L.A. Burchfield, 2015, Flexibility of speech perception and production strategies in Mandarin-English bilinguals
- C.R. Vaughn, 2014, Language being spoken and other indexical dimensions in monolingual and bilingual speech processing
- M. Kim, 2012, Phonetic accommodation after auditory exposure to native and non-native Speech
- K.J. Van Engen, 2010, Linguistic factors in speech in speech perception
- R.E. Baker, 2010, The acquisition of English focus marking by non-native speakers
- T. Bent, 2005, Perception and production of non-native prosodic categories

extending L2 English pronunciation research, if one accepts the parallel of describing non-native and/or foreign accented speech as *degraded*, *variable*, or *in noise*. In short, cognitive scientists like Bradlow,⁵⁸ Bent, Baese-Berk and others have contributed a large body of work to the study of intelligibility, which will be addressed in more detail in the section on foreign-accented speech (section 3.4.). The next section turns to methodological issues related to listener traits.

3.3. Listeners: A methodological fault line

The Cambridge Dictionary defines fault line as “a problem that may not be obvious and could cause something to fail”. Listeners are the ones who perceive and process accented L2 speech. Communication can fail, even if the speaker is an extremely proficient native speaker, because listener judgments “can be substantially influenced by listener background characteristics and construct-irrelevant characteristics of the speaker” (Yan & Ginther, 2017, 74). Within “background” I include a listener’s broader societal anchoring, as well as their formal experiences with a language, especially whether they have been taught primarily in an ESL, EFL or EIL setting. The need for this distinction becomes a bit clearer when Levis’ speaker-hearer framework for comprehensibility is examined (2006, 255). It is reproduced below to highlight the four interactional combinations possible between natives and non-natives (Table 9):

		<i>LISTENER</i>	
		<i>Native speaker</i>	<i>Non-native speaker</i>
<i>SPEAKER</i>	<i>Native speaker</i>	A) NS-NS	B) NS-NNS
	<i>Non-native speaker</i>	C) NNS-NS	D) NNS-NNS

Table 9: Levis’ framework for understanding comprehensibility (2006, 255)

Levis explains that Quadrant A “is usually assumed to be the standard against which successful communication is measured” (ibid.), whereas Quadrant B is what ESL contexts tend to involve: a NS teacher and NNS learners. Intelligibility studies tend to be located in Quadrant C where NSs listen to non-native speakers, and the last Quadrant D is “an increasingly common communicative setting where NSs are not involved”, making it the realm of ELF and EIL research. On the other hand, EFL and EIL teaching contexts tend to occupy both Quadrants B and D. One problem for transfer from research to instruction is that Quadrant C (the case of many intelligibility studies) involves NS listeners, whereas EFL and EIL teaching contexts have predominantly NNS listeners, but NS and NNS listeners do not process speech in the same way (Cutler, 2000/1).

Furthermore, listeners are a potential source of problems on a methodological level in studies of accentedness and comprehensibility, because these subjective evaluations can vary over time and they vary across individuals “depending on their familiarity with the accent, familiarity with the speaker, attitudes towards the accent, and perhaps their own language proficiency levels” (Yan & Ginther, 2017, 83). Some studies have also found the number of additional languages listeners speak (e.g., O’Brien, 2014) and/or their musical training to be a factor (e.g., O’Brien, 2014; Isaacs & Trofimovich, 2012). Stimuli (type, length, delivery format, etc.) also have an obvious impact (see for example Jułkowska & Cebrian, 2015). The vast number of intervening contextual variables would seem impossible to entirely

⁵⁸Bradlow is the principal investigator for the WildCat corpus (http://groups.linguistics.northwestern.edu/speech_comm_group/wildcat/): “The Wildcat Corpus of Native- and Foreign-Accented English is a corpus of both scripted and unscripted speech between native and non-native speakers of English. A key feature of this corpus is that for the unscripted part, the talkers are recorded in pairs (all possible pairing of native and non-native English speakers) as they work together on an interactive goal-oriented task (the Diapix task). The corpus can be used to answer basic phonetic questions about speech communication in situations where one or both of the conversation partners may be non-native speakers of the target language. The Wildcat Corpus is a project of Northwestern University’s Speech Communication Research Group.”

control but if we can safely assume that they affect ratings to varying degrees, we could try to isolate a few major ones. Native language and proficiency levels and/or broad familiarity with the target language are generally assumed to be the most powerful predictors of a listener's response to accented speech. For example, Major (2007) was interested only in accentedness and focused on how inexperienced listeners (i.e., unfamiliar with the language they were to rate) determine nativeness, in a proof-of-principle study:

... if non-native listeners unfamiliar with a language are able to identify a foreign accent with equal facility as native listeners, this would suggest that there might be universal features of non-native speech that are salient to listeners. (541)

The native language of listeners and speakers are presented in Table 10's overview of 17 studies, from 1982 to 2008, and the number of GoogleScholar citations, related to these three key constructs:⁵⁹

<i>Year</i>	<i># GS citations</i>	<i>Authors</i>	<i>Title</i>	<i>Identity: Listeners & speakers</i>
1982	248	Varonis & Gass	The comprehensibility of non-native speech	listeners = L1 American English speakers = low & high level ESL level ss xx *4 experiments, only indicates if NS or NNS (& proficiency), L1s not given
1989	425	Anderson-Hsieh & Koehler	The effect of foreign accent and speaking rate on native speaker comprehension	listeners = 224 L1 American English (undergrads) speakers = 3 L1 Chinese (MALES) + 1 American
1992	787	Anderson-Hsieh, Johnson & Koehler	The Relationship between native speaker judgments of non-native pronunciation and deviance in segmental, prosody, and syllable structure	listeners = 3 L1 English ESL teachers speakers = 60 MALES, 11 different L1s (Arabic, Armenian, Assamese, Chinese (n=21), Farsi, German, Greek, Hindi, Indonesian, Kannada, Korean (n=12), Malayam, Punjabi, Serbo-Croatian, Spanish, Tamil)
1994	121	Munro & Derwing	Evaluation of foreign accent in extemporaneous and read material	listeners = 44 (18 & 26) L1 Canadian English & all reported regular exposure to people with "Chinese" accents speakers = L1 Mandarin
1995A	682	Munro & Derwing	Processing time, accent and comprehensibility in the perception of native and foreign accented speech	listeners = 20 NSs English speakers = 10 L1 Eng (5M, 5F) + 10 L1 Mandarin (5M, 5F)
1995B	1173	Munro & Derwing	Foreign accent, comprehensibility and intelligibility in the speech of second language learners	listeners = 18 NSs English speakers = 10 L1 Mandarin ((5W, 5M)
1997	913	Derwing & Munro	Accent, intelligibility and comprehensibility: Evidence from four L1s	listeners = 26 NSs English, speakers = 48 (4 x 12 each of L1 Cantonese, Japanese, Polish, and Spanish)

⁵⁹ A more extensive overview table can be found in a meta-analysis by Hendriks, et al. (2018, 30), "The evaluation of lecturers' non-native-accented English: Dutch and German students' evaluations of different degrees of Dutch-accented and German-accented English of lecturers in higher education". The authors provide an excellent summary of the (quite often) contradictory findings of research into the language backgrounds of speakers and listeners (38 studies compared), as well as factors determining the effects of non-native accents (nine studies mentioned).

<i>Year</i>	<i># GS citations</i>	<i>Authors</i>	<i>Title</i>	<i>Identity: Listeners & speakers</i>
1998	716	Derwing, Munro & Wiebe	Evidence in favour of a broad framework for Pron Instruction	listeners = NS, 48 + 6 experienced ESL teachers speakers = 48 (3 x 16: 6M 10F; 5M 12F; 6M 10F)
2001	348	Munro & Derwing	Modeling Perceptions of the accentedness and comprehensibility of L2 speech	Experiment ONE: listeners = 48 L1 Canadian English speakers = 48 different L1s (Arabic, Cantonese, Japanese, Mandarin, Persian, Polish, Russian, Serbo-Croatian, Spanish, Turkish, Ukrainian, Vietnamese) (32W, 16M) Experiment TWO: listeners = 27 L1 Canadian English (18W, 9M) speakers = 10 L1 Mandarin (5W, 5M)
2001	188	Derwing & Munro	What speaking rates do non-native listeners prefer?	listeners = 22 L1 Mandarin (11W, 11M) + 20 mixed group of L1s (Arabic, Chichewa, Dutch, Finnish, French, Japanese, Kikuyu, Korean, Lozi, Persian, Br. Portugese, Russian, Setswana, Spanish, Swahili) speakers = 10 L1 Western Canadian English (5W, 5M) + 10 L1 Mandarin (5W, 5M)
2002	204	Derwing, Munro & Rossiter	Teaching Native Speakers to listen to foreign-accented speech	listeners = L1 English, 3 groups (20, 22 & 22) speakers = L1 Vietnamese
2004	657	Hahn	Primary stress & intelligibility: Research to motivate the teaching of suprasegmentals	listeners = 90 L1 North American ss speaker = 1 Male L1 Korean
2005	1092	Derwing & Munro	Second Language Accent & Pronunciation Teaching: A Research-based approach	*review article, not experimental
2006	484	Munro, Derwing & Morton	The Mutual Intelligibility of L2 Speech	listeners = 40 (10 L1 English + 10each of L1 Cantonese, Mandarin, Japanese) speakers = 48 (4 x 12 each: L1 Cantonese, Japanese, Polish, Spanish)
2006	329	Munro & Derwing	The functional load principle in ESL pronunciation instruction: An exploratory study *of consonants	listeners = 13 L1 Canadian English (10F, 1M) speakers = L1 Cantonese, 23 sentences drawn from database of 80 speakers
2007	122	Major	Identifying a foreign accent in an unfamiliar language	Listeners (56 total) = NNs **novel = unfamiliar with the language they were judging 4 groups : L1 BrazPort (11 : 10F, 1M), L1 AmEng w Port experience (15 : 8M, 7F), AmEng without Port exper (15 : 7M, 8F), ESL ss without Port exper (15 - 13 F, 2M : Korean 7, Mandarin 3, Japanese 2, German 1, bil. Taiwanese & Mandarin 1, bil. Russian & Ukrainian 1) speakers = 25 (5 NSs of Portugese + 20 NNSs whose L1 Am Eng)

<i>Year</i>	<i># GS citations</i>	<i>Authors</i>	<i>Title</i>	<i>Identity: Listeners & speakers</i>
2008	172	Zielinski	The listener: No longer the silent partner in reduced intelligibility	listeners 3 female L1 AUS Eng, no real experience listening to these L1 speakers speakers = 1xKorean, 1x Mandarin, 1x Vietnamese

Table 10: Listener and speaker L1 in 17 frequently cited studies

Table 10 represents what I feel is a “founders’ canon” of the 17 studies up to 2008 which are frequently cited in the literature, even today. GoogleScholar citation tallies were used to double-check my impressions. Twenty-one percent (1855) out of a total of 8861 GoogleScholar citations are attributed to the two 1995 articles by Munro & Derwing, confirming the seminal status of the two texts. It is perhaps logical that the 2005 review article has 1092 hits (12%), as it summarises a decade of intense work on these constructs. The next highest tally is their 1997 paper (913 hits), for which they recruited speakers from four L1s. The article with the fourth highest number of hits (787) dates from 1992, pre-dating the spread of the three constructs and involving three expert raters (ESL teachers). Surprisingly, Major’s 2007 study (fascinating partly because it is the only one where raters were unfamiliar with the language they heard) has the second lowest number of citations (122), almost matching the 1994 paper by Munro & Derwing, with 121.

Listener and speaker L1 identity are presented in the final column, which shows that only three of the 17 studies (in 2001, 2006 and 2007) used non-native listeners; otherwise, the listeners were almost exclusively North American native speakers of English (except for Zielinski’s Australian listeners). This might seem to indicate that the default “best judge” was the native speaker, but it more likely reveals the influence of the researchers’ ESL context on the types of listeners available. All the studies were done in ESL settings, in North America and Australia (one study: Zielinski 2008), where students and many colleagues come from diverse language backgrounds. It is noticeable that among the speakers in these studies, Asian L1s predominate, especially Mandarin Chinese. Above all, the fact that the research took place in an ESL context is important because listeners’ speech ratings are also influenced by the type of pronunciation pedagogy they had experienced or were experiencing in formal schooling.

Strong evidence for this influence can be found in the mixed methods study by Kang et al. (2016), using both perceptual ratings and interview data (short, informal group sessions, with about half their listeners). A total of 240 listeners (American, Vietnamese, and Arabic students) rated Vietnamese accented English for intelligibility, comprehensibility, and accentedness, in order to reveal the differential weighting of phonetic parameters in judging non-native accented speech. Both segmental features (consonants and vowels) and suprasegmental features (word and sentence stress) were independent variables. To create the stimuli, the L1 speakers of Vietnamese who recorded the sentences were asked to simulate common errors in specific places. Overall, the study confirmed that, regarding perception of accent, listeners attended to different features to make their judgments, and they were influenced by the type of pronunciation instruction they were receiving at the time. Concerning comprehensibility ratings, they found support for the interlanguage intelligibility benefit postulated by Bradlow and Bent (2003), the higher scores of the Vietnamese L1 listeners revealing the benefit of hearing an accented version of their own L1. Their results confirmed that “listeners’ background (native) language factor did play a considerable role in their comprehensibility judgments of accented speech” (Kang et al., 2016, 15). However, the authors argue that a crucial distinction must be made between non-native listeners in an EFL or in an ESL background, because their perceptual judgments of accented speech are impacted by the pronunciation pedagogy they experienced in formal language instruction (ibid., 16); this key insight into the meaning of the perceptual data came to light in the interviews of their mixed methods approach. The Vietnamese listeners prioritised segmental features (almost solely consonants) and had received teaching focused on consonants in an EFL setting in Vietnam, whereas the Arabic listeners (taking classes in an ESL environment at the time of the study) attended more to

suprasegmental features, similarly to the American listeners (L1 English). Teachers and their pedagogical choices or the broader language learning experience, thus, shape how listeners attend to accented speech (although to what degree remains unknown). Therefore, for the 17 studies in Table 10, even though we may not know the detailed language background for their listeners, it is worth keeping this contextual variable in mind for designing future studies. Moreover, it would be interesting to see if this result could be replicated in EFL or EIL contexts. If so, it will strengthen the call for pronunciation to be reconceptualised within language teaching.

Another study, Hahn's (2004) study on primary stress, illustrates how L2 pronunciation research can borrow a psycholinguistic tool (reaction times) to examine an applied linguistics question: how should segmentals and suprasegmentals be prioritised in pronunciation teaching? Published in a journal aimed at English language teachers,⁶⁰ it is often held up as empirical support for teaching suprasegmentals. Hahn adopted a common psycholinguistic method (a dual-task paradigm) and her listeners were native English-speakers. They did a reaction time task (a comprehensibility measure), had to recall content and do a short-answer quiz (intelligibility measures) and at the end evaluated the speaker (attitudinal questions in Likert-scale format, from Hahn's university's summative feedback form on classroom instruction). The independent variable was primary stress – correctly or incorrectly placed or missing. Although her results in terms of comprehensibility were not significant (for ease of processing measured through discourse processing times in a dual-task paradigm, not on a Likert-scale), listeners did give speakers more favourable ratings and recall more content when the primary stress was correctly placed.⁶¹ Thomson (2018b) could almost be praising Hahn's attempt to measure comprehensibility without scalar ratings, when he sounds a note of methodological caution:

With respect to comprehensibility, listener judgments may not provide the most valid assessment of processing difficulty, which outside of an experimental context, is normally considered to be subconscious. Listeners' self-report of how easy it is to process L2 accented speech may also be susceptible to bias. [...] However, the high inter-rater reliability across many studies suggests that this is not commonly a factor. (24)

The potential impact of subconscious bias on listeners' ratings – be they natives or non-natives – nonetheless points to reaction times as a possible measure of comprehensibility (e.g., Munro & Derwing, 1995a; Derwing & Munro, 1997).

3.4. Reactions to Foreign-Accented Speech (FAS)

Before exploring reactions to FAS, it is essential to define *accent*, *foreign accent*, *foreign-accented speech* and *L2 speech*. Accent only exists relative to a listener's perspective, and in the definition of *accent* proposed by Cristia et al. (2012) no reference is made to native or non-native speakers:

A talker may be described as accented if his/her speech diverges from that of the listener's systematically at the suprasegmental and/or segmental level. Consequently, if the listener speaks a "non-standard" regional variety, and the talker a standard variety, the latter would still be described as *accented*, because his/her speech deviates from that of the listener. Notice that we extend Wells' (1982) definition of accent, as deviations along the phonetic, phonotactic, phonological, and lexical levels, in order to encompass the suprasegmental level as well. (1)

⁶⁰ It was published in TESOL Quarterly, a professional, refereed journal, first published in 1967 and whose target audience is "individuals concerned with English language teaching and learning and standard English as a second dialect." (<https://onlinelibrary.wiley.com/journal/15457249>).

⁶¹ Hahn's (2004) results thus concur with Cutler's explanation (2000/1).

Foreign accent was defined in 1995 by Munro and Derwing as “non-pathological speech that differs in some noticeable respects from native speaker pronunciation norms” (1995a, 289), a definition which refers to native speakers and confirms the social norm as a foil. In this document, the definition of foreign-accented speech (FAS) used will be Moyer’s (2013), which she applies to both native and non-native speakers: “a set of dynamic segmental and suprasegmental habits that convey meaning along with social and situational affiliation” (11).⁶² FAS is of specific interest to me as a language teacher, because it is a source of variability in the speech signal, be it in terms of rhythm, intonation or segmentals, which impacts upon my learners’ ability to understand spoken English and/or to be understood when they speak English.

In their review article *Linguistic processing of accented speech across the lifespan*, Cristia et al. (2012) identify two recurring “beliefs” in the literature, the first being that “processing foreign and within-language accents is fundamentally different”, which they find misleading (11). In response, they recommend researchers abandon “the arbitrary distinctions language/dialect/foreign accent and replace them by (psycho) linguistic distance metrics” (ibid.). Such a change would take research beyond “the arbitrary ‘accent’ bins” which limit the field’s explanatory power:

These metrics should consider not only rhythmic, intonational, phonetic, phonological, and lexical similarity between the specific speech samples being used; but also the additional cognitive and/or social costs brought about by those changes, and which are dependent on certain characteristics of the listener group under study, ranging from degree of experience with the variety to social values associated with it. (ibid.)

This is a good example of cognitive scientists reaching beyond the lab and into the social world, recognising the dynamic interplay of cognitive and social factors in reactions to accented speech.

Therefore, this section will look at two aspects of reactions to FAS. First, two models of speech processing are presented, followed by the description of a successful teaching technique aimed at L2 vowel category formation: High Variability Phonetic Training, or HVPT. Then cognitive load and processing fluency will be examined regarding academic contexts, particularly English Medium Instruction where information processing takes place through the filter of FAS. Social aspects of reactions to FAS are examined in sub-section 3.4.b. crucial because speech which is perceived as “other” often negatively influences credibility judgments, by both native and non-native listeners⁶³. This is of obvious importance on internationalised (or internationalising) university campuses, when everyone will be “other” on a given day, in certain interactions. Finally, the less widespread construct of acceptability will be presented in section sub-3.4.c., for its impact on pronunciation teaching priorities. The objective is to explore how cognitive and social adaptation are possible for learners, in order to provide useful guidelines for designing pronunciation work.

3.4.a. Cognitive aspects

Speech perception is the hidden face of pronunciation and lies at the heart of my major research objective: help people to interact more easily despite the challenge of foreign-accented speech, especially within the microcosm of the university community. However, none of my research has used the experimental paradigms of psycholinguistics and cognitive psychology. Nonetheless, as the cognitive aspects of processing FAS inform many of my assumptions, it is necessary to condense relevant research findings from L2 speech perception. Therefore, this sub-section starts by looking at a Web-based training tool based on such findings. The tool is also a prime example of how ground-breaking research findings could be (but have not been) taken into the language classroom.

⁶² In this document the acronym FAS does not refer to foreign accent syndrome, which stems from neurological damage (see Moen 2000).

⁶³ See also Hanzlikova and Skarnitzl (2017) for a replication of Lev-Ari and Kayser’s 2010 study.

The *English Accent Coach*⁶⁴ is a Web-based training tool developed by three respected Canadian researchers (Thomson, Derwing and Munro). According to the FAQs on the EAC website, it is not designed to eliminate a learner's accent, rather:

It will help you address particular difficulties you have hearing and producing English sounds, making it easier for listeners to understand your message. [...] Training with EAC will help you process English sounds more efficiently. This can promote faster vocabulary learning and may also improve your ability to process and comprehend the speech of native speakers.

In general, listening differs for natives and non-natives, in terms of the language-specific processes by which they process spoken language. Cutler's (2000) *Listening to a second language through the ears of a first*, summarises a vast body of research into those differences. In short, one cause is a mismatch between L1 and L2 phonemic categories, which has been shown to lead to longer processing times as 'phantom words' are activated: "a learner's knowledge of a given word is not the same as ability to recognise it accurately or confidently when it occurs in speech (and to reject, as L1 listeners would, minimally different near-words)" (Broersma & Cutler, 2008, 31). Lexical activation processes are addressed by the *English Accent Coach* in relation to proficiency, in its explanation of who can benefit from using it:

Advanced speakers will require more effort to learn to hear sounds accurately in words that they currently know, because they have already established their own way of hearing and pronouncing those words. After learning to more accurately hear English sounds, advanced learners can then begin monitoring and correcting their pronunciation of already known words. Beginners will benefit by learning to accurately hear sounds before learning many words, allowing them to get pronunciation right from the beginning, before bad habits are established.

"Their own way" and "bad habits" are also referring to that categorisation mismatch, whereby phonetic details of speech may not be accessible to a listener.⁶⁵

The phenomenon of categorical perception is well-researched in infant L1 speech perception, as is the capacity to recognise the same utterances produced by different speakers. Regarding an L2, the (in)ability to perceive categorical differences, via perceptual learning, influences both perception and production. Perception and production, as well as categorical perception and generalization, are also addressed by High Variability Phonetic Training (HVPT). This is "a robust line of laboratory and pedagogical research", whose effects "can also occur in non-laboratory settings and have pedagogical potential for both perception and production of L2 sounds" (Barriuso & Hayes-Harb, 2018, 178, 187). Thomson (2018a), the most recognizable 'face' of HVPT promotion in L2 pronunciation research, defines it as:

... perceptual training (most often focusing on segmentals), in which the auditory training stimuli includes numerous samples, produced by multiple talkers, in varied phonetic contexts. This is atypical of variation found in most pronunciation training materials. (209)

HVPT exercises are quite straightforward: "Learners are first asked to indicate which speech sounds they perceive and are then provided with feedback on the accuracy of their responses", and such

⁶⁴ <https://www.englishaccentcoach.com/faq.aspx>

⁶⁵ Sometimes this is due to differences between their linguistic expectations and the reality of casual connected speech. For example, anecdotal evidence from colleagues around the world confirms the surprise of many learners, when faced with the assimilation or reduction processes which are so widespread in spoken English. Cauldwell's *Phonology for listening* (2013) addresses this quite thoroughly in a language teacher-friendly format; some of the exercises were integrated into a Moodle-platform course used with Psychology students at a French university (see AH2020_02).

feedback “can help to direct their attention to properties of segmental stimuli important for L2 category formation” (Thomson & Derwing, 2016, 89).

Category formation for new contrasts is at the heart of L2 speech processing, and a concise history of cross-language speech perception research is provided by Barrisuo and Hayes-Harb in their review of HVPT research. They state that by the mid-1990s the key difficulty in L2 speech perception had emerged from the research: the quest to identify “which types of acoustic variability are relevant to distinguishing new contrasts” (2018, 179). Table 11 provides a summary of research questions, methodology, results and conclusions from three seminal studies.⁶⁶

	Logan, Lively & Pisoni (1991)	Lively, Logan & Pisoni (1993)	Lively, Pisoni, Yamada, Tokhura & Yamada (1994)
Research Question	Can learners be trained to ignore irrelevant variability and so, focus on “those acoustic differences that were important to distinguishing the contrasting sounds”? (2018, 179)	Can learners identify new words and deal with new talkers?	Can different groups of participants replicate these results? Can they retain improvements over 3 and 6 months?
Methodology	Forced-choice identification task	Added a generalization task	added a new population + long-term retention
Main Result	Training resulted in improvement in identifying contrasting /r/ and /l/	Experiment 1: subjects could identify new words by familiar and unfamiliar talkers Experiment 2: improved over time but could not generalize to new talker	Training improved performance, and better performance on new words with familiar talker vs unfamiliar talker. Three months later still significantly better performance. Six months later no better & no worse than at 3 months.
Conclusion	Such training “was more robust than earlier training techniques” (1991, 874).	“Talker variability aids in robust category formation – that is, the development of an L2 category that is important to the learner in listening and producing the L2” (2018, 179)	Such training “can lead to long-term changes in how the new sound categories are represented in memory” (2018, 180).

Table 11: Three seminal studies’ key contents

Each study slightly modified the protocol, in order to test new variables, leading to incremental advances. All found that HVPT worked. While these studies focused on perception, the logical follow-up question concerns whether improved perception leads to improved production. Already in 1999 Bradlow et al. had identified a link:

... successful perceptual learning leads directly to corresponding improvement in speech production—specifically, in speech motor control and articulation. Taken together, these results support the claim that phonological acquisition via auditory–perceptual input involves concurrent development in both speech perception and speech production. (984)

Bradlow’s 1999 study involved L1 Japanese learners of English as evaluated by L1 English listeners. However, when Thomson and Derwing (2016) worked with English learners from diverse L1s, their findings led them to conclude that “perceptual training on its own is insufficient to promote maximal

⁶⁶ The key points from Barrisuo & Hayes-Harb (2018) are condensed here, after verification of direct quotes compared to the original 1990s publications.

improvement” (95). One reason for the difference in conclusions might stem from methodological variations: Barriuso and Hayes-Harb (2018, 181) categorise variations which contribute to the efficacy of an HVPT protocol as follows:

- Stimulus variability: what types should be included? How many phonetic environments? New or familiar? How many talkers?
- Learner differences: what are they due to, so that the HVPT protocol can be modified accordingly? (e.g., perceptual aptitude, L1 vowel systems, EFL vs ESL contexts) This also requires studies to analyse data for individual learners, not just means.
- Training stimuli: set size, real words vs nonwords, synthetic enhancement (increased salience of acoustic cues).
- Procedures: duration, task type (identification or discrimination), audiovisual vs audio-only.

The research agenda to be derived from testing these variables (and their interactions) is vast, especially if aimed at the practical applications of these findings in non-laboratory settings, i.e., the contexts which interest language teachers the most. Some studies have tested HVPT outside the lab, for example Wang and Munro (2004) or Thomson (2011) and confirm the lab-based findings: training improved perception, as measured by ability to identify L2 vowel contrasts. Thomson even found improvement in pronunciation in the trained CV contexts and four new contexts, for 19 of the 22 participants, leading him to conclude that “Somewhat unexpectedly, this study indicates that perceptual training in one phonetic environment can also lead to improved speech intelligibility in a different phonetic environment” (2011, 758) – and even without production training. The title of that article says it all: *Targeting second language vowel perception improves pronunciation*. His follow-up study (2012) confirmed that even using acoustically modified stimuli (lengthened vowels), participants improved their perception and could generalise to a new talker and two of four new contexts, with improvement still present after one month. In his definitive 2018 meta-analysis of 32 studies that have used HVPT, Thomson (2018a) found “compelling evidence that HVPT is a very effective pronunciation training tool, and the resulting improvement is long-lasting” (208), and yet “the lack of any identifiable best approach to HVPT is self-evident” (221). He provides a detailed critique of such studies and makes recommendations for future research, the content of which sometimes overlaps with the list of Barriuso and Hayes-Harb mentioned above. This critique is summarised below, integrating relevant direct citations:

- Individual differences: learner background details are provided but “researchers rarely interpret results with reference to that information” (221). There are exceptions, e.g., Iverson et al. (2012) who found that HVPT can work in both EFL and ESL contexts.
- Learner L1s and target L2 sounds:
 - o Research has focused mostly on English L2 learners “and specifically, standard varieties of English. By necessity, any given application of HVPT must be constrained to a single variety, since categorical boundaries are, by definition, dialect specific. However, there are likely opportunities to test HVPT in contexts where other varieties are spoken.” (Thomson, 2018a, 222). Moreover, most of the studies focus on “individuals that have had relatively little experience with natively like speech in the L2. That is, individuals who learned English in school without having spent much time in an English-speaking country” (Iverson et al., 2012, 146), therefore in an EFL context.
 - o Many studies fall back on contrastive analysis or intuition to choose which sounds are problematic. One solution to this would be open-ended HVPT, where learners “test their confusions across multiple categories, to determine where they need improvement” (Thomson, 2018a, 222-223).

- Experimental groups and sample sizes: The use of convenience sampling has resulted in often less-than-ideal sample sizes but using the cloud to facilitate recruiting more participants could solve this problem.
- Number of stimulus talkers & phonetic contexts: Most studies use 2-6 talkers but Thomson and Derwing (2016) used 30. Similarly, “little is known about how many phonetic contexts should be utilised for greatest effect, and whether this depends on the specific target sound, or sounds, being learned” (Thomson, 2018a, 223). Some studies are now testing the use of nonwords in HVPT, with similarly positive results (see Mora et al. forthcoming, in AH2021_01).
- Presentation of stimuli: Comparing adaptive and non-adaptive training remains to be done. Using training sessions blocked on a single talker seems advantageous to learning, as does a forced choice paradigm rather than an AX discrimination one. Iverson et al. (2012, 158) caution that “The level of phonetic processing that is measured by category discrimination tasks is thus likely important to L2 learning, but category discrimination assesses perception differently than identification tasks”.
- Modifications to canonical HVPT: Unfortunately, these make it difficult to compare studies and pinpoint which modification was responsible for gains.
- Duration of training: This remains unknown, both for overall training length and length of individual sessions.
- Delayed post-tests: Longitudinal studies are needed⁶⁷, “to determine whether learning is permanent, and to what extent it is manifested in production later on in learners’ L2 development” (Thomson, 2018a, 225).
- Testing of production: Speech tasks must be carefully selected, steering away from the current reliance on reading tasks in favour of elicited imitation or picture-naming tasks. Most importantly, Thomson (2018a) underscores the importance of human raters, as only they “can accurately determine to what extent that change is on target, and whether it contributes to the speaker’ intelligibility and comprehensibility (processability) for listeners, which ought to be the ultimate goal.” (225, citing Thomson & Derwing, 2015)

It is not surprising that Thomson should end by reminding readers of the importance of criteria beyond nativeness, for prioritising pronunciation instruction. This highlights the teacher’s responsibility to make informed choices, which seems obvious and yet might be even more crucial (esp. in EFL) than earlier thought, because L2 language input – quantity, quality and type – might be more influential than expected. For example, in 2011 Thomson argued, on the subject of factors constraining ultimate attainment in adult second language (L2) pronunciation, “that first language influence and the quantity and quality of L2 phonetic input account for much of the variation in the degree of foreign accent found across adult L2 learners” (abstract). The following year, Iverson et al. concluded that “auditory training improves efficiency of categorisation in a non-superficial manner (e.g., generalises to new stimuli and is retained over time; Bradlow et al., 1999; Lively et al., 1993, Logan et al., 1991) and provides a useful addition to real-world L2 experience” (2012, 159). Recently, Saito et al. (2019) highlight the influence of experience on perceptual adaptation, which holds true not only for L1 but also for L2:

... *first language* listeners have the capacity to adjust, revise and develop their existing representations when exposed to systematic and novel deviations from familiar linguistic regularities. After a sufficient amount of experience, listeners become not only better at recognizing a range of unfamiliar sounds (e.g., Norris, McQueen & Cutler, 2003), but also at understanding foreign accents (e.g., Bradlow & Bent, 2008). The findings of the current study can be interpreted as providing some of the first evidence for the occurrence of this phenomenon among *second language listeners* themselves. (1148) (*italics as in original)

⁶⁷ Arguably, this is necessary in the entire field of L2 pronunciation research.

Witteman et al. (2013) also found that listener familiarity with the L2 (combined with foreign accent strength) hastens perceptual adaptation.

Research findings seem to be converging on Flege’s recent conclusion that a paradigm shift is required, from a focus on the maturational factor to the input factor. In other words, it is time to recognise that input may prove to be more important than age in L2 acquisition (2018; see Flege & Wayland, 2019 for an example of an experiment to collect the necessary data to test this). This had been something of a bugbear for Flege, from the start of his career:

Over the years I have written a great deal about L2 acquisition. My research led me, and then eventually others, to question the view that L2 speech learning is doomed to failure if it occurs following the end of a "critical period". I'll admit to having had doubts about this theory right from the start, even before the results of our research program led me for well-founded scientific reasons to reject such a conclusion. (http://jimflege.com/about_me.html)

In his 2018 article, *It’s input that matters most, not age*, Flege accepts that Lenneberg’s 1967 Critical Period Hypothesis holds for establishing an L1, but he finds its extension to later L2 learning doubtful – partly because “Some effects attributed to age of L2 exposure may be due to uncontrolled variation in the quantity and/or quality of input” (2018, 920). Moreover, as he had already cautioned in 2011, “no one variable will ever be able to account for the full range of L2 performance that is typically seen” (81).

Nonetheless, if input is a crucial factor (or “experience”, in the myriad different ways it is defined or measured), then we cannot ignore the broader learning environment – the family, classroom, workplace, society. To establish how experiential factors which influence perception are modelled, here I will present a brief comparison of Flege’s Speech Learning Model (SLM) (1995, 2005) and Best’s Perceptual Assimilation Model (PAM) (1995; Best & Tyler, 2007; Best et al., 2016), as the two predominant models of speech perception in Applied Linguistics. Much of this analysis is based on Best and Tyler’s 2007 *Non-native and second language speech perception: Commonalities and complementarities*. Their article compares the two models and Table 12 presents some of the differences they highlight (2007, 15, 19-22):

Speech Learning Model (SLM)	Perceptual Assimilation Model (PAM)
<p>“designed to address production/perception of L2 speech by L2 learners”</p> <ul style="list-style-type: none"> • a model of L2 speech acquisition • has focused on experienced listeners defined as late L2 learners = “in the process of <i>actively learning</i> an L2 to achieve functional, communicative goals, that is, not merely in a classroom for satisfaction of educational requirements.” (19) (*original italics) • “participants of L2-learner studies generally have commenced learning at older ages (later childhood, adolescence or adulthood), show a wider range of L1/L2 usage and tend to live in more L2-biased environments” (15) 	<p>“developed specifically to explain non-native speech perception by naïve listeners” = “functional monolinguals i.e., not actively learning or using an L2, and are linguistically naïve to the target language of the test stimuli” (19)</p>

Table 12: Comparison of main aspects, SLM & PAM

Most of Flege’s work concerns segmentals acquired by immigrants in an ESL context, with numerous studies using measures of strength of foreign accent and Age on Arrival (AOA). In contrast, Best’s work has treated tones as well as segmentals, articulatory and acoustic information, and has focused on the interaction between phonetics and phonology, working with infants, toddlers, children and adults, and from a variety of L1s. From these different perspectives, both models conceptualise characteristics of naïve listeners and L2 learners in speech perception research “as lying somewhere along three separate

dimensions” (Best & Tyler, 2007, 15), or continuums: L1 acquisition at onset of L2 learning, the ratio of L1/L2 usage on an average daily basis, and the ratio of L1/L2 in the language environment. Additionally, both models recognise how difficult it is to operationalise and measure fluency (proficiency, competency) and balance (language dominance) – even though these concepts are often used in studies of L2 learners, particularly bilinguals. Early in their article they clarify that:

Neither model was developed to address both situations although each has been cited as though it had been. [...] Whereas both PAM and SLM have sometimes been characterized as being based solely on L1 phonological distinctions (i.e., conceptually comparable to the Contrastive Analysis Hypothesis: CAH) and/or on L1 interference (i.e., phonological suppression), these characteristics are misrepresentative. Neither PAM nor SLM restrict their predictions about native language influences solely to the influence of phonological contrasts in the L1. (ibid., 21-22)

This begs the question of how French university-level students in France could be categorised. They have finished acquiring their L1 (French), in a maturational sense. They are L2 learners in an EFL context with varying amounts of “experience” of English, and arguably none of them are naïve to English (given schooling and the presence of English in France’s cultural landscape). However, some are similar to “functional monolinguals” in that they often have very low ratios of L2 English usage outside the classroom. It would be useful to have a PAM model that could account for their L2 speech perception, which is what Best and Tyler are attempting. Their “PAM-L2” model would be helpful because of the conceptualisation it offers, including a changing environment and a learner with the capacity for change:

If both the language environment and the individual who is experiencing it are ever-changing, listener and input variations are likely to have substantial impact on perception of native and non-native speech, especially if the perceiver is acquiring an L2. (32)

This leads the two authors to reaffirm the distinction between SLA (environments where exposure to naturally variable target language is predominant, as in an ESL context) and FLA (environments where the target language is not widely used and foreign language acquisition occurs mainly in a classroom, i.e., classroom second language learning⁶⁸). My French university students inhabit an FLA environment, which is “notably less ideal with respect to the natural ecology of language learning” (19). However, this is precisely where focused attention on variability of input would be quite valuable.

Looking at English Medium Instruction in French higher education, where teachers may not be native French speakers, I see an opportunity to include complementary High Variability Phonetic Training work for listeners and speakers, be they students and/or teachers, to exploit what Best and Tyler describe in negative terms:

When spoken in the classroom, the L2 is often uttered by L1-accented teachers or, at best, by speakers from diverse L2 varieties, thus presenting a variable (or incorrect) model of L2 phonetic details. (2007, 19)

⁶⁸ A Google search (June 4, 2020) reveals how numerous terms exist for this.

- classroom second language learning: 342,000,000 hits
- classroom foreign language learning: 233,000,000 hits
- instructed foreign language acquisition: 73,500,000 hits
- classroom second language acquisition: 63,000,000 hits
- instructed second language learning: 51,800,000
- classroom foreign language acquisition: 40,100,000 hits
- instructed foreign language learning: 15,100,000
- instructed second language acquisition: 11,400,000

This is where the authors express caution:

... perceptual findings for FLA listeners should not be conflated with those for L2 listeners (SLA). Nonetheless, FLA conditions do provide a potentially useful (though not tightly controlled) basis of comparison to SLA. FLA listeners, like L2 listeners but unlike monolinguals, have exposure to the target language. Yet unlike L2 listeners or monolinguals, FLA listeners have L2 exposure primarily through *formal instruction in a restricted setting, with little or unsystematic conversational experience with native speakers.*" (*original italics)

Potential opportunities abound for conversational experience with both native and non-native speakers on an internationalised French university campus. In that context, and as a complement to EMI courses, an HVPT paradigm could be exploited. It could provide perceptual training not only in L1-accented speech but also in L2 varieties or dialectal differences, especially given the fact that such differences can interfere even with native listeners' perception (Bundgaard-Nielsen & Bohn, 2004). They looked specifically at Danes learning English as a foreign language and their findings on the intelligibility of monophthongs show that, beyond any L1 transfer onto the L2 sound system, the very heterogeneity of English vowel systems is an obstacle to learning English vowels. Their findings highlight that it cannot be assumed that learners in an EFL context are exposed to a sort of homogeneous sound system, even less so in EMI environments. If that heterogeneity is due to exposure (input?) to different teachers' voices or voices in the media, can the structured input of HVPT contribute to improving perceptual adaptation – leading also to the 'added perk' of pronunciation gains?

Language teachers who, not seeing tangible changes in learners' pronunciation, might despair and yet they could draw hope from Flege's Speech Learning Model, which "assumes that as learning progresses, some aspects of the L2 system can be acquired at a perceptual level and that production will eventually align with the newly acquired knowledge" (Munro, 2018b, 278). If only more teachers knew that perceptual gains, though 'hidden', do occur. It is also inspiring to know that even adult L2 learners can speak an L2 without an accent (see Bongaerts, 1999; Bongaerts et al., 1995, 1997). To that end, Thomson (2011) recommends that pedagogical interventions

... maximize the impact of experience, while ensuring that learners are exposed to sufficient variation that they become aware of how L2 sounds differ from L1 categories. If adult L2 learners are able to obtain large quantities of high quality L2 input, significant gains in pronunciation might be achieved over a shorter period of time. (747)

Learners in EFL classes do not receive such input via naturalistic settings, but HVPT applications (such as *English Accent Coach*) could complement classroom time by providing the necessary input, in line with the paradigm shift from age-related effects to a focus on the input factor. If HVPT is therefore some sort of perceptual training "miracle cure", it is hard to understand why so few language teachers have ever heard of it, beyond "a lack of teacher and learner familiarity with the science behind them" (ibid.).

Academic publishers have been trying to make it easier for language teachers to access research findings and apply them in their classrooms. Key players in Applied Linguistics and in Education have been publishing books to debunk powerful "myths". The best example in English is the University of Michigan Press' ELT "best practices" series, *Applying second language research to classroom teaching*, which to date offers six titles dealing with myths in: Pronunciation, Listening, SLA, Vocabulary, Writing, Assessment. The best example of an equivalent venture in France is the *Mythes & Réalités* series,⁶⁹ which includes in its eight titles *L'apprentissage des langues* and *Les neurosciences en éducation*, both of which address the cognitive aspects of language learning.

⁶⁹ <https://www.editions-retz.com/collection/mythes-et-realites/>

The series editor for *Mythes & Réalités*, the psychology professor André Tricot,⁷⁰ has made the concept of cognitive load more widely known amongst schoolteachers in France.⁷¹ Cognitive load is defined broadly by the APA as “the relative demand imposed by a particular task, in terms of mental resources required”.⁷² Cognitive load theory was first elaborated by Sweller in the 1980s⁷³ associated with instructional design and has since been used by dozens of researchers in diverse contexts. To be brief, and without going into the biological evolutionary framework posited by Sweller, there are two types of cognitive load: *intrinsic* to the instructional material or *extrinsic*, regarding “the manner in which the material is presented and the activities required of learners” (Sweller et al., 2011, vii). The manner could include, for example, writing on a board, illustrations, accented speech, use of L1, or any combination of these. Extrinsic cognitive load is a particularly important concept in relation to English Medium Instruction in European higher education, because neurological measures confirm that FAS increases the demand on auditory processing:

The neuroimaging literature on FAS perception is scant. However, perception of foreign phonemes has been shown to engage multiple neural regions. [...] Accordingly, processing of artificially distorted speech which reduces speech intelligibility but does not necessarily introduce novel phonological representations, has been shown to involve additional recruitment of the superior temporal areas, the motor areas, and the insula, but not the inferior frontal gyrus (for review, see Adank, 2012). These findings lead to two predictions regarding neural activity during FAS processing. First, lack of adaptation to FAS would manifest in increased activity in the superior temporal auditory areas, due to the increased demand on auditory input processing. (Yi et al., 2014, 1)

The ability to process FAS as efficiently as possible is a factor in successful learning an international academic context. Learning, according to the APA,

... involves consciously or nonconsciously attending to relevant aspects of incoming information, mentally organising the information into a coherent cognitive representation and integrating it with relevant existing knowledge activated from long-term memory.⁷⁴

Attending to the speech signal, pulling out the relevant content, organising and integrating it – carrying out such information processing via the filter of foreign-accented speech increases the cognitive workload (see Roussel & Tricot, 2017; Roussel et al., 2017⁷⁵). This concurs with cognitive psychology research into cognitive load in dual-task conditions, such as solving a problem and simultaneously constructing schemas; unless one task is already highly automatised, the two compete for the limited resources of working memory.

Research has not shown that learning is impossible in such a condition, nor that it is always more difficult or easier, nor even that certain features in FAS have greater or lesser degrees of impact (e.g., non-standard syntax, non-native prosody). However, research has shown two things. First, the effects of speaker variability on EFL learners depend partially on learners’ proficiency level. For

⁷⁰ <http://andre.tricot.pagesperso-orange.fr/> and <https://scholar.google.fr/citations?user=Z4WkRZIAAAA&hl=fr>

⁷¹ This is arguably due, in large part, to his impressive communication skills and enthusiastic participation in workshops for schoolteachers, in connection with his posts since 1997 at different teacher training institutes in France.

⁷² As defined on the web site of the American Psychological Association: <https://dictionary.apa.org/cognitive-load>.

⁷³ Sweller J. (1988). Cognitive load during problem solving: effects on learning.

Sweller J. (1994). Cognitive load theory, learning difficulty, and instructional design.

Sweller J., van Merriënboer J. J., Paas F. G. (1998). Cognitive architecture and instructional design.

⁷⁴ <https://dictionary.apa.org/learning>.

⁷⁵ The latter involved French Law students reading and learning legal content in German or English.

example, Gao et al. (2013) found that proficient English learners learn well despite encountering numerous accents (the multiple-speaker condition), whereas less-proficient learners benefit from dealing with only one accent (the single-speaker condition). These results confirm those of Roussel et al. (2017). Second, even though accent can impede linguistic processing, if a listener gains experience with it, they can rapidly adapt (Cristia et al., 2012; Bradlow & Pisoni, 1999; Bent & Bradlow, 2003). As Cristia et al. (2012) explain:

Accented speech initially perturbs word recognition and/or sentence processing in terms of accuracy (e.g., Gass & Varonis, 1984) and speed of processing (e.g., Floccia et al., 2006). [...] A lifelong exposure to a variety of accents shapes perceptual abilities so that listeners are able to process each variant equally rapidly (e.g., Sumner & Samuel, 2009), suggesting certain flexibility of the representations or the way the signal is mapped onto them. (4)

The format of adaptation is still debated (Cristia et al., 2012, 2), but whether it occurs at a prelexical level or involves lexical representations being modified, pedagogical interventions can be imagined upstream, to trigger/spur listener adaptation to, for example, English spoken by a Korean, Malian or Brazilian before listeners interact with the actual speakers.

Crucially, what is intriguing about recent studies of FAS coming out of neurosciences and psycholinguistics, is an increased recognition not only of both speaker- and listener-related factors, but also of “the relevance of the ambient linguistic environment for studies of speech processing” (Holt et al., 2018, 1):

By conducting the current study in a linguistic environment where foreign-accentedness is widespread, we also observed a different pattern of results to previous studies conducted in locations where foreign-accentedness was less common. [...]

Similarly to Holt et al.’s study, the listeners in Grey and van Hell (2017) were monolingual speakers of English – in Pennsylvania instead of Australia. When Grey and van Hell summarised divergent findings from four studies using ERPs to test semantic processing, they also emphasised the importance of two listener characteristics:

experience of being a non-native speaker of a foreign language (i.e., being bi-/multilingual or monolingual) and also in their extent of experience listening to foreign-accented speech. Listener experience with foreign-accented speech can affect the degree to which listeners adapt to foreign-accented input. (2017, 95)

Their conclusions also resemble those of Holt et al. (2018), demonstrating:

that the neural underpinnings of real-time sentence comprehension are influenced by foreign-accented speaker identity, that the effects vary for semantic versus grammatical processing, and for monolingual listeners who can classify the identity of the foreign-accented speaker versus those who cannot classify this identity. (2017, 106)

Interestingly, Hanulíková et al. (2012) use the term “strategy”, to refer to how listeners “allocate processing resources away from incorrect syntax in L2 speech”, by “relaxing their sensitivity to grammatical errors” (879). Their interpretation could be understood as revealing a sort of ‘syntactic tolerance’, echoing Saito et al.’s (2019) study of L2 listeners’ understanding of FAS. They classified as “strict” L2 listeners those who focused more on phonological accuracy or nativeness, whereas “lenient” listeners tuned into a variety of lexico-grammatical features to rate FAS:

... comprehensibility-oriented L2 listeners may in turn have been more willing to accommodate particular varieties of accented speech) [...], and strive to robustly develop their L2

comprehension skills by making the most of opportunities to interact with L1 and L2 interlocutors alike (see Leow, 2000 for the roles of awareness in general L2 learning). This latter interpretation stems from the finding that lenient listeners reported using L2 English very frequently in business and school settings with talker from multiple language backgrounds – a key condition for successful perpetual adaptation (Sidas, Alexander & Nygaard, 2009). (15)

These studies indicate that listeners can learn to consciously adjust their reaction to foreign-accented speech, to focus their resources on understanding the meaning – instead of focussing on errors or unexpected productions. Hanulíková et al. call it “an amazing human achievement” (2012, 885), the way people manage to understand each other despite tremendous variation in the speech signal, and emphasise that

People are rapid in adapting to new situations and new speakers and are able to reduce interference effects following conflicts. Given that cognitive control is dynamic, monitoring of conflicts leads to behavioral adjustments. Listeners can effectively use a foreign accent as a cue for non-nativeness and adjust their probability model to make the communication a successful enterprise. (ibid.)

Bent and Holt (2017) illustrate how this dynamic monitoring works, in their diagram of how speech signals might be represented in listeners’ cognitive systems (Figure 3):

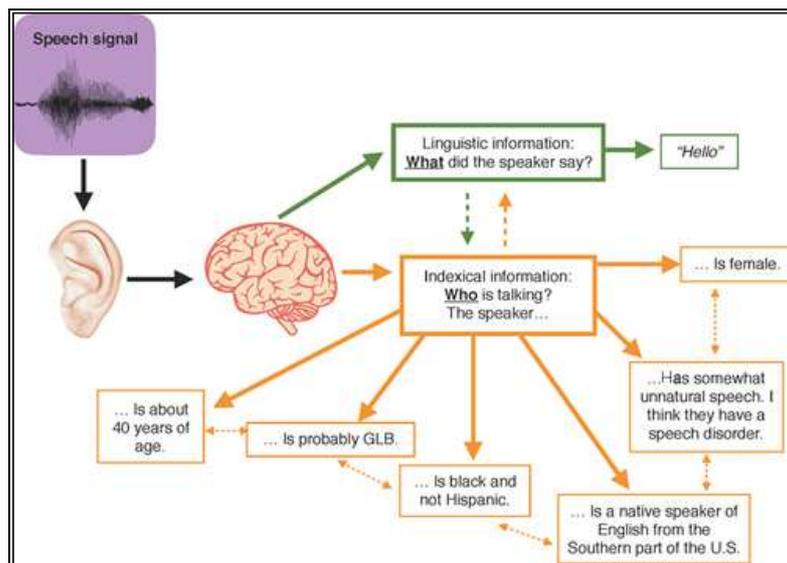


Figure 3: Representation of dynamic monitoring of speech signals (Bent & Holt, 2017)

They explain how, in reaction to the speech signal,

... listeners simultaneously extract linguistic information (top, darker) with generally high accuracy, and social-indexical information about the speaker (bottom, lighter) with varying accuracy. Linguistic and social-indexical information (dashed arrows) interact during speech perception. (1)

If spoken language instruction were based upon this representation of speech processing, the goal would be comfortable processing of the speech signal (and instruction would focus on training listeners’ ears as well as speakers’ production). Such processing ease constitutes processing fluency in social psychology, to designate how speech stimuli are judged as a function of the cognitive load involved in their processing (e.g., Oppenheimer, 2008). For example, longer processing time is known to correlate with lower comprehensibility assessments (see Ludwig & Mora, 2017). In short, the effort involved in intensive cognitive processing of the speech signal can lead to less favourable judgements of the speaker.

It is easy to see why, in English Medium Instruction, this would be an important area for research: teachers want to be taken seriously as field experts, and students want to access the propositional content as easily as possible, via that teacher's spoken language. Moreover, teachers also want to be able to easily understand students' questions, so that students feel respected, too.

From the very start of cognitive processing, listeners are affected by speaker identity, because indexical information is not processed separately. Recent neuroscience research (using neural correlates such as brain scans, EEGs and the scalp-recorded electrical activity of event-related potentials⁷⁶), has repeatedly confirmed what van Berkum had already argued in 2008:

The general idea is that listeners initially strip away the acoustic variability associated with different speakers ("talker normalization") to arrive at a standardized input representation from which they can subsequently recover the linguistic message. However, rather than rapidly disregarding voice-based cues to who the speaker is, listeners, in fact, use these cues in the earliest stages of speech signal processing (for reviews, see Johnson, 2005; Nygaard, 2005; Thomas, 2002). (581)

Here van Berkum cites a telling example from Rubin's classic study:

[...] when standard American English speech is accompanied by a picture of an Asian speaker, American listeners have a harder time making sense of the input (Rubin 1992). (ibid.)

This brief treatment of the cognitive aspects of speech processing has brought my text full circle, back to the influence of the social environment on how FAS is processed. To quote Van Berkum et al. (2008), "... to the brain of the language user, there is no context-free meaning. [...] It immediately cares about other people." (589). The next sub-section addresses such social and societal aspects, which is also closer to the foci of much of my past and current research.

To conclude, sub-section 3.4.a. started by looking at an on-line tool, the *English Accent Coach*, which is based on findings from L2 speech processing research in general and specifically research on the technique of High Variability Phonetic Training (HVPT), which I argue should be a part of listener training for English Medium Instruction in European universities. Then, a brief comparison of two well-known models of speech processing (SLM and PAM) highlighted how speaker-, listener-, and environment-related factors influence cognition. Cognition is a dynamic process and people can exert some conscious control over it. Additionally, perceptual training can help to reduce cognitive load for listeners and increase their processing fluency, and it can also influence their spoken production as well. To conclude, cognitive processing does not occur in a social vacuum. Speaker identity, particularly, is known to impact the very start of processing.

3.4.b. Social aspects

As one of the most salient social markers (Giles, 1979), the language which comes out of our mouths is a powerful vector for discrimination and bias. It is obvious that everyone has an accent in relation to someone else, but the danger lies in the subconscious nature of language-based discrimination, which is widespread in the form of latent perceptual stereotypes and prejudice. Blanchet coined the term *glottophobia* for such discrimination (2016) and it is a well-documented phenomenon, even though most people would overtly subscribe to tolerance.

Despite teaching the pronunciation of a foreign language (and having to navigate between – at least – two standard varieties in my pedagogical choices), it was only once I began training fellow

⁷⁶ See Holt, R., Kung, C., & Demuth, K. (2018). Listener characteristics modulate the semantic processing of native vs. foreign-accented speech. *PLoS one*, 13(12), e0207452. <https://doi.org/10.1371/journal.pone.0207452>

researchers to speak at international conferences that I began to situate accentedness within a broader social context. This resulted in my attempts to better understand the society in which I live and work in (France), especially in relation to perceptions of English and perceptions of language norms. For example, I did survey research into learner and teacher perceptions and practices, most notably the English Pronunciation Teaching in Europe Survey (see AH2015_03, _05), but also various unpublished surveys of my semester intakes, including English majors, future English teachers and non-language majors. In general, what I found confirms Blanchet's observation (2016) that the native-speaker norm exerts a powerful influence on both speakers and listeners, within and beyond language classrooms.⁷⁷ Compelling examples of how students see their foreign language teachers in France can be found in Derivry-Plard's longitudinal study (in Pawlak, 2008, 289). She compared data from two surveys at French universities, one from 1997 of French students doing English classes as part of their degree program, and another from 2007 of international students attending French as a Foreign Language (FLE) classes as undergraduates.

Comments from two students are representative of an acute awareness of accent and, more importantly, of how "nativeness" is favoured:

'much better for pronunciation which is perfect', 'have a better pronunciation', 'teach students to speak without an accent', 'owns a good accent to better understand interaction and sounds we do not have', 'accents of spoken language are difficult', 'pronunciation is difficult, so it's better with a native speaker', 'has a better knowledge of pronunciation', 'for listening and for getting a good understanding', 'to pick up the good accent', 'it's good for pronunciation', 'for phonetic subtleties', 'for speaking with native speakers' (S-2007).

The second set of comments has a more explicitly normative tone, e.g., *right, pure, authentic, genuine, good, better, perfect, more natural, correct*:

'one acquires a better accent', 'has the English accent', 'has the right accent', 'perfect accent', 'good accent', 'has a better accent', 'for being bathed in a genuine accent', 'has the right accent of the country', 'has a pure accent', 'an authentic accent', 'has no accent, which allows to hear genuine English', 'has a perfect accent', 'has a better accent', 'has the accent', 'a better pronunciation and accent', 'his/her accent often sounds more natural, so it's better', 'a correct accent' (S-1997).

For Derivry-Plard, comments about how "*pronunciation is difficult, so it's better with a native speaker*" expose how language accuracy and teaching efficiency are confused:

Although there is an obvious link between language accuracy and teaching efficiency there is no equivalence between these two dimensions in language teaching. Some strong social schema is in play mystifying the *speaker* and the *teacher*, the *native speaker* and the *native teacher*. (ibid. 285)

Such social schema would explain why accent appeared repeatedly as a key indicator⁷⁸ of the native speaker teachers' greater linguistic competence (2008, 288).

Most individuals at least subconsciously conceive of native models as ideals to strive toward when they learn a new language – an ideal which can change or be changed. That is fortunate, as research has shown that few adults acquire native or Nativelike pronunciation in languages beyond their mother tongue (see Flege, Munro & MacKay, 1995 or Scovel, 2000). Most foreign language teachers have

⁷⁷ This issue is examined in more detail in the Section 4, Identity, in relation to identity issues for both teachers and learners.

⁷⁸ The other main criterion which determined native speaker teachers' greater perceived linguistic competence was the combination of grammar and vocabulary.

invested tremendous amounts of time and energy at becoming extremely proficient in the target language, including its pronunciation, yet their success (as non-native speakers of the target language) is still usually measured against the native speaker norm. In English Medium Instruction, teachers are experts in their field who share their knowledge through the filter of their English, be it native or non. This has an influence on learning, because accented speech can lead listeners to make impressionistic yet long-lasting judgments about speakers. For example, students complain in the hallway after a class taught by a lecturer whose speech they found difficult to understand, or odd and different; sometimes the tone is humorous but often it is vicious. These judgments impact upon learners' beliefs about how to "approach their learning, the strategies they employ, their motivation, their attitudes, and their success" (Oxford & Lee, in Griffiths, 2008, 308). Furthermore, they may attribute their own success or failure to a lecturer's accentedness or they may decide to drop that class (see Rubin & Smith, 1990; Lindemann & Clower, 2020). To conclude, based on accented speech, not only can unfounded judgements be made about a speaker and their level of competence, listener-learners can also form unwarranted beliefs which then influence their behaviour.

At the root of such behaviour are social evaluations. In their meta-analysis of four decades of social psychology research on foreign-accented speech, Gluszek and Dovidio showed that more negative perceptions are attributed to speakers with non-native accents (2010, 217), and the stronger the accent the more negative the evaluations. Other research has shown that both explicit and implicit attitudes are activated in Implicit Association Tests (e.g., Roessel et al., 2020) and that speakers with an accent received lower status ratings (Miller & Hewgill, 1964; Brennan & Brennan, 1981; Bresnahan et al., 2002; Lindemann, 2003; Lev-Ari & Keysar, 2010; Beinhoff, 2013). Similar negative bias has also been found in response to lecture-style speech (Rubin & Smith, 1990; Kavas & Kavas, 2008), both in ESL contexts, exploring the reactions of native-American English undergraduates to the academic discourse of university professors who were non-native speakers of English. Rubin and Smith explained some of their results by the listeners' experience of foreign-accented speech, beyond their "limited international exposure" as revealed through questionnaire data (1990, 349):

... the great majority had never even travelled outside of the United States. And while the State of Georgia is hosting increasing international immigration and sojourning, informal contact with internationals remains more the exception than the norm for the population from which this sample was drawn. [...]. However, correlational results show once again that those with the most exposure to NNSTAs⁷⁹ were least likely to believe that being taught by an NNSTA hurt their grades. It appears that the more often students had sat in classes with NNSTAs the more satisfied they were with their instruction and the more skilled they became at listening to accented speech. (1990, 349-350)

Twelve years later, using similar student-listeners, Bresnahan et al. (2002) link listener expectations and perceptions with intelligibility:

... perception of competence is enhanced when foreign accent is intelligible because students often expect the worst from foreign teaching assistants and when they find intelligibility they are more attracted to the foreign teaching assistant than they might otherwise be. [...] When intelligibility is high, undergraduates perceive foreign teaching assistants (and foreign friends) as attractive and competent approaching the ratings that they give to indigenous teaching assistants. When intelligibility is low, negative attitudinal and affective responses appear to be primed. (2002, 181-82)

⁷⁹ The authors clarify that they prefer this acronym (non-native English speaking teaching assistants) over the more common ITA (international teaching assistant).

Such findings reiterate how a strong social and affective influence exists to perceived accent in academic environments, and how social.

The potential for subconscious reactions to FAS is also important in relation to prioritising pronunciation instruction. For example, people are more able – and likely – to seize upon segmentals when asked to identify a speaker’s accent. This would seem to provide a social justification for teaching segmentals in general, as they are salient markers of nativeness or accentedness (two sides of the same coin and correlated differently with comprehensibility and intelligibility). Sometimes native English speakers try to mimic a non-segmental trait (e.g., the perceived monotony of Finnish- or Czech-accented English, or the perceived machine-gun rhythm and speech rate of Spanish-accented English), but most reactions to prosody are subconscious and so, they are rarely explicitly mentioned.⁸⁰ Prosody nonetheless influences how speakers are seen. For example, Berckovcoca et al. (2016) found that rhythmic cues led to lower ratings for FAS speakers, even when listeners did not understand the speaker’s language. They asked twenty Czech university students of Spanish and twenty Czech students unfamiliar with Spanish to rate Spanish speakers. To control the variables, the stimuli were created by modifying only the rhythmic patterns of Spanish speakers; the modified stimuli were rated less favourably.

This raises the issue of the methodologies and techniques I will need in my future work, to address my research questions related to FAS. First, I will need to increase my knowledge and skills in acoustic phonetics, so that I can collaborate more equally and constructively with my acoustic phonetician co-authors. Second, it would be useful to be able to develop and use valid Implicit Association Tests (IATs), especially as they are a less explicit measure than self-report surveys of comprehensibility or speaker traits. IATs could “reveal relationships between the neural correlates of foreign-accented speech comprehension and listeners’ attitudes towards foreign-accented speech” (Grey & van Hell 2017, 106). While I have not yet used IATs,⁸¹ we did limit response times in a Praat-based perception test [AH2018], which confirmed the force of the native-speaker model in judgements of competence. Czech, French and American students listened to short extracts⁸² of speakers of English who had a Czech, French or American accent. Analysis of their ratings showed a statistically very significant preference for native speakers over FAS speakers, judging them to be more competent. Furthermore, the Czech listeners showed a weak ingroup preference and were less critical of English spoken with a French accent, while the French students showed a strong outgroup preference, giving very low ratings to English spoken with a marked French accent. To use Milroy’s terms, based on these results France would be a standard language culture, where language attitudes are shaped by the ideology of a standard (necessarily a native standard) and the corresponding ideas of accuracy or correctness and prestige (2001).⁸³

These studies confirm that FAS powerfully influences listeners’ speech processing – even if on a subconscious level and even when only a single, prosodic feature is modified. Moreover, they confirm that FAS can only exert this influence by existing in a social context where a norm dictates what is “same” and what is “other”, what is acceptable and what is not.

⁸⁰ Research diverges on the relative weight of prosody in listener judgements of nativeness, comprehensibility or intelligibility; this will be addressed in more detail in Part III, *Implications for Training Speakers and Listeners*.

⁸¹ Due to the potential impact of subconscious bias, using other forms of reaction time data is thus clearly justified, as for example in Munro & Derwing (1995a), Derwing and Munro (1997), Trofimovich (2008).

⁸² The extracts for the two-stage perception test were roughly 15-words (for Stage 1) or 40-words long (for Stage 2).

⁸³ Even prestige is context dependent, so that a francophone Swiss speaker in a university student work group may be rated positively as “intelligent” and “respected”, regardless of how similar their speech is to a standard English – or French. The same accent in a shop may be ranked negatively as “foreign” or “incomprehensible”.

To conclude, L2 speech perception is coloured by the attitudinal and affective meanings which listeners associate with the speech signal. Yet again, listeners are pinpointed as crucial to the success of spoken exchanges. This is true despite the fact that it is *speakers* who are the target audience for academic training courses (“speaking at international conferences” or “teaching in English”) and the target clients of (commercial) “accent reduction” programmes. Implicit measures of listener reactions to speech may provide more reliable data than self-reports about how easy it is to understand speakers, and may tap into other important factors: ... listeners’ fatigue or annoyance with particular accents may unduly influence how difficult they perceive the task to be (Kang, 2018, 24). Listeners experience fatigue in relation to cognitive constraints, but annoyance is felt when something irritates, bothers or inconveniences us – in relation to what we feel should (or should not) be the case. This circles back to the power of the norm and raises the issue of the acceptability of various accents.

3.4.c. Acceptability

A socially anchored description of reactions to foreign accented speech is essential in connecting L2 speech with identity issues. Therefore, here the social construct of acceptability is tackled separately because, in relation to foreign accented speech, it is not as well-known as the constructs accentedness, comprehensibility and intelligibility. My broader argument is that acceptability needs to be taken into account when designing interventions to train listeners and speakers to cope more easily with accented speech on internationalised university campuses.

Acceptability judgements “form a substantial portion of the empirical foundation of nearly every area of linguistics (e.g., phonology, morphology, syntax, and semantics) and nearly every type of linguistic theory.” (Sprouse, 2013). The following comparison of Google occurrences⁸⁴ shows, however, that *acceptability* has not tended to be as frequently used in combination with the words *phonology*, *pronunciation* or *accent* (Table 13):

Number of occurrences per decade	1970-79	1980-89	1990-99	2000-09	2010-19
<i>acceptability</i> +					
+ <i>pragmatics</i>	1,070	1,900	8,710	48,500	218,000
+ <i>morphology</i>	746	1,530	5,980	36,500	187,000
+ <i>syntax</i>	495	879	3,430	21,500	113,000
+ <i>semantics</i>	702	799	3,940	22,100	77,200
+ <i>phonology</i>	225	337	1,600	10,400	41,800
+ <i>pronunciation</i>	231	317	1,320	7,170	37,300
+ <i>accent</i>	688	728	2,260	11,800	58,400

Table 13: Occurrences of acceptability + seven other terms, per decade, on Google

Table 13 also shows that while there has been an explosion of interest since 2000, *pronunciation* and *phonology* nonetheless still occur much less frequently with *acceptability* than with the other words.⁸⁵ Occurrences implying an interest in accented speech (*acceptability* + *accent*) follow the trend of other terms and skyrocket from 2000-19, multiplying almost five times, to 58,400 hits.

Syntactic acceptability judgments are the focus of Sprouse’s entry for the term ‘acceptability judgments’ in *Oxford Bibliographies*,⁸⁶ where he defines them as

⁸⁴ Queries from June 26, 2020. The table starts at 1970 because 0 occurrences were found for any of the queries from 1960-69.

⁸⁵ I assume these relations and the overall trend would hold if I eliminated irrelevant noise in the query results.

⁸⁶ <https://www.oxfordbibliographies.com/page/about> : “*Oxford Bibliographies* provides faculty and students alike with a seamless pathway to the most accurate and reliable resources for a variety of academic

... consciously reported perceptions of acceptability that arise when native speakers attempt to comprehend a (spoken or written) utterance, whether it be a syllable, (non)word, or sentence, and are asked to answer a question such as ‘How natural/acceptable/grammatical is this utterance?’ (ibid)

Acceptability for native speaker “judges” would be synonymous with naturalness, betraying an underlying nativism. This ideological colouring reappears when Sprouse lists four assumptions of acceptability judgment tasks,

(1) acceptability is a property of utterances, (2) the grammatical status of the utterance strongly (but not necessarily uniquely) influences the acceptability of the utterance, (3) native speakers can consciously perceive the acceptability of utterances, and (4) native speakers can consciously report their perceptions of acceptability. (ibid.)

The nativist emphasis is not inevitable in relation to acceptability and several chapters in Greenbaum’s 1977 *Acceptability in Language* explicitly address this issue. For example, in his chapter, Bickerton states that, in the early stages of a developing pidgin there are no native speakers, simply interlocutors who draw on the grammar of their L1; forms are acceptable and endure if they are understood by others. Native speaker intuitions about grammaticality or acceptability have no place here; native speaker competence is irrelevant. Afolayan’s chapter about Nigeria asks whether non-native speakers can make valid acceptability judgments. The example of bilinguals is given, where their competence and intuitions can approach that of native speakers. Already in the introduction Greenbaum casts doubt upon the assumed validity and reliability of native speaker intuitions as linguistic data, because “acceptability intuitions and language behaviour do not necessarily coincide” (5). One example would be the highly educated, fluent native speakers of Hebrew who apologise for their mistakes in Hebrew, described in Rabin’s chapter on linguistic insecurity and normativism in Israel. Their hyperawareness of the learned standard affects their judgments of what is acceptable. Other chapters look at social class and gender, two other dimensions of variation which influence acceptability judgments.

Another example of awareness, that a nativist perspective is insufficient for describing reality, is Ludwig’s 1982 review of the then-available 12 studies where native speaker judged L2 communication efforts. The foreign languages being learned were French, German, Russian, Spanish and English and the learners had a range of L1s. Ludwig defines acceptability as “the degree to which a given L2 violates language norms”:

As with irritation, judgments on acceptability may be influenced by factors other than personality, such as age, education, and the norms of the speech community as a whole. Considerable work needs to be done in this area. (277)

Ludwig goes on to say that “Clearly, even with a relatively homogeneous speech community, considerable variation exists as to what constitutes acceptability – or what constitutes an error.” (1982, 278). Speech community norms exert a key influence on judgments of acceptability, but what if variation is the norm? And what if variation is present not only in the spoken language forms, but also in the listeners and in the possible combinations of listener-speakers? After all, “An utterance is acceptable in a conversation only if it is a speech act which is also appropriate relative to other (speech) acts of the conversation of interaction” (van Dijk, in Greenbaum, 1977, 49). However, what might hold true in the early development of a pidgin is probably not true of interactions among five foreign students working on a project together, for their English class at a French university; they are drawing on a shared

topics. Written and reviewed by academic experts, every article in our database is an authoritative guide to the current scholarship, containing original commentary and annotations.”

language, English, but from different backgrounds and with different experiences and attitudes. To quote Thomson (2018b): “in a perfect world, [...] if speech is intelligible, it should be acceptable. In fact, that is not the case.” (25).

Since Ludwig’s 1982 review article, acceptability in relation to pronunciation has attracted insufficient attention, reflected in Thomson’s (2018b) statement 36 years later that the field of applied linguistics needs to address

the reality of acceptability as a dimension of pronunciation. [...] While we have rightly idealized intelligibility and to a lesser extent comprehensibility as the goals of instruction, we must also accept that we cannot control the reactions of all listeners, and that for some L2 English learners, in some contexts, a demand for acceptability may trump our idealized standards. (26)

Fortunately, recent FAS research has been increasingly interested in a broader, plural and dynamic conceptualisation of listener “background” or “experience with the language”. Listener-raters develop their “ears” in different social environments, impacting their attitudes and representations of language(s). For example, raters who have been trained to examine for a specific exam or certification will focus (hopefully) on those trained criteria. Teachers tend to listen more for accuracy than native speakers who are not language teachers (Ludwig, 1982), an unsurprising sort of occupational hazard. Similarly, yet more surprisingly, research in bilingual cognition now has enough evidence to show that experience- and context-related conditions result in adaptations in attentional function in bilinguals and multilinguals (DeLuca et al., 2019). If the interactional context impacts on cognitive functions, then even the term bilingualism should be a plural: bilingualisms.⁸⁷ Having demonstrated neuroanatomical adaptations caused by bilingual language exposure and use, DeLuca et al. (2019) insist that “experience-based factors should be accounted for in all future studies investigating the effects of bilingualism on the brain and cognition” (7565). Influences on the “bilingual experience”, according to Bak, include the linguistic environment, the social environment (conventions, prestige and ideology), and individual choice (identity and value judgments, language as mental exercise) (2020).

A useful parallel can be drawn concerning this new focus on environment(s) in the field of bilingual cognition and the expanded interest in the role of listeners, in L2 pronunciation research. Pronunciation errors which do not significantly impact intelligibility can still trigger negative reactions for a host of reasons, but these reasons lie in the listener – their background, personality, experience with accents. For example, I am still surprised to hear French public speakers (radio and TV personalities) who “lisp” in French. In the English-speaking world this is considered a speech impediment, children are usually sent to the speech therapist for it and adult lisps are often stigmatised.⁸⁸ And yet these highly educated French speakers are in high-profile, public communication posts where their grammar and lexis are accurate, natural, varied and sophisticated, so in French society the feature obviously is either not salient or is not stigmatised. While I still notice lisping in French, it no longer triggers a visceral reaction in me, but it took over a decade of experiencing French in France for this change to occur. Research confirms that familiarity with an accent is a factor in acceptability judgments (Fuse, Navichkova & Alloggio 2018; Huang, Alegre & Eisenberg 2016; Kang, Thomson & Moran 2018), and more generally the listener’s affective experience of accented speech is linked to acceptability:

⁸⁷ See Ooi, S. H., Goh, W. D., Sorace, A., & Bak, T. H. (2018). From bilingualism to bilingualisms: Bilingual experience in Edinburgh and Singapore affects attentional control differently. *Bilingualism: Language and Cognition*, 21(4), 867–879. See also DeLuca, V., Rothman, J., Bialystok, E., & Pliatsikas, C. (2019). Redefining bilingualism as a spectrum of experiences that differentially affects brain structure and function. *Proceedings of the National Academy of Sciences*, 116(15), 7565–7574.

⁸⁸ See such speech therapist sites as: <https://torontospeechtherapy.com/blog/2018/adult-vs-child-lispand> and <https://thevoicescience.com/fix-your-lisp/>.

Another important aspect of foreign accent relevant to successful communication is its acceptability by listeners, i.e., the degree of annoyance (irritation) it triggers in them; [...] acceptability seems to be more subjective and listener dependent than intelligibility. (Szpyra-Kosłowska, 2015, 76)

Only a part of that irritation is caused by not understanding a speaker.⁸⁹ So while intelligibility is a crucial objective of spoken interactions, comprehensibility (i.e., perceived ease of processing) and acceptability are distinct constructs which must also somehow be addressed in spoken language instruction.

Language norms – as well as social norms – are exposed in acceptability judgments, emphasizing “the norms associated with standard forms, and by extension, the norms associated with social power” (Levis, 2006, 253). The educational system is typically where language norms are transmitted to children, resulting in a higher level of education most often being associated with greater social power. A clear example of this is Nigeria, where an endonormative variety is emerging and educational level reflects speakers’ social prestige (Soneye & Alooya, 2015). In their study of onset consonant clusters in Nigerian English, Soneye and Alooya describe the co-existence of several varieties of English:⁹⁰

a non-standard variety, spoken by primary school leavers, the standard variety spoken by university graduates, and the sophisticated variety, which is spoken by trained linguists, professional speakers and phoneticians (Udofot 1997, 2003). (2015, 117)

One would typically expect the ‘standard’ variety to be (by definition) socially acceptable. It is nationally intelligible but shows some L1 transfer. In contrast, the ‘sophisticated’ variety would be socially acceptable, *internationally* intelligible and show less L1 transfer.

This interplay between accent and acceptability is being addressed more and more frequently by researchers and language teachers. For example, recently it was the focus of a workshop at Kiel University:⁹¹

⁸⁹ See van den Doel (2006), “How friendly are the natives?” and Fayer and Krasinski (1987) for the lower tolerance of native Spanish speakers when rating Puerto Rican-accented English.

⁹⁰ They provide a useful overview table showing the complexity of the language situation in contemporary Nigeria (119).

⁹¹<https://www.isfas.uni-kiel.de/da/skandinaviske-studier/kalender/nordic-research-on-accent-acceptability-and-acquisition-nordac3-workshop-at-kiel-university-21201322-march-2019>

Nordic Research on Accent, Acceptability and Acquisition (NordAc³)

Workshop at Kiel University, 21–22 March 2019 Organizers: Lisa Tulaja, Steffen Höder

NordAc³ is organized as the concluding workshop of the project Danish as a Neighbour Language: Pronunciation Competence in Danish in German Schools (Kiel University, 2015–2018).

Recent years have seen an increasing interest in studies on L2 pronunciation. This includes studies that focus on the relationship between L2 pronunciation and sociolinguistic aspects such as the social and communicative acceptability of L2 speakers (van den Doel 2006; Pilott 2016; Thomson 2018). Also, the importance of teaching L2 pronunciation and teachers' skills in this context are increasingly emphasized (Derwing et al. 2014; Thomson & Derwing 2015). While the majority of studies address widely used languages, most notably English, NordAc³ approaches this topic with a regional focus on research from the Nordic countries or on the Nordic languages. The two-day workshop brings together scholars working on sociolinguistic, phonetic, and acquisitional aspects of L2 pronunciation, with particular emphasis on the discussion of

1. current empirical findings:
 - Which perspectives on L2 pronunciation, including the use of listener ratings, are being discussed in current studies?
 - Which fundamental implications for teaching purposes can be drawn from recent L2 pronunciation studies?
2. methodological aspects:
 - How can different dimensions of pronunciation (especially acceptability) be defined and measured?
 - How can the mutual influence of different dimensions be measured, e.g., the influence of accent on acceptability?
3. the relevance of research on L2 pronunciation for teaching:
 - What do teachers need to know? What should we teach teachers?
 - Which aspects of L2 pronunciation in general and which language-specific phenomena in particular should be part of teacher education?

It is encouraging to see such an explicit connection being encouraged between empirical work and pronunciation instruction. But it is even more inspiring that the project behind the workshop concentrates on Danish in German schools. The work is being done in a European context but not on L2 English and this is important because L2 pronunciation research needs to take place in a variety of contexts, not just monolingual contexts. Sorace goes further, arguing that linguistic research in general has been conducted overwhelmingly in monolingual contexts and that this has resulted in, for example, bilingualism being seen through the lens of monolinguals, which is why we compare natives with non-natives (2020). Sorace made this comment in the context of a broader argument; if we want to better understand the interaction between neurological and behavioural patterns in bilingualism, we need to redefine the terms of comparison. She cites the following modulating factors in bilingualism – exposure to variation, attitudes, literacy, degree of code-switching and language distance – and argues that they be read as continuums not as categories. I agree that is essential to think rather in terms of comparisons across a continuum, about gradients rather than dichotomies, and yet the native-non-native dichotomy is a useful starting point especially when training language teachers. However, this broader shift in thinking is essential if L2 pronunciation research is truly about languages, not just one language (English).

An important factor in shifting the mindset is to gather more evidence from different contexts, combinations of languages, and age groups.⁹² This is fortunately the case as shown by a short list of studies from the last decade with less common combinations of languages (Table 14):

Sewell, A. J. (2016). <i>English pronunciation models in a globalized world: Accent, acceptability and Hong Kong English</i> . Routledge.	L1 Hong Kong Chinese // L2 Hong Kong English
Osatananda, V., & Salarat, P. (2020). The tolerance of English instructors towards the Thai-accented English and grammatical errors. <i>Indonesian Journal of Applied Linguistics</i> , 9(3), 685–694.	L1 Thai // L2 English

⁹² Research into language learning and use across the entire lifespan is finally beginning to document phenomena from later stages of life.

Gallardo del Puerto, F., García Lecumberri, M. L., & Gómez Lacabex, E. (2015). The assessment of foreign accent and its communicative effects by naïve native judges vs. experienced non-native judges: Foreign accent and its communicative effects. <i>International Journal of Applied Linguistics</i> , 25(2), 202–224.	L1 Spanish and/or Basque // L2 English
Pernille Berg Johnsson, (2019). When similar meets new: Perception and production of French L3 obstruents in Scandinavian learners of French as a foreign language. <i>L2 Pronunciation Research Symposium</i> . Jyväskylä, Finland. November 6-7, 2019.	L1 Danish, Swedish, Norwegian // L3 French
Szpyra-Kozłowska, J., & Radomski, M. (2012). The perception of English-accented Polish: A Pilot Study. <i>Research in Language</i> , 10(1), 97–109.	L1 English // L2 Polish
Radomski, M., & Szpyra-Kozłowska, J. (2014). A pilot study on Poles' attitudes to foreign-accented Polish and its users. <i>Studies in Polish Linguistics</i> , 9(2), 67–87.	L1 English (US & GB), French, German, Hungarian, Italian Spanish, Romanian, Russian, Turkish, Ukrainian // L2 Polish

Table 14: Recent studies focusing on less common combinations of languages

It is notable that Polish researchers have studied not only Polish-accented English in immigrant-receiving countries such as Britain⁹³ (e.g., Gonet & Pietron, 2004; Bryla-Cruz, 2016) but also English-accented Polish (Szpyra-Kozłowska & Radomski, 2012; Radomski & Szpyra-Kozłowska, 2014).

The study by Gallardo et al.⁹⁴ (2015) is unique because they measured “foreign accent irritation”, comparing those ratings directly with comprehensibility and accentedness ratings. They used 9-point Likert scales, which is the most common method, but other judgment data collection methods exist (e.g., forced choice) and are widely used in both psychology and linguistics.⁹⁵ While correlational analyses of static measurements have provided a great deal of useful insights, it would be even more interesting to integrate dynamic rating methods in acceptability studies, as done by Nagle et al. (2019), measuring L2 Spanish comprehensibility. Listeners used MacIntyre’s IdioDynamic Software (2012) so that they could upgrade or downgrade comprehensibility ratings throughout the listening task. Moreover, a follow-up video-stimulated recall procedure was used to question the listeners about specific points and trends in their ratings, providing fine-grained insight into which aspects of L2 speech enhanced or diminished comprehensibility. This could be an exciting avenue to explore, not only for the data that could be collected but also in terms of the impact upon listeners; the research protocol would quite probably raise their meta-phonological awareness, and discussing with the “researcher” could also modify their intercultural awareness.

This sub-section finishes by mentioning Lippi-Green’s influential book (1997), *English with an accent: Language, ideology and discrimination in the United States*, in which linguistic grammaticality and socially constructed grammaticality are presented as distinct yet connected constructs. In an L1 context social conventions evolve and, concomitantly, can lead to changes in what is considered linguistically grammatical in certain social contexts, for example current uses of positive *anymore* in the United States⁹⁶ or the deleted consonants of teenagers replying to (arguably many) parents’ questions

⁹³ This is perhaps related to the significant Polish-speaking community in Britain, since Poland joined the EU. Bias and even discrimination against L1 Polish speakers is, sadly, common in the UK; the stereotype of the hard-working Polish plumber is not entirely positive.

⁹⁴ To the best of my knowledge, they are the only research team in Europe solely focused on CLIL and pronunciation.

⁹⁵ Weskott, T., & Fanselow, G. (2011) provide an interesting comparative analysis of different methods.

⁹⁶ See the example ‘Twitter can be a professional job anymore.’ (YGBP Database 2011) from the *Yale Grammatical Diversity Project: English in North America*, showing how *anymore* is used synonymously to *nowadays*. “This Project explores syntactic diversity found in varieties of English spoken in North America. By documenting the subtle, but systematic, differences in the syntax of English varieties, it provides a crucial

with “I don’t know”. However, this “certain contexts” constraint assumes that both speakers and listeners are part of the same speech community, that they have a shared norm, i.e., an idea of what is acceptable in that context with those interlocutors. For example, as a native speaker of English I was nonetheless quite surprised to hear a dear friend – and fellow native speaker – casually state that she drives less anymore; my English had developed over decades abroad whereas hers (subjected daily to midwestern American English input) had developed in a different direction. I had to ask for clarification of her meaning. Arguably a similar level of surprise can be experienced in exchanges between native and non-native speakers (or solely non-native speakers), when they interact in shared location (a university campus), in order to carry out a common task (write a report, prepare an oral presentation) in a shared language, but they bring to that interaction their background, their experience, their familiarity, their attitudes and representations.

To conclude, the acceptability of accents necessarily leads to issues of identity, because it necessarily involves taking a stance in relation to a socially constructed norm. In other words, even if I understand the propositional value of what a person said (even though sometimes I may need to ask for clarification), do I judge that they have the right to say it, and do I judge that their production is appropriate to our exchange? The parent might express frustration with their teenage child’s ‘lazy’ speech and see it as inappropriately disrespectful. To close the *anymore* anecdote, my friend and I ended up discussing the use of positive *anymore* for a bit, and for the rest of my visit I noticed its widespread use. We enjoyed talking about this linguistic detail, but while explicit discussion of a surprising feature is one coping strategy, it cannot be the most effective or efficient one for all spoken interactions. Other strategies exist and involve preparing oneself to cope with variation in real-time.

The next Section looks at why the design of training to cope with spoken variation must take identity issues into consideration. In the same way that I cannot dictate what language variations my friend chooses to use, nor can we devote spoken language instruction solely to what speakers produce; the listener’s role cannot be neglected and nor can listeners shirk their share of responsibility for making interactions successful.

4. Identity

The objective of this Section on identity is to reframe nativeness in relation to the identity of speakers and listeners in EFL, EIL, and EMI contexts (see Aneja 2016; Yuan 2019), drawing on research into “what variation may mean to speakers and hearers”, one of the main objectives of variationist sociolinguistics according to Drummond and Schlee (2016, 50). This is essential because, applying Blommaert’s (2006) general ideas specifically to interactions with foreign accented speech, I argue that it is listeners who partially decide a speaker’s identity; regardless of the speaker’s *achieved* or *inhabited* (chosen) identity, listeners *ascribe* or *attribute* identity to the speaker, and this influences how they understand both the speaker and the spoken propositional content. Such a perspective would logically support interventions which train listeners to better cope cognitively and socially with foreign accented speech.

4.1. Framing the concept

Identity is a key construct which, although operationalised differently in sociology, applied linguistics, and SLA, is functional and productive in each field, with some overlap. The sociologist Richard Jenkins defines it as

source of data for the development of theories of human linguistic knowledge.” (<https://ygdg.yale.edu/phenomena/positive-anymore>)

... the human capacity – rooted in language – to know ‘who’s who’ (and hence ‘what’s what’). This involves knowing who we are, knowing who others are, them knowing who we are, us knowing who they think we are, and so on: a multi-dimensional classification or mapping of the human world and our places in it, as individuals and as members of collectivities (cf. Ashton et al., 2004). It is a process – *identification* – not a ‘thing’. It is not something that one can *have*, or not; it is something that one *does*. (1996/2008, 5)

This agentic, process-oriented, multidimensional mapping of ourselves in a social space is also reflected in a plea by Norton-Peirce, one of the most frequently cited identity researchers in applied linguistics, for “a comprehensive theory of social identity that integrates the language learner and the language learning context”(1995, 12). She argued that there was still too much disagreement about where to draw the line between an individual language learner and the social world, and about how these interact. In the past 25 years, this has started to change, especially since the publication in 2016 of a position paper in the *Modern Language Journal*, called *A transdisciplinary framework for SLA in a multilingual world*. This was written by a group of 12 eminent SLA researchers, who published as “Douglas Fir Group”.⁹⁷ They were brought together by Tarone,⁹⁸ to discuss a set of basic principles which would strengthen their argument in favour of an SLA model that integrates social context.⁹⁹ While all ten of their principles are valid and productive, in this section I will address n°5, 7, 9 and 10 in relation to L2 English pronunciation teaching and learning in France:

- 1) Language competencies are complex, dynamic and holistic (i.e., not “Competence”)
- 2) Language learning is semiotic learning (includes collocations, turn-taking, non-verbal)
- 3) Language learning is situational and attentionally & socially gated (e.g., sociolinguistics and pragmatics)
- 4) Language learning is multimodal, embodied and mediated
- 5) *Variability and change are at the heart of language learning*
- 6) Literacy and instruction mediate language learning
- 7) *Language learning is identity work*
- 8) Agency and transformative power are means and goals for language learning
- 9) *Ideologies permeate all levels*
- 10) *Emotion and affect matter at all levels*

Identity is also the second key word in the title of this document, but none of my research to date has explicitly explored identity, with one near-miss from the EPTiES survey project (AH2013_02). EPTiES was an unfunded, Europe-wide research initiative which I coordinated from 2009-13.¹⁰⁰ I wanted to see how teachers across Europe were teaching English pronunciation and what they thought about their training, so I brought together partners from 10 different countries: Finland, France, Germany, Ireland, Macedonia, Netherlands, Poland, Spain, Sweden and Switzerland. From our jointly created online survey, we amassed almost 900 responses, which we then analysed together and published on – together and separately (see AH2013_01, _02, _03; 2012_01). Each partner was responsible for gathering and analysing the results for their country. We had intended to do follow-up interviews, but that step was abandoned due to overlapping life events amongst the project members. This failure is one

⁹⁷ Named for the room in which they convened their first meeting as a group.

⁹⁸ <https://carla.umn.edu/about/profiles/Tarone.html>

⁹⁹ This background was provided in a semi-autobiographical talk by Tarone (2019), *The Role of Social Context in Second Language Acquisition and Use: The Douglas Fir Group*, available at: <https://www.youtube.com/watch?v=oLmviGAppfU>

¹⁰⁰ Despite a failure to obtain funding, EPTiES remains my baptism of fire in how to manage a large, interdisciplinary, international team for a multi-year project. I continue to collaborate with those EPTiES partners who are still alive and/or not retired.

of my greatest regrets in research, as the survey data could have been analysed much more finely in light of participant's interview comments.

In future work, I would like to explore language teacher identities in more detail, especially within the French context. For example, I could use the ten principles above to frame the analysis of video-stimulated recall interviews which I carried out with two lycée teachers in 2015. Although I presented the methodology at the AFLICO conference in 2015,¹⁰¹ I have not yet published this data but I could trawl the corpus of recorded interviews for (for example) modals, evaluative adjectives and adverbs, or I could mobilise discourse analysis skills to look for extended reflexive comments, teasing out traces of teacher cognition, of beliefs about the native vs non-native debate, about variation, or L2 pronunciation teaching and learning in general. However, I was not sure how to analyse the social factors as well as the linguistic factors, which overarching theoretical framework to apply to structure the analysis of traces of ideology, for example. In preparing this document, I re-read works on Social Identity Theory (SIT), which I now see would be particularly useful for analysing this data as well as future data related to teacher and student identity. Moreover, as reflected in Yuan's critical review of 22 studies on NNEST identity, by choosing to use self-report data and either discourse or qualitative data analysis (e.g., of semi-structured interviews, reflective journals, field observation), I would be following a well-established, qualitative research paradigm to "achieve a nuanced understanding of teachers' identity (trans)formation in specific institutional and sociocultural settings" (2019, 12).

4.2. Tajfel's Social Identity Theory (SIT)

Tajfel defined social identity as "that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership" (1978, 63). Tajfel's contribution to the field is summarised quite neatly in Joseph's chapter for the *Handbook on language and identity*, where the author lists five positions as being "embedded" in Tajfel's definition. Joseph describes them as revolutionary for the time:

- that social identity pertains to an individual rather than to a social group;
- that it is a matter of self-concept, rather than of social categories into which one simply falls;
- that the fact of membership is the essential thing, rather than anything having to do with the nature of the group itself;
- that an individual's own knowledge of the membership, and the particular value they attach to it – completely 'subjective' factors – are what count;
- and that emotional significance is not some trivial side effect of the identity belonging but an integral part of it.

(in Preece, 2016, 23)

Individuals experience positive feelings of social identity when they feel they belong – and are recognised as belonging - to a social group which is seen as desirable. Because Social Identity Theory describes the mechanisms of belonging as well as intergroup behaviour, in addition to describing self-concept and social identity, it would be appropriate for analysing teacher/student or speaker/listener interactions. For example, if a non-native English-speaking teacher is expected to sound nativelike, because their students equate this with authority and/or competence, the teacher who sounds nativelike inhabits – and has been ascribed – a desirable identity. Inversely, if the teacher does not sound nativelike, their students may ascribe a less desirable identity to them, and consequently less competence and/or authority.

¹⁰¹ "Filming a class and interviewing afterwards: Exposing teacher cognition" (Filmer une classe et interviewer après: Exposer l'agir professoral), presented in the workshop *Protocoles de verbalisation/think aloud protocols (TAPs)* of the conference *Langage, Cognition et Société* (AFLiCo 6). May 26-28, 2015.

Social Identity Theory first came to my attention when I was teaching English to psychology students, and several Master's students working on conflict resolution cited Tajfel extensively. They were applying SIT to a wide range of situations, such as the integration of immigrants or bullying in schools – but solely to situations of discriminatory behaviour or otherwise hostile conflict. However, my reading of Tajfel's seminal publications (1974, 1978) revealed an under-appreciated aspect of SIT, one which is key to my own research. Tajfel argues that intergroup relations must be apprehended by focusing on the bi-directional nature of relations, to frame relations as *not* always resulting from aggression and hostility. In 1974, criticizing various approaches to the psychology of intergroup relations, Tajfel focused on “intergroup processes taking as their point of departure *attitudes and behaviour towards outgroups*. (original italics). [...] Both the ingroup and outgroup attitudes were seen as a result of emerging social norms, directly due to an explicit intergroup conflict of goals.” (1974, 66). Tajfel continues, countering that

in order for members of an ingroup to be able to hate or dislike an outgroup, or to discriminate against it, they must first have acquired a sense of belonging to a group which is clearly distinct from the one they hate, dislike or discriminate against (1974, 67).

The predominant emphasis on sense of belonging being a result of - or a reaction to - outgroup threat is

... too one-sided. An adequate social psychological theory of intergroup behaviour must take into account both causal directions: from ingroup processes to outgroup behaviour and attitudes as well as the opposite one which has been until now the principal object of theory and research? (ibid.)

In relation to my research, this bi-directional focus would apply to both teachers and learners, and to both speakers and listeners, as they navigate their identities over long stretches of time (e.g., a work contract or an entire career) or short stretches (e.g., a conversation or even a single speech act). Tajfel describes this as involving

... a complex network of groupings which presents (an individual) with a network of relationships into which he must fit himself. One of the most important and durable problems that is posed to an individual by his insertion into society is to find, create and define his place in these networks. It is reasonable to assume that both his ingroup and outgroup attitudes and behaviour must be determined, to some extent at least, by this continuing process of self-definition. (1974, 67)

It is easy to see why narratives or language biographies would be particularly well-suited to tracing this process of self-definition, but other means have also been used. For example, Breshahan et al. (2002) used a matched guise technique and follow-up questionnaire. Their study is particularly relevant because their findings exposed the potential impact of self-definition on listeners dealing with foreign-accented speech. In their study of teaching assistants at an American university, they confirmed their first hypothesis, that foreign accented speech led to negative affective responses especially in “demanding social roles – with more public accountability” (2002, 173). Moreover, their results concur with other studies into the “climate and lack of receptivity to foreign accent found on many university campuses” (2002, 172), referring to studies in an American ESL context. For example, Rubin and Smith (1990) had found 40% of their undergraduate participants avoided classes with foreign teaching assistants. The novelty of the Bresnahan et al., study is in linking affective response to accented English and self-declared ethnic identification; a weaker ethnic identity correlated with more acceptance of accented English, confirming their third hypothesis. They concluded that “intelligibility, role identity and strength of ethnic identity are key issues in receptivity to accent”(2002, 183). It is therefore important, in analysing interactions via FAS, to gather some form of data related to identity, and thus of context.

Consequently, any mediating L2 pronunciation instructional design should also seize the opportunity to expose identity issues.

In R. Jenkins' discussion of Goffman's 'presentation of self' during interaction (1956) self-definition is also examined, leading into his argument in support of a self-conscious decision-making model that would explain human behaviour:

Although people have (some) control over the signals about themselves that they send to others, we are all at a disadvantage in that we cannot ensure either their 'correct' reception or interpretation or know with certainty how they are received or interpreted. Hence the importance, too, of what Goffman calls 'impression management strategies' in the construction of identity. (2008, 42)

Clearly self-definition has a place in my attempt to reframe how speakers and listeners tackle FAS. Speakers cannot control how their accented speech will be received and pronunciation work will not always be sufficiently effective as a management strategy. How do speakers see themselves? To what extent are they open to modifying their speech (beyond any abilities they may or may not have)? With regard to listeners, they can improve their ability to decipher accented speech and can also be trained to accept variation. How open are they to the concept that successful communication is the responsibility of both interlocutors? To what extent can they adapt their 'ears' as well as their 'hearts'? If I also hold to a decision-making model in which speakers and listeners have great latitude of agency, just how much can explicit practice and awareness-raising mitigate? Obviously, not all aspects of accent are under conscious, voluntary control. Nonetheless, how do actions by speakers interact with their identity spaces and processes?

It is essential to note here that L2 pronunciation instruction is not always seen as ethical. In 1989 Porter and Garvin argued that trying to "change someone's pronunciation – whether of the L1 or of an L2 – is to tamper with their self-image and is thus unethical – morally wrong." (1989, 8). But modifying one's pronunciation need not endanger one's identity. Citing their work with L2 engineers in Canadian workplaces, Derwing and Munro argue that it is not

... immoral or threatening to their identities to assist them to become more intelligible. We have no expectation that pronunciation students will fully adopt Canadian English patterns – there is no need to erase their accents. We simply want them to achieve successful communication both at work and in their everyday lives – exactly what THEY want and why they have sought help. (2009, 485)

While these engineers sought help of their own accord, a potentially more delicate example is given by Moyer, in her recommendation for ITAs:

ITAs must negotiate a new identity through interaction with their students, sometimes addressing the comprehensibility issue head-on, and finding other ways of assessing their own performance. (Moyer, 2013, 119)

In the case of ITAs, for the teacher to belong to the group 'competent professional teacher', both teachers and students need to agree on that membership, that identity – and accessing that membership may involve explicitly addressing a teacher's FAS. As intelligibility and identity are both dynamic, negotiated, bi-directional processes, both interlocutors necessarily must accept their shared responsibility to 'put accent in its place' in order to communicate.¹⁰²

¹⁰² Here I paraphrase the title of Derwing and Munro's 2009 article "Putting accent in its place: Rethinking obstacles to communication", in *Language Teaching*.

To conclude, SIT has been an especially productive theory in social psychology, while simultaneously being criticised in that field and in others which adopted it – default recognition of its importance. Theories exist to be tested by the facts, and widely known theories which are frequently tested are naturally more open to contestation.¹⁰³ Concerning a modelisation of speaker and listener identity in interactions via foreign-accented speech, there is tremendous potential in Tajfel’s positing of an interpersonal-intergroup continuum, between psychological (individual) and social factors. This recognition of a shifting dynamic injects a constructive, proactive hopefulness into any analysis of such interactions and improves our understanding of language learning as identity work. The next four sections examine L2 pronunciation identity issues as they relate to four of the 2016 Douglas Fir Group principles for a socially contextualised model of SLA.

4.3. Authenticity & fluidity/Variability & change are at the heart of language learning

Recent sociolinguistic work has identified authenticity and fluidity as key aspects of social identity, echoing the Douglas Fir Group principle that “Variability and change are at the heart of language learning”. Beinhoff and Rasinger (2016) identify three issues which sociolinguistic research on identity needs to attend to, two of which are especially relevant here: authenticity of data and of speakers, and the fluidity of identities. They recall that both authenticity and fluidity are widely discussed inside and outside linguistics. For their sociolinguistic perspective it is most useful to conceptualise it as a process that requires agency: “authenticity is constructed from the linguistic and paralinguistic features available to the actor to do identity work during interaction” (573). Here they also refer to Coupland’s notion of styling, “deliberately changing the tone of voice, dialect or bodily gestures” (Coupland 2001). This seems directly suitable here, as Beinhoff and Rasinger mention that ‘inauthenticity’ “can be used as a stylistic element to portray a different identity, for example by putting on a different accent” (2016, 574). For example, people imitate characters’ accents when telling a story or a joke, or to mock people. Concerning L2 pronunciation learning, students can be tasked with imitating foreign speakers of their mother tongue, which is precisely what I did with my French students in recent work (AH2021_02, _03). The students had to imitate a native English speaker speaking French, and then immediately afterwards continue to speak, but in English. Acoustic measurements showed little effect of imitation whereas perceptual measures by 235 native and non-native listener-raters, showed imitation was relatively successful. Ultimately it is these perceptual measures which are more relevant to future, professional interactions for these learners. Interestingly, a physical transformation took place when they ‘put on’ their accented speech, most of them adopting a different posture and gestures; in future it would be good to have video as well as audio data, to track such multimodal modifications.

Having successfully modified their pronunciation (i.e., fooled the external listener-raters), they were made aware of that fact and expressed pleasant surprise. A secondary goal was to give them tangible proof of their ability to modify their pronunciation of English, in accordance with arguments to favour accent *addition* – a constructive, positive approach to L2 pronunciation instruction made by many trained language educators and linguists – instead of accent *reduction* – an approach focused on errors and now, sadly, marketed to non-native speakers primarily in English-speaking countries: *change your accent/your life, be listened to!, open professional doors*. Beinhoff and Rasinger say that “To be viewed as authentic, the actor has to select the most relevant type and the ‘right’ amount of authenticity features in order to be convincing” (2016, 574), citing Blommaert and Varis’s notion of ‘enoughness’ (2011).

¹⁰³ In their discussion of controversies and misinterpretations associated with SIT, Turner and Reynolds argue that it is essential for the field of social psychology to recognize the interactionist metatheory behind SIT, as “it is a crucial part of its legacy and a prerequisite for the full development of social psychology’s analysis of intergroup relations and human social conflict.” (2003, 149).

This raises the question of how much is ‘enough’: how much does a speaker need to modify their accent to be intelligible, comprehensible, acceptable, or perhaps even to ‘pass’ as native (see Piller, 2002)?¹⁰⁴

Authenticity, then, comes up against nativeness, because “the ‘native speaker’ is the most authentic representative of the language” (Beinhoff & Rasinger, 2016, 574), and yet the native speaker is difficult to define – dangerously, the concept “is also closely related to the perceived cultural and national background of the speaker” (ibid.). The authors provide the example of native English speakers from the Caribbean who were rated as sounding less native than German and Greek L2 speakers of English,¹⁰⁵ concluding that “the concept of native speaker is more related to a specific model of what a native speaker should sound like.” (ibid.). Beinhoff made a similar observation in her 2013 book, *Perceiving identity through accent*, dealing with the precise consonantal variations in English pronunciation (by L1 German and Greek speakers) which lead to the development of attitudes towards the speaker and, potentially, discrimination. She found that the RP model was the standard by which NNS productions were rated, but even more importantly the results of her first experiment, comparing attitudes to NS English and German- or Greek-accented-English, showed that NNS listeners do not see their identity as reflected by their foreign-accented English. Moreover, ingroup solidarity (with speakers sharing their L1) was less important to them than status and prestige.

We found a similar lack of ingroup solidarity in our study comparing Czech, French and American students’ ratings of English spoken with a Czech, French or American accent (AH2018).¹⁰⁶ In a two-stage perception test, participants had to, first, listen to short phrases and indicate a preference for one of the two speakers. The instructions were:

You will play the role of a personnel manager who has to choose the better candidate to represent your company. You are looking for a person who will have to acquire a lot of nontrivial knowledge about the company and who will be competent and trustworthy when representing the company in negotiations. Obviously, personnel managers normally have a CV and other information about the candidates. Your task in this game is to make the decision based only on the candidates’ voice.

In the second stage, participants heard longer extracts and had to make judgments about the speaker’s personality: their reliability and punctuality, memory and ability to see connections, and effectiveness. Whereas the Czech listeners were more lenient, the French students gave very low ratings to English spoken with a marked French accent and preferred the other accents, which would seem to confirm the powerful influence of a standard language ideology on attitudes in France, described as a standard language culture (see Milroy, 2001).

Concerning the fluidity of identity or the notion of identity as highly variable and context-dependent in a multilingual global context, a yawning gap exists between the diversity which applied linguists and sociolinguists celebrate, and the monolingual backdrop of French society, “where language is considered to be a vehicle of authenticity and – regional or national – values” (Beinhoff & Rasinger, 2016, 575). While this has been explored by researchers outside France, “social studies of English have a somewhat minority status in the French-speaking academic world”.¹⁰⁷ This quote is from the call for contributions for a June 25 2021 workshop at the Université de Lorraine: *SSEFFF. Social Studies of the English Language in France and the French-speaking World*. Wharton and Wolstenholme (2019) are

¹⁰⁴ Piller takes an ethnographic approach, to “provide a description of high-level achievement through the accounts of expert L2 users themselves. In these accounts passing for a native speaker emerged as a focal point for the ‘measurement’ of high achievement” (2002, 181). Her analysis shows how such expert L2 users describe passing as a temporary performance (often very brief encounters as when shopping, for example) that is specific to a context, an audience and a medium.

¹⁰⁵ This is a clear example of listeners deciding the identity of a speaker, of *ascribing* an identity to them.

¹⁰⁶ See also other results, as discussed in 3.4.b. *Social aspects*.

¹⁰⁷ The organisers are Adam Wilson and Marc Deneire.

cited in that Call for Proposals and constitute a rare yet excellent example of work being done in the French context, to be which could be added the doctoral thesis of Françoise Le Lièvre (2008), *English in France, a multiple language. Practices, representations and learning postures: A study in university contexts*¹⁰⁸. Part of her thesis deals specifically with French students' accented English and their associated linguistic insecurity. A broader question therefore emerges, concerning the diverse English users in French universities (whether teachers, students or otherwise) and the extent to which native-like English pronunciation – and the necessity of 'mastering' it – has significance for them.

Dörnyei and Ushioda speak of the learner's 'ideal self', as “the attributes that someone would ideally like to possess” (2009, 4), and Beinhoff and Rasinger refer to that term in a way which is highly relevant to the context of internationalising university campuses in France:

... within the context of English as a global language, second language learners of English may have to decide whether their ideal self is part of the global English community or whether it is more oriented towards acquiring a first language variety of English as fully as possible. Indeed, it seems that it is difficult – if not impossible – to decide between the two, which can lead to uncertainties about the desired aim in acquiring the second language (Jenkins 2007) and can result in changes in motivation (Dörnyei and Ushioda 2009). (2016, 578)

Pinpointing this uncertainty in a changing French higher education context would provide valuable insight into the construction of identity – *of* or *as* – teachers, students, learners, speakers, listeners. A good example of such research is Hartwell and Ounoughi's survey of 1900 students at French universities, which included just over 20% international students and examined host and international student's experiences at a large, high-ranking research university in France (2019). Their findings show both populations remaining firmly within their 'comfort zones', in terms of their self-declared language concerns and practices. Perhaps the data could be re-analysed from an identity perspective. While research into the French higher education context has not (yet?) touched on Yuan's (2019) three major themes¹⁰⁹ in terms of non-native English teacher identity, it would be productive to mobilise the concepts of Ideal Self (Dörnyei & Ushioda, 2009), Higgins' Ought Self (1987) or perhaps Barkhuizen's Imagined Self (2016). Filmed classroom observations could be analysed, to document how teachers and students interact and pinpoint where or how “native speakerist discourse may be formed and/or overturned in classroom situations” (Yuan, 2019, p14). Such data might also expose students in the process of constructing their identity, and here Norton makes a distinction between instrumental motivation and what she calls investment, which in 1995 she presciently defined as being socially situated and dynamic:

The conception of instrumental motivation generally presupposes a unitary, fixed, and ahistorical language learner who desires access to material resources that are the privilege of target language speakers. In this view, motivation is a property of the language learner – a fixed personality trait. The notion of investment, on the other hand, attempts to capture the relationship of the language learner to the changing social world. It conceives of the language learner as having a complex social identity and multiple desires. The notion presupposes that when language learners speak, they are not only exchanging information with target language speakers, but they are constantly organizing and reorganizing a sense of who they are and how they relate to the social world. Thus an investment in the target language is also an investment in a learner's own social identity, an identity which is constantly changing across time and space. (1995, 17-18)

¹⁰⁸ The original French title is : *L'anglais en France, une langue multiple. Pratiques, représentations et postures d'apprentissage : une étude en contexte universitaire.*

¹⁰⁹ His critical review identified three major themes in 22 studies: identity development through social engagement; identity conflicts and struggle at the intrapersonal, interpersonal and contextual levels; identity crisis with teacher attrition.

Davies similarly emphasises the aspects of fluidity and agency, stating that

[...] membership can change, it can be added to. Of course, application is needed: membership requires work. The native user is a learner who keeps on learning, keeps on gaining. That is equally true of the native speaker who must also keep learning [...]. (2013, 8)

As noted in Section 2.4. (*Attitudes to travel*), speakers and users have the same rights and responsibilities, and native speakers are equally subject to the imperative to continue learning and evolving. From his perspective, individuals are agents of potential change and can add to their language(s) as they can add to their identit(y/ies). However, neither his additive conceptualisation nor Norton's flexible investment concept are dominant in national language teaching discourses, many of which (including France's) are dominated by the static concept of native speakerism.

4.4. Native speakerism & professional identity/Ideologies permeate all levels

The most persistent ideology in language teaching is native speakerism or nativism, which feeds readily into *glottophobie*, Blanchet's neologism from 1998 to designate a certain type of linguistic discrimination. He defined *glottophobie* as:

... contempt, hatred, aggression, rejection, exclusion of people, negative discrimination actually or allegedly based on considering to be incorrect, inferior, or bad, certain linguistic forms (perceived as languages, dialects or language usages) used by these people, in general focusing on linguistic forms (and without always being fully aware of the extent of the effects produced on people). (2017)¹¹⁰

Blanchet describes how it took him over a decade to decide upon the term, as he wanted to distinguish it from linguistic discrimination, in order to reaffirm the human and social dimension of discrimination towards a person, instead of towards a language. If negative reactions are conceptualised as reactions to a language, they are somehow seen as more "objective and uncontestable", but his *-phobie* term inserts *glottophobie* in the long list of other forms of *altérophobies*, or fear of Others because of their difference: xenophobia, homophobia, Judeophobia/antisemitism, islamophobia (Blanchet, 2017).

Once the non-native speaker is labelled pejoratively as Other, they can easily be represented as deficient – either culturally (Holliday, 2005) or linguistically – and the native speaker ideology depends on this. In education systems, this ideology is entrenched to varying degrees, from recruitment practices to decisions concerning model varieties or teaching materials. For example, midway through the EPTIES survey in 2011 (AH2013_01), we had 111 responses from six different countries (Finland, France, Ireland, Spain, Sweden, Switzerland).¹¹¹ Asked which variety(ies) or model(s) they used in their classes for productive and receptive work, respondents indicated that RP and GAE predominated in both types of work, with 'a type of English as an international language' also making a strong showing. Moreover, when asked about their learners' aspirations, only four teachers out of 111 respondents indicated that their students aspire to sound Nativelike, three of whom were teachers in France and one in Sweden. This contrasts with the fact that none of the teachers from the four other countries indicated

¹¹⁰ Original text: "... le mépris, la haine, l'agression, le rejet, l'exclusion, de personnes, discrimination négative effectivement ou prétendument fondés sur le fait de considérer incorrectes, inférieures, mauvaises certaines formes linguistiques (perçues comme des langues, des dialectes ou des usages de langue) usitées par ces personnes, en général en focalisant sur les formes linguistiques (et sans toujours avoir pleinement conscience de l'ampleur des effets produits sur les personnes)." (Blanchet, 2017 e-book, part 5)

¹¹¹ At the time we were still waiting for ministerial approval in order to be allowed to include the results for Germany. Following the death of our German colleague, Dr; Alexander Kautzsch, we were never able to follow-up on our request.

that their students want to sound native or near-native.¹¹² These limited results support Derivry-Plard’s conclusions (2008; see sub-section 3.4.b. *Social aspects*) that in France, strong social schema idealise the native speaker and the native teacher, with accent being a key indicator of the native speaker teachers’ greater linguistic competence (2008, 285). In this context, a negative representation of the non-native not only impacts teacher identities, but also students’ identities and their representations of what constitutes good English, good teaching and good teachers. Pronunciation is probably the most obvious rallying point for comments which reveal a nativist bent (see Blanchet & Clerc Conan, 2018, *Et je n’ai plus osé ouvrir la bouche*). However, as non-native speakers of English constitute the majority of L2 English teachers worldwide and in France, it is crucial to understand how they describe their identity.

The professional identity of English teachers obviously varies across countries, systems, sectors and individuals, but “we” are all part of World TESOL, to use Holliday’s term:

English language “teachers, academics, curriculum develops, writers, publishers, and so on [...] share the idea of a common, international professional academic identity, which is expressed in the way that, from our different backgrounds, we come together in faculties, projects, and conferences across the world. (Holliday, 2005, 2)

This echoes Hyland’s idea of disciplinary identity as located not in physical sites (e.g., specific campuses or institutions where people work), but rather:

It is in disciplines ... that the important interactions in a professional’s life occur, bringing academics, texts and practices together into a common rhetorical locale. [...] members will see themselves as having some things in common and being, to some extent, similar to each other. (2012, 25)

Disciplinary identity was not explicitly examined in Yuan’s (2019) critical review of 22 studies published from 2008-2017 on non-native English teacher identity. However, teachers’ disciplinary identity may respond to different social forces – or “grand narratives” (Yuan, 2019, 14) – depending on whether they work in an EFL or ESL setting. In Table 15 I use that criterion to categorise the studies reviewed by Yuan:

<i>Location</i>	<i># of studies</i>	<i>ESL or EFL?</i>
Hong Kong	11	arguably ESL
Singapore	2	ESL
Mainland China	2	EFL
Iran, Philippines, Mexico, South Korea, Turkey, Taiwan	7	EFL

Table 15: Re-categorisation of Yuan’s selected studies as being from ESL or EFL contexts

The distinction between ESL and EFL here is not based on the presence or absence of a country’s colonial past, but rather on the degree to which the learning environment either provides – or fails to provide - ample opportunities for meaningful input and interaction in the target language (English). This is important because of the crucial role of input in language learning; in an EFL setting there are far fewer opportunities for learners to manipulate the language outside the classroom. Re-analysing Yuan’s data with the EFL/ESL distinction could reveal interesting differences, even though the majority of the studies come from a specific context (Hong Kong) currently undergoing drastic societal changes, which will undoubtedly affect ELT there. This brings me to explore authenticity and nativeness in language learning and identity construction within French higher education.

¹¹² Statistical analyses of the final data set confirmed this correlational tendency for France but did not show significant effect due to the type of course or age/institutional level of learners.

4.5. Authenticity & identity in French-speaking contexts/Language learning is identity work

A recent workshop held in Metz by ALOES,¹¹³ focused specifically on authenticity and what it means for the teaching of spoken English in France. The titles of the talks reveal the categories of existing research in France: authentic materials, tasks and productions, as well as sociolinguistic, phonological and institutional aspects of authenticity.

<p>Authentic materials: Fundamental and applied research</p> <ul style="list-style-type: none">– Authentic oral and identification of linguistic stakes– Demo of platforms: eTwinning, TVLangues, Overseas Impressions– “Get your words in”: Pedagogy of exchanges by distance– Limits of using authentic documents in language classrooms <p>Authentic production & promotion of interaction</p> <ul style="list-style-type: none">– What types of activities for authentic oral production, in interaction and in continuous speech?– What kind of training to help pupils communicate authentically in the language class? <p>Authentic utterances: Learning to listen</p> <ul style="list-style-type: none">– The implications of authenticity for teaching listening <p>Authentic production: Feedback on experiences</p> <ul style="list-style-type: none">– Small stories in context: Theories and applications in ELF-classrooms– Using the ‘Map Task’ as a resource for oral production in the classroom <p>Authentic communication: Sociolinguistic stakes</p> <ul style="list-style-type: none">– Context and contextualisation: Hallmarks of authentic spoken English <p>Authentic communication: Phonological stakes</p> <ul style="list-style-type: none">– Authenticity in English pronunciation <p>Authentic communication: Institutional stakes</p> <ul style="list-style-type: none">– What type of institutional place for authenticity?

In the presentations about teaching experiences, ‘authentic in relation to materials’ referred to how ‘unmodified’ teaching materials are (i.e., the teacher does not change form or content) and an authentic task was related to how closely it imitates a natural communicative situation. The latter was most apparent in Wilson’s talk about the sociolinguistic stakes, in which authentic oral English was described as doing things with English. Wilson’s elegant argument was that research and teaching decontextualise language, separating it from its context, but the language and context are necessarily intertwined. Authentic materials are often simplified for teaching, but this reduction of contextual elements reduces access to contextualization. Wilson argues that, if contextualisation is a mark of authenticity of natural language (citing Bourdieu, 2001), then he feels it is necessary as a researcher to recontextualise his data and, as a teacher, to solve the puzzle of how that can be applied to teaching. One solution he suggested for teaching oral English was to develop learners’ communicative competence (Gumperz & Hymes 1972), so that they can mobilise it in a variety of contexts, in other words to socialise them for a variety of situations. The talk by Schaefer on authenticity in English pronunciation more explicitly touched upon native speakerism. His pedagogical question was: *How do you get to precise sounds if you haven’t worked on precision before?* He answered by giving examples of exercises and techniques, organised under these headings:

¹¹³ ALOES is an association of English language specialists in France, focusing on the spoken language at all levels of education (*Association des Anglicistes pour les études de langue orale dans l’enseignement supérieur, secondaire et primaire*). In even years they organize a 1½ day workshop on research into spoken English and in odd years the workshop is devoted to didactic aspects of spoken English, particularly with regard to secondary and primary education. The March 2019 theme was “What kind of authenticity for the teaching of spoken English?” (*Quelle authenticité pour (l’enseignement de) l’anglais oral?*).

- Native or (native-like) foreign speakers
- Spontaneous or scripted (dramatised) speech
- Read-aloud texts
- Regional accents and dialects
- Rhythms

Interestingly, he then went on to discuss authentic non-RP (from the *New Missions* textbook), Estuary English on YouTube, as well as Greta Thunberg as providing authentic interaction. Schaefer's talk was an excellent example of a research field in transition, in France at least, where the pressure of a norm is hiding just below the surface of much research.

The final talk, by an *Inspecteur general* for English in the national educational system, examined the institutional stakes in three parts: first authenticity in official texts, second as a word and its collocants, and third in terms of its functions. In his high-speed, abstract presentation, he spoke of authenticity as a virtue that makes people better, by valuing both what is unique and what is universal, and that asking pupils to speak authentically amounts to requiring them to step back from themselves, what he called 'de-centering' the speaker. From an identity perspective, this is fraught with risk, which may partly explain why for so many L2 speakers it is so hard to dare to speak.

Intrigued by the idea of looking more directly at an institutional perspective on English language teacher identity and authenticity, I therefore compared how the term authenticity/*authenticité* is used by the juries who are the gatekeepers for entry into the profession in France (in Public Institutions). To this end, I compared jury reports from 2010 and 2019, for the two, national competitive exams to become a tenured English teacher in France: the *CAPES* and the *Agrégation*. These reports are explicitly meant to inform future candidates about how to prepare appropriately for the exams, and reflect an official conceptualisation of competences which future English teachers must possess.¹¹⁴ Common collocations of *authentique/authenticité* were analysed in the reports, in relation to two questions. First, in terms of what constitutes authentic English, the most common adjectives were stable, standard, or lacking traces of L1 French which was described as *non-francisé*. The second question, about how one could become more authentic, was repeatedly framed as requiring more time in native English-speaking contexts and – refreshingly – listening to a range of native varieties. This brief textual analysis confirmed that achieving a pure, static native norm is still the objective for spoken English, and yet there is a nod to the plurality of varieties in relation to listening. This constitutes evidence of tension, both in terms of what meaning to attribute to *authentique/authenticité* and to its importance for teachers' professional identity, real or ideal.

Continuing with the argument that language learning is identity work, a speaker's chosen (inhabited) L1 identity clearly has an impact on a speaker's L2 pronunciation. However, that impact is not as instinctively recognised by listeners as the impact of their L1 sound system (Hansen Edwards, 2008, 251). An example would be speakers who, when speaking another language, choose to retain specific L1 pronunciation features as a mark of L1 identity – explicitly signalling their L1-ness, i.e., the trademark, heavily accented English of Antoine de Caunes on the 1990s *Eurotrash* TV series or French as spoken by Jane Birkin. Another example (and one which is quite apt for my teaching context), is Gatbonton's well-known research into the use of interdental fricatives in French Canada (1975). She found that learners who were less nationalistic used more English L2 dental fricatives than the more pro-French learners.¹¹⁵ However – and fortunately – even if I replicated her study with my French

¹¹⁴ This can present ethical issues. For example during a Q&A session at the ALOES conference someone mentioned the case of an Indian who passed the English *Agrégation* exam. However, the parents complained to the school that their children did not understand her, and yet she had been officially 'certified' by the *Agrégation* jury as a native speaker.

¹¹⁵ Gatbonton continued publishing on this feature, for example, linking dental fricatives and ethnic group affiliation (EGA) in a 2011 study with her husband Norman Segalowitz, and a younger, prolific and talented

university students in France (i.e., members of the majority and dominant language group in France), especially those for whom English is an obligatory subject (i.e., studying English is not a personally motivated choice), and even if the findings were similar for a given point in time, I could not then assume that my study participants would never change. As R. Jenkins puts it: “One’s identity – one’s identities, indeed who we are is always multi-dimensional, singular and plural – is never a final and settled matter.” (2008, 17). Evidence for this can be seen in how a speaker changes their pronunciation, register, gestures or intonation during the course of an exchange, even more so in different social contexts or when faced with different interlocutors¹¹⁶. We do this in our L1 and in other languages we learn – within the scope of our language proficiency. Therefore, at what proficiency level could learners accept and exploit changes in their pronunciation, and variation in others’ pronunciation?

Few people would dispute the reality of codeswitching, that we can consciously choose to use language differently – or to use our different languages – in order to express different aspects of our identity (e.g., Lo 1999), and that at least in our L1, most of us can similarly modify our accent. Language teachers encounter students who are capable of quite clear and accurate L2 pronunciation in an individual tutorial and yet in the classroom/group, these same learners may hesitate to use that pronunciation; are they afraid that – if they pronounce “too well” - they will somehow be less a member of the group of students, or even less a member of their L1 group? i.e., will they be stigmatised? The findings of Gatbonton et al. (2011, 201), showing that language use mediates a negative association between ethnic group affiliation and L2 development, led them to conclude that

L2 users’ failure to demonstrate high levels of L2 oral proficiency does not necessarily imply a lack of ability to learn. In some cases, low-achieving L2 users may simply be curtailing their exposure to the L2 because of identity concerns. If this is the case, it may be important to provide these individuals with ways to affirm their ethnic identity without it having a negative impact on their language learning success.

Gatbonton was referring to whether one seeks opportunities to interact with speakers of the target L2, but the same applies to consciously managing one’s L2 pronunciation. This raises the issue of whether identity is like a hermetically sealed case of limited volume, in that if you add something, then something else has to be jettisoned. If membership of one’s original group(s) is threatened by potential membership of another group, the individual faces a very difficult decision. Gatbonton’s work is important to my context, because it repeatedly shows that identity issues are not merely associated with the learning of an L2 but can impact upon it in significant ways (see, for example, Gatbonton et al., 2005).

The impact upon L2 learning of context and norms has been deftly modelised by MacIntyre, in his Willingness to Communicate model (MacIntyre et al., 1999; Clément et al., 2003). MacIntyre also participated in the 2003 study, done in a bilingual Canadian environment, and which showed the effect of context and social factors, combined with individual factors, on moderating L2 use. Participants were

colleague of hers whom I have repeatedly cited, Pavel Trofimovich. (See Gatbonton, E., Trofimovich, P., & Segalowitz, N. (2011). Ethnic group affiliation and patterns of development of a phonological variable. *Modern Language Journal*, 95(2), 188–204.

¹¹⁶ Tony Blair was regularly derided in the press for changing his accent, as in this 1998 *New York Times* article “Britons Prick Up Their Ears: Blair’s a Li’l Peculiar”: “Tony Blair is a Prime Minister who prides himself on his common touch, so there was nothing particularly surprising about what he said recently on a British talk show. [...] where were the Prime Minister’s T’s? What happened to his H’s? [...] As it watched the show, a nation acutely aware of the nuances of accent noticed with a jolt that the Prime Minister had apparently changed his. The familiar Mr. Blair, with his soothing, almost preacherly voice -- a voice that sets him linguistically above the working classes and is a slightly modified example of what is known here as Received Pronunciation -- had disappeared. In his place was a new Tony, a Tony speaking something called Estuary English, a hybrid accent that was first identified in 1984 and says something else altogether.” (Lyll, S. June 18, 1998), <https://www.nytimes.com/1998/06/18/world/london-journal-britons-prick-up-their-ears-blair-s-a-li-l-peculiar.html>

130 Anglophones (majority) and 248 Francophones (minority). Clément et al. found that subjective norms influenced the relationship between L2 confidence and identity – but only for the Francophones; would this be due to the fact that Anglophones are the majority and the dominant group in Canada? Were the Francophones revealing a lack of confidence as the linguistic minority or dominated group?

4.6. Authenticity & linguistic (in)security/Emotion & affect matter at all levels

The concept of linguistic (in)security is one final aspect of language learning as identity work which must be addressed here, especially with regard to accented speech. Labov may have been the first to use the term (1968), but Francard (working in European francophone contexts) associated it with educational systems, as well as interlocutors’ awareness of the norm, and more recently Calvet also fine-tuned the concept (Table 16):

	<i>Francard, 1997, 172</i>	<i>Calvet, 2009, 47</i>
linguistic security	Speakers who judge that their linguistic practices coincide with legitimate practices, either because they themselves are recognized as legitimate users, or because they do not consciously realize the distance which separates them from this legitimacy.	For varied social reasons, speakers do not feel any need to question themselves as they consider their norm to be THE norm.
linguistic insecurity	Speakers realize the distance between the norm which they have inherited (<i>hérité</i>) and the norm which dominates the linguistic marketplace.	Speakers consider their way of speaking as poorly valued and have in mind another more prestigious model, but they do not use it.

Table 16: Two authors’ explanations of linguistic (in)security

This looks quite simple, yet real-world examples show how many factors combine to magnify or at least modify the impact of linguistic insecurity. For example, perhaps linguistic insecurity is what Chang (2008) was referring to by “low linguistic self-confidence” in her study of English in Singapore. Her listeners had different backgrounds (American, Filipino, Indian, Malaysian and Singaporean) and she asked them to judge the acceptability of accented statements on a seven-point scale: ‘I consider this sort of English acceptable/unacceptable for international communication’. The native speaker (US English) was the most preferred, followed by ingroup preferences (for speakers with one’s own accent) as Tajfel’s SIT would predict, with the Filipinos split between the two. However, in order to explain the strong outgroup preference of the Malaysian listeners, Chang mentions not only low linguistic self-confidence, but also the fact that – as all listeners gave negative ratings to the Malaysian-accented English – they might be stigmatised as a group of English speakers in Singapore. Or, less problematically, listeners who rated them negatively could simply be less familiar with that accent. Therefore, in the language classroom different types of intervention would be appropriate: if it is merely a question of familiarity with an accent, one solution could be to include listener ear training in English classes. If on the other hand, Malaysian-accented English speakers are stigmatised (probably leading to linguistic insecurity, in Calvet’s words, “Speakers consider their way of speaking as poorly valued”), then ear training would not suffice. Ledegen (2000) makes a further distinction in the concept of linguistic insecurity which would be helpful in analysing the identity of language learners: that between dynamic and static linguistic insecurity, depending on whether the speaker feels there is a need to change their linguistic practices or not. To what extent would Malaysian background learners in Singapore feel they should change their English pronunciation? What could the teacher do to increase their sense of investment in changing their pronunciation? Could awareness raising exercises which highlight the distinction between intelligibility and acceptability improve speakers’ as well as listeners’ sense of security? This example shows how a deeper understanding of learner identity can help teachers to make more appropriate pedagogical choices.

In doing this *Habilitation*, I have come to understand how identity issues might lie behind numerous behaviours observed among my students and peers in France, and which I have discussed with colleagues from around the world. These discussions and recent readings have led me to grasp the extent to which English language teaching in France is impacted by the country's highly normative approach to language – be it toward French or English or any other language. Much research has pointed to the historical, societal, and political obsession with a language norm as the cause for widespread linguistic insecurity (see for example Labov, 1966/2006; Francard, 1989, 1993, 1997; Candéa & Véron, 2019). Candéa and Véron argue that such insecurity expresses a profound “identity disarray” (2019, 214) and is a reaction to the superdiversity¹¹⁷ of today. It is accompanied by a quest for authenticity. Candéa and Véron devote three pages to analysing the (futile) search for an ‘authentic accent’ in France (2019, 215-217):

In the 1960s and 70s, sociologists and dialectologists studied rural speech (especially that of elderly men) to try and find the real patois, or the authentic dialect. Now, this type of research is no longer possible, mainly because of increased mobility, the tentacular reach of the medias and new technologies. Pure patois, pure dialects, pure accents, people who are born and raised and live in the same village and communicate only with their neighbours born in the same village, all that is in the past, in France and elsewhere. In the world of superdiversity, there are almost as many accents as there are individuals. (*personal translation)

Authenticity in today's France is carried by one's accent, Candéa and Véron argue in their book *French is ours! A little guidebook to linguistic emancipation*. This results in some people choosing to maintain an accent or language (regional or foreign), while nonetheless at the same time acquiring ‘international French’ or ‘French without an accent’ in order to access the realms of power and prestige. Moreover, the two authors provide excellent analysis of how and why people often claim that the French language is in danger – but more importantly, they show how we can “love French, its richness, its complexity and its history, and be confident of its vitality, without indulging in nostalgia for a legendary past age” (2019).¹¹⁸ Their book describes very well the backdrop of my teaching environment, one which weighs on many of my learners when they use (or have to use) English. Evidence of such linguistic insecurity among teachers also arose in the results of the EPTiES survey. Some of the questions dealt explicitly with native speakerism but the answers to numerous questions revealed teachers' beliefs, explicit and implicit attitudes regarding language learning and their own teaching abilities. One of the most surprising findings was the negativity of even native English speakers, who expressed:

- scepticism about the value of teaching pronunciation;
- a lack of confidence in their ability to teach pronunciation, which they attributed to not mastering phonetic symbols;
- rejection of pronunciation in course design due to a lack of time.

These three reactions were common in all countries and represent the sort of thinking which motivated Grant to publish *Pronunciation Myths: Applying Second Language Research to Classroom Teaching* (2014), “onceived as a ‘best practices’ resource for pronunciation and speaking teachers”. The contributing authors challenge seven myths:

¹¹⁷ This concept was coined by the British sociologist Vertovec in 2007 and, to his surprise, has since been applied to a vast diversity of fields, objects and topics, as he explains in his 2013 blog post at the Max Planck Institute for the Study of Religious and Ethnic Diversity: <https://www.mmg.mpg.de/38383/blog-vertovec-super-diversity>. (See Vertovec, S. (2007). Super-diversity and its implications. *Ethnic and Racial Studies*, 30(6), 1024–1054.)

¹¹⁸ Translated from the book jacket: “On peut à la fois aimer le français, sa richesse, sa complexité et son histoire, et avoir confiance dans sa vitalité, sans se complaire dans la nostalgie d'un passé mythique”.

- | | |
|--|-------------------|
| 1) Once you've been speaking a second language for years, it's too late to change your pronunciation. | Derwing & Munro |
| 2) Pronunciation instruction is not appropriate for beginning-level learners. | Zielinski & Yates |
| 3) Pronunciation teaching has to establish in the minds of language learners a set of distinct consonant and vowel sounds. | Field |
| 4) Intonation is hard to teach. | Gilbert |
| 5) Students would make better progress in pronunciation if they just practiced more. | Grant |
| 6) Accent reduction and pronunciation instruction are the same thing. | Thomson |
| 7) Teacher training programs provide adequate preparation in how to teach pronunciation | Murphy |

Several of these myths, especially #5 and #6, underlie common assumptions about English Medium Instruction. As this teaching format crystallises numerous language learning and identity issues, this text now turns to it.

4.7. EMI & crossing boundaries

The widespread idea that native speakers should have a monopoly on language teaching competence betrays a dominant nativist ideology. This ideology colours English Medium Instruction, in that the optimal EMI instructor is often held to be the native English-speaking disciplinary specialist, who is already on site or may travel in for short courses. That said, native speakerism in EMI does seem to be loosening its stranglehold in certain countries, as explained by Inbar-Lourie and Donitsa-Schmidt (2020). They point to a decrease in NS norm influence:

... though the traditional NS of English model is still perceived as the established norm, this ideology has increasingly been breached due to the use of English as an international ELF. Accordingly, there is a gradual detachment from NS norms as the criteria used in instruments that evaluate EMI lecturers' English proficiency. For example, the Test of Oral English Proficiency, which is administered to academic staff by the University of Copenhagen, has now eliminated the reference to NS abilities (Henriksen, Holmen, & Kling, 2019) that its previous versions included ... (2020, 2-3)

Their findings from Israeli higher education echo the Danish situation, as the 465 students surveyed did not necessarily prefer a native speaker, listing primarily language expertise – mentioning that local language proficiency was also essential – and subject matter expertise:

Those in favor of the NS as the ultimate EMI program lecturer mostly commented on his/her ability to improve students' English language proficiency and to raise the course's academic level. (2020, 8)

Citing one student's reply: "Part of the reason for choosing to study in English is to improve my English and enrich it. If English is not the lecturer's mother tongue, then he is in the same situation as me and I will not achieve my goal in this course" (2020, 8). In the Swedish HE context Kuteeva found varied conceptualisations of native speakers, and her analysis of five student interviews points towards a dynamic view of what the acceptable standard of English can be (2019).¹¹⁹

Overall, EMI should be conceptualised as a set of opportunities to improve how people react to and cope with foreign accented speech. Furthermore, EMI is just one aspect of internationalising

¹¹⁹ The study also documents some exclusionary behaviours related to Swedish-English translanguaging, a useful reminder of how EMI contexts do not necessarily promote a 'big happy family' atmosphere.

campuses, so it concerns non-academic staff and not just teachers and students. The table below summarises stereotypical identity traits attributed to three university populations, as pertinent to spoken interactions where at least one interlocutor is a non-native speaker (Table 17):

Teachers	Students¹²⁰	Non-academic university staff
members of a profession that traditionally is a dominant, prestige group (despite numerical minority)	members of a traditionally non-dominant/dominated group (despite numerical majority)	occupy posts that traditionally are non-dominant, unprestigious (despite numerical majority)
standard bearer, responsible authority	“receiver”/follower of rules	authority or “receiver”, depending on varied hierarchical levels
capable of professionally effective behaviour		
capable of asking/answering questions & exchanging ideas		
capable of learning		
native & non-native speakers		
potentially not easy to understand		
potentially pigeon-holed by their accent (in their L1, L2, L3, ...)		

Table 17: Stereotypical identity traits of three university populations

These stereotypes resemble all stereotypes, in that they can never adequately represent reality over time; individuals shift roles to accommodate the norms of a context, sometimes innumerable times in a single day. For example, it is possible to be a teacher (traditionally dominant and prestigious role) who is not respected, or an administrative worker who occupies a prestigious post or *mission*, i.e., the polyglot library administrator who represents the University in an international consortium. Nonetheless, stereotypes about the teacher-student relation, for example, remain a rich seam for innumerable jokes and parodies (texts, videos, etc.), revealing their hold on the popular imagination. Fortunately, the effects of categorizing people into dominant-dominated groups can arguably be mediated through training.

Most importantly, this table highlights how the differences between teachers, students and non-academic staff are minor compared to their more numerous commonalities, especially concerning spoken interaction. The table also highlights how, within a university context, non-academic staff occupy a challenging institutional space. They navigate between different hierarchical levels (dealings with the boss, peers or with underlings) and are required to alternate between being the standard bearer or the rule follower. Their place arguably requires more flexibility than (tenured) teachers in French higher education, who experience a pecking order “lite”, in that they have essentially no institutional superiors who can oblige them to behave in a certain way. It might be that the flexibility inherent to their work environment might make non-academic staff more ideal candidates, paradoxically, than teachers or students (whose roles are more stereotyped), for training to deal with spoken language variation. They might be more prone to develop what Yuan calls robust and malleable identities, balancing their core values

that glue their multiple identities together (hence ‘robust’) and their individual agency and flexibility in adjusting to complex situations, taking up new challenges, and embracing potential changes (hence ‘malleable’). (2019, 17)

In a similar way, it is possible to argue that EMI lecturers also inhabit an in-between space and that, by teaching in a language that is not the L1 of (most?) of their students, they leave their comfort zone as recognised field experts. However, there is risk in crossing such boundaries, because for their

¹²⁰ The term “student” is used instead of “learner” to indicate their official institutional status and because it distinguishes them from teachers and non-academic staff - all of whom can be learners. (Some teachers are also researchers, but no mention is made here of that specificity.)

students they are the face of an opportunity to encounter English. Students in Japan and China, surveyed for a British Council report on EMI, held this perception, while their teachers saw it more as “an instructional approach to content learning, rather than as a tool for learning English”. (Galloway, Kriukow, and Numajiri, 2017, 33). This is echoed in a study in Catalonia by Block and Comas, who researched the self-positioning of EMI lecturers (2019). The teachers they interviewed self-positioned “as a professional who does not correct his students’ English – and, it is understood, does not engage in activity deemed to be in the realm of English language teaching” (ibid., 1). The authors also refer to research across higher education in many countries (Sweden, Denmark, Italy, Spain, Turkey, China, Japan, Thailand), confirming that “... the allegiance to a disciplinary identity (e.g., an engineering professor) is systematically invoked and the prospect of acting as an English language teacher is systematically minimised, if not rejected outright” (ibid.,1).

This stance (refusing to consciously act as language teacher) could be interpreted as a positive show of respect among colleagues, i.e., the engineering professor recognizing the expertise of the English teacher. But regardless of the potential validity of this interpretation, the effects of the mismatch between student and teacher representations of the EMI teacher’s role potentially undermine the benefits which EMI is supposed to afford. Block and Comas see this refusing stance as evidence of resistance, as opposed to acceptance, and cite Foucault’s concept of gaze (1973/1963) to explain why they focus on resistance concerning EMI lecturers’ self-positioning:

... gaze is not just about taking in and documenting what is happening before the observer’s eyes; it is also about categorizing and shaping others according to dominant discourses of normativity. [...] where there is a gaze, there is a wide array of possible responses on the part of subject. These range from compliance, acquiescence and acceptance, at one extreme, to resistance [...] at the other extreme. Resistance always exists as a counter to hegemony and uneven power relations and it may or may not be successful as an attempt to challenge and overturn such relations. This means that in any analysis of storylines emergent in interaction, it is interesting not only to consider instances in which the gaze is, in effect, accepted and owned by the gazed-upon, but also instances in which it is resisted, and beyond this, the effect of resistance. (2019, 7)

Block and Comas contrast the gaze of the EMI professor with that of an ELT professional. In their study they interviewed three EMI lecturers at the University of Lleida, who had signed up for EMI willingly and accept English as a necessary part or as an obligatory step in their career. The researchers argue that the EMI gaze rests upon underlying “general (and global) discourse formations about internationalisation which include discourses about Englishization, and further to this, EMI as a key element in the process” (2019, 7-8).

Additionally, Block and Comas cite the repeated claim from their interviewees – ‘I am not and cannot be an ELT’ (2019, 14) as conflicting with the fact that EMI teachers have made a decision about language, in their focus on vocabulary - but “... only because it is deemed by lecturers to be subject knowledge rather than linguistic knowledge” (ibid.). They cite one of the lecturers, who when asked how he could help his students learn the necessary field-specific English, “ascribes to students the duty of organizing their own English language learning – ‘studying as they have always done’ as ‘it’s just a matter of spending hours’”(2019, 11)¹²¹. Another lecturer says that it is not her place to highlight grammar, that students will find out for themselves, yet paradoxically, at the same time she feels justified in correcting students’ use of specific, technical vocabulary (ibid.). The consequence is that, without explicit teaching of language, students cannot truly take advantage of EMI’s potential: “there is no attention to language manifested in the classroom, as there are no pedagogical moves toward a true

¹²¹ See Grant (2004), Myth #5: “Students would make better progress in pronunciation if they just practiced more”.

CLIL-ization of EMI” (ibid.), in that CLIL involves explicit language teaching, recognizing the fallacy that exposure alone magically improves language mastery. This situation, which is not unique to the University of Lleida, cries out for instructional support for both lecturers and students, especially if EMI is marketed to host country or local students as a quick-fix for their L2 English, the kill-two-birds-with-one-stone of EMI language policy reasoning.

Block and Comas explain how where EMI is put in place in higher education “it is usually part of a broader internationalisation policy” and other complementary activities tend to appear simultaneously:

- the promotion of study abroad programs aimed at widening students’ linguistic and cultural horizons
- an explicit cross-curricular focus on the preparation of students for work in a global economy
- staff mobility in the form of stays abroad
- the incorporation of foreign teaching staff
- teaching in other countries and/or franchising courses
- and recruiting international students (both to enhance a university’s international credibility and to generate revenue)

(2017, 2, citing Byram 2012)

Baker and Hüttner’s recent mixed methods study of EMI in Austria, Thailand the UK compared data from a student questionnaire, interviews of students and lecturers, as well as documentary analysis and class observations, to provide a comparative, multisite data (2017). Not surprisingly, they found that EMI is not an “unambiguous, monolithic entity”, neither in terms of the “role given to (English) language as an explicit focus of instruction” nor regarding how language is conceptualised by stakeholders (2017, 1). Their data led them to distinguish between two broad modalities of EMI, excluding Anglophone-context programs:

- 1) student-mobility programs, incorporating “students from a variety of cultural and linguistic backgrounds, leading to the emergence of multiple, novel varieties of English (e.g., English as *lingua franca*)”
- 2) internationalisation at home programs, where “it is the curriculum for local students that is internationalised and delivered in locally emergent Englishes.” (Block & Comas, 2017, 2)

Block and Comas maintain that in Spanish HE, EMI tends to oscillate between the two modalities:

Thus, while we often find the reception and incorporation of students from a range of cultural and linguistic backgrounds and English used as a *lingua franca*, we also frequently encounter groups entirely composed of local students who presumably are benefitting from an ‘internationalised’ curriculum delivered in locally emergent Englishes. (2017, 2)

Arguably, these two scenarios exist in HE in France, where the last point could be modified from “in locally emergent Englishes” to “in a variety of accented Englishes”.

It is evident that the type of institutional context in which EMI occurs will influence the identities of teachers as well as students. A non-native English-speaking teacher (NNEST) entering a classroom in a French university, to find 25 L1 French students and four English-speaking students from around the world will not experience the same teaching and learning environment as the opposite (25 English-speaking international students and four L1 French students). This inevitably impacts on their identity. For example, in her 2018 study of teacher education programmes for EMI in Spain, Dafouz found lecturers felt that the EMI experience had given them a more international professional identity, yet felt ambiguous about how to cope with the responsibility of promoting disciplinary literacy in both Spanish and English. Ideally in this situation EMI teachers would collaborate with English teachers, in order to share their expertise. Yuan referred to such collaboration as boundary crossing, a critical

strategy, “increasingly becoming a norm in NNESTS’ professional lives” and which helps them to “move out of their comfort zone or isolated status, and embrace innovative thinking and ideas through interactions with other relevant stakeholders” (2018, 17). The spatial metaphors of expanding boundaries and comfort zones are common in study abroad literature (e.g., Hartwell & Ounoughi, 2019) and also echo Norton’s definition of identity as “how a person understands his or her relationship to the world, how that relationship is constructed across time and space, and how the person understands possibilities for the future” (2013, 45). Taillefer pleads for teachers in the English for Specific Purposes¹²² sector in France, to be accepted (instead of being marginalised) as playing a valuable role “as mediator in encouraging interdisciplinary reflection linking theory and effective practice.” (2013, 31), the end result being better pedagogical quality. This call is echoed by researchers in Spain, both by Block and Comas, who assert that there is “a need for a teacher development perspective on EMI, and more specifically a reflexive practice perspective” (2019, 14) and by Mancho-Barés and Arnó-Macià who, in their overview of EMI training programmes in Catalonia (2017), list three main needs which such training should address:

- (i) communication and specific purpose language use; meaning subject-specific language use as well as “classroom discourse, in both native and non-native-speaker contexts. Thus, training may provide lecturers with resources for increasing students’ attention and motivation, improving comprehension, and promoting interaction.”
- (ii) pedagogy and didactics; meaning “raising lecturers’ awareness of the fact that translating lectures is not enough and that students’ language level and needs should be considered.”
- (iii) multilingualism and multiculturalism, which are held to be “especially important in today’s multilingual/multicultural classes and the internationalised settings in which EMI takes place.” (2017, 270)

The latter cite their own 2015 study to say that in their context “EMI classes comprise mostly local students; this is because institutional policies promote EMI as a means to develop students’ language competence rather than from the real need for a *lingua franca*” (Arnó-Macià & Mancho-Barés, 2015, cited in Mancho-Barés & Arnó-Macià 2017, 270). More broadly, EMI programmes are promoted as a key factor in the internationalisation of European HE. In 2014, they had spread to account for 25% of postgraduate programmes in OECD countries (OECD, 2014). The most recent OECD report maintains that France attracted 9% of international students in 2018, higher than the OECD average of 6%. (OECD, 2020b, 4). It is safe to assume that despite the global pandemic internationalisation is not going to disappear from French universities, although physical campuses may see less diversity in the short-term¹²³. Interactions will continue to occur, and it will remain important to maximise the ease with which individuals can process the acoustic stream of speech, even more so in virtual, on-line interactions. That acoustic stream will continue to be phenomenally varied – linguistically and in terms of simple sound quality – and people will continue to react to speech marked by an Other accent.

Conclusion

Training in L2 pronunciation has been the focus of my research since 2008, when my first two publications about pronunciation came out, an article (*Towards intelligibility: Designing short pronunciation courses for advanced field experts*, AH2008_01) and a book chapter (*Short course focus on intelligibility: what type of progress is possible?*, AH2008_02). Both were based on conference

¹²² Commonly translated as *LANSAD* or *LANSOD*: Languages for Specialists of *Autres Disciplines/Other Disciplines*.

¹²³ The OECD report on France cautions: “The crisis may have a severe impact on the internationalisation of higher education [...]. France, with a higher share of international students than in total across the OECD, may be more strongly affected than other countries.” (2020b, 12)

presentations and I remember feeling quite awkward delivering the first, as I presented it at the GERAS¹²⁴; how did a talk devoted to pronunciation pedagogy fit into the wider remit of the GERAS and *Anglais de spécialité* in France? The second presentation, however, was at the Accents conference in Lodz, Poland – an entire, interdisciplinary, international conference devoted to the accents and varieties of English. My work seemed to fit there and that was where I met many of my current co-authors and co-researchers. In recent years my work has circled back to how to most effectively train speakers (teachers or students), now converging on EMI and including listeners in the training remit (Table 18):

Book Chapters	Frost, D. & A. Henderson. (for 2021) “The IP-CAFES project: reactions to foreign accented English academic discourse”. (AH2021_04)
	Henderson, A. & A. Rojczyk. (for 2021) “Foreign-language accent imitation: Matching production with perception”. (AH2021_02)
	Volin, J., Skarnitzl, R. & A. Henderson (2018) “Perceptual impact of foreign-accented speech”. (AH2018)
Journal Articles	Henderson, A. & R. Skarnitzl (for 2022). “ ‘A better me’: Using acoustically modified learner voices as models”. <i>Language Learning & Technology</i> , 26/1. (AH2022)
	Henderson, A. & A. Rojczyk (for 2021). “Exploiting foreign-language accent imitation in pronunciation instruction”. <i>Les Langues Modernes</i> , n°4. (AH2021_03)
	Henderson, A. & R. Cauldwell (2020). “Jungle listening: A course in decoding English for university students”. <i>ASp, la Revue du GERAS</i> , 77. (AH2020_02)
	Henderson, A. (2019). “Training for English-medium instruction in French higher education: Keeping pronunciation in focus”. <i>Recherche et pratiques pédagogiques en langues de spécialité</i> , 38(2). (AH2019)

Table 18: My recent publications, focusing on listener training

And while I am still trying to find how I fit in in France, doing this *Habilitation* has helped me to see that, once again, I can create the space I need for my research, I do not have to rely solely upon existing spaces. In other words, the *Habilitation* process has helped me to define my professional identity, which will be useful for potential PhD students as well as other peers for the rest of my academic career.

To conclude, as soon as we open our mouths, we flag individual and group identity/ties, implying membership or exclusion. This is a key issue in a globalised world, where the number of *potential* groups and identities has exploded, reflected in the poststructuralist conception of social identity as multiple and changeable. Identity can be multiple and permutations of potential exchanges are almost infinite. Despite the seemingly simple binary distinction and 2-column, 3-row table below, so much variation exists even within the categories “native speaker” or “non-native speaker” (Table19):

NS	NS
NS	NNS
NNS	NNS

Table 19: Possible types of interactions between NSs and NNSs

Nonetheless, not all interlocutors recognise or accept this plurality, preferring to anchor themselves to a singular norm – at least as an ideal. This mindset impacts on language learning on psychological (motivation) and sociological (investment) levels. Has this trickled down into the language classroom? What are teacher’s current practices, concerning accent and identity, and what are their needs? Moreover, as the researcher-teacher relationship works both ways, and as a socially anchored perspective on accented speech and identity gains ground among researchers in the francophone world, what insights will researchers be able to offer teachers at different levels in the French educational

¹²⁴ The GERAS (*Groupe de Recherches en Anglais de Spécialité*) is a national organisation in French whose acronym translates roughly to Research Group on English for specialised purposes.

system? Two upcoming events illustrate well how francophone researchers of spoken language are studying the Other from a variety of angles:

<p>May 2021, 2-day conference, Clermont-Ferrand http://communication-societes.uca.fr/article412.html</p>	<p>This international conference on accent – principally foreign, but also regional – pursues a fuller understanding of a theoretically and practically challenging linguistic, social and identity phenomenon:</p> <ul style="list-style-type: none"> • Linguistic, in that accent is foremost a characteristic of spoken language perceptible and perceived in various ways by the hearers/utterers concerned, according to their social and political context and their individual and collective, conscious or unconscious representations. • Social, in that being identifiable by accent as a foreigner or ‘different’ person marks – positively or negatively – that person’s daily life, which is spent in a linguistic space where their native language or languages is or are not dominant. • Identity, in that any change in country or region of residence has an impact on a person’s life story and implies an effort of adaptation. <p>Through pure and applied research conducted in different countries (see bibliography), the aim will be to explore the life experience and perception of foreign accent in France and elsewhere. Such research, involving truly cross-disciplinary approaches, can thus offer insight into otherness in the 21st century.</p>
<p>June 25, 2021, one-day conference, Université de Lorraine, Metz https://saesfrance.org/social-studies-of-the-english-language-in-france-and-the-french-speaking-world-journee-detudes-universite-de-lorraine-metz-25-juin-2021/</p>	<p>SSELF (Social Studies of the English Language in France and the French-speaking World)</p> <p>The <i>Langue et supports</i> axis of the IDEA research centre (EA 2338, Université de Lorraine) and the <i>Didactique des langues et sociolinguistique</i> team of the ATILF-CNRS (UMR 7118) are proud to announce the organisation of a one-day conference focused on social approaches to the study of English.</p> <p>English is perhaps the most widely-spoken, widely-taught and widely-researched language in the world. For these reasons, research centred on the English language has been fundamental to the development of sociolinguistics and related disciplines, as with many branches of linguistics and language sciences. From insight into the social stratification of linguistic variables (Labov 1972), to understanding of the way in which language intertwines with social communities and identity (Eckert 1989), via explorations as to how context is embedded in language (Gumperz 1982), studies focusing on English have played a key role in shaping the questions, methods and concepts of sociolinguistics and other disciplines that adopt a social approach to researching language.</p> <p>France, and the French-speaking world more generally, boast a similarly illustrious history. Studies by French-speaking scholars, both on the French language and on other linguistic forms, have contributed substantially to socially-based approaches in linguistic research. The key concepts of <i>pratique langagière</i> (Boutet et al. 1976) and linguistic marketplace (Bourdieu 1982) owe their existence to French-speaking scholars and work by French thinkers such as Bourdieu, Foucault and Derrida continues to underpin a multitude of socially-based studies of language across the globe. Similarly, the French-speaking world has been, and continues to be, a hotbed for work on different forms of interaction analysis and Conversation Analysis (see Traverso 2007) as well as critical approaches in sociolinguistics and linguistic anthropology (see Heller 2003).</p> <p>However, despite this pedigree, and the large number of linguists working on the English language in the French-speaking world, socially-based studies of English from the French-speaking world have been relatively few and far between. Such studies do exist, on topics such as the variation (Higgs 2004) and standardisation (Pillière and Lewis 2018) of English, sociophonetic aspects of certain varieties of English (Jauriberry 2016), English in contact with other languages (Forlot 2009; Martin 2017) or sociolinguistic elements of English learning in France (Wharton and Wolstenholme 2019). However, these studies tend to represent an exception rather than a rule. Though the reason for this situation is unclear, linguists of English working in the French-speaking world have tended to adopt other approaches or focus on objects of study that do not lend themselves easily to socially-based study. Consequently, social studies of English have a somewhat minority status in the French-speaking academic world.</p> <p>In response to this situation, this conference aims to create a forum that brings together researchers from France and the French-speaking world who adopt a socially-based approach to the study of the English language. Rather than proposing a specific topic or set of research questions, a shared social approach to English language research will be the federating element of the conference.[...]</p>

The research agenda regarding foreign-accented speech and identity is imposing. I feel fortunate to be both a researcher and a language teacher, which prompts me to favour the full integration of willing colleagues in pursuing that agenda, be it in terms of their own professional practices and identity, or those of their learners. Therefore, Part III focuses on the teaching implications for L2 English pronunciation teaching and learning. If intelligibility is accepted as the over-arching goal in the design of L2 English pronunciation instruction, what of comprehensibility, accentedness and acceptability? And identity issues? The complexity of teaching spoken English interaction must somehow be rendered feasible, or teachers will leave it aside in the rush to design lesson plans around what they judge to be both useful and teachable.

Part III: Implications for Training Speakers and Listeners

Most of my research since 2015¹²⁵ has focused on gathering different types of evidence of effective pronunciation teaching techniques, combining qualitative and quantitative data (Table 20):

<i>Year</i>	<i>Publication title</i>	<i>Broad Topic</i>	<i>Techniques, Tools & Methods</i>
2022	Exposing English pronunciation teacher cognition: Video-stimulated recall interviews	TP	corpus of filmed lessons + audio corpus of VSR interviews
2022	'A better me': Using acoustically modified learner voices as models	Uni-FAS + TP	teaching intervention + acoustic manipulations + perceptual measures + interview + participant feedback
2021	The IP-CAFES project: reactions to foreign accented English academic discourse	Uni-FAS + TP + DSL	description (+ corpus + acoustic manipulations + perceptual measures + teaching intervention + interview)
2021	Foreign-language accent imitation: Matching production with perception	TP	teaching intervention + perceptual measures + acoustic measures + participant feedback
2021	Exploiting foreign-language accent imitation in pronunciation instruction ¹²⁶	TP	teaching intervention + perceptual measures + acoustic measures + participant feedback
2020	Jungle listening: A course in decoding English for university students	Uni-FAS + TP	teaching intervention + participant feedback
2019	Training for English-medium instruction in French higher education: Keeping pronunciation in focus	Uni-FAS + TP	description & analysis
2018	Perceptions of foreign-accented lecture-style speech: Please take this seriously	Uni-FAS + TP	perceptual measures + acoustic measures + participant feedback
2015	Pronunciation in an EFL setting: What's going on inside and around European classrooms?	TP	survey
2015	Smoothie or fruit salad? Learners' descriptions of accents as windows to concept formation	TP	survey
2015	Say it again, please: English pronunciation exercises	TP	x

Table 20: Overview of my publications since 2015: Broad topics and Techniques, Tools & Methods. Explanation of column headings:

Broad Topic:

- Uni-FAS = foreign accented-speech in a university context;
- TP = teaching pronunciation;
- DSL = describing specialised language.

Techniques, Tools & Methods: description and/or analysis (of ideas, project, situation), teaching intervention, survey, interview, participant feedback (during A/V recording), corpus, perceptual measures, acoustic measures or manipulations.

¹²⁵ This excludes book reviews, even though writing book reviews of works dealing with pronunciation helped me to remain informed of current developments.

¹²⁶ The article for the journal *Langues Modernes* is in French: *Exploiter pédagogiquement l'imitation de l'accent d'une langue étrangère*.

One of my overarching research objectives is to counter a trend identified over 15 years ago by Levis, in his article on *Changing contexts and shifting paradigms in pronunciation teaching*:

To a large extent, pronunciation's importance has always been determined by ideology and intuition rather than research. Teachers have intuitively decided which features have the greatest effect on clarity and which are learnable in a classroom setting. Derwing and Munro (this issue), recognizing this tendency toward teacher intuition in determining classroom priorities, make an appeal for a carefully formulated research agenda to define how particular features actually affect speaker intelligibility. That such an appeal is needed suggests, in Derwing and Munro's words, that pronunciation "instructional materials and practices are still heavily influenced by common sense intuitive notions" and that such intuitions "cannot resolve many of the critical questions that face classroom instructors". (2005, 380)

The implications of research into intelligibility and identity, as examined in Part Two and with regard to training speakers and listeners, are thus explored in this Part. First, variation and priorities in L2 pronunciation instruction are addressed in section 5.1., after which I propose three key principles which should frame spoken language variation training that aims to improve intercultural communication in the university community. In the final section, I draw on the specificities of my context in France, to arrive at three phonodidactic principles which should guide the design of English pronunciation instruction.

5.1. Variation & priorities

In a simple world, English teachers would select one standardised form as a model for all learners, for pronunciation work as well as for listening work. Teaching materials would be based upon that one model and everyone would be exposed solely to that model. However, reality is much more complex because English is a 'pluri-national' rather than 'mono-national' language, which paradoxically means that it can be easier to 'pass' as a native speaker of another variety:

... even native speakers usually only have the vaguest ideas about the characteristics of other national varieties. [...] Thus, when I, as an ESL speaker, lived in the U.S., I was sometimes taken for an Irish speaker [...] and in Australia I am often taken to be an American. (Piller, 2002, 193)

This is important in terms of updating how the world of ELT is categorised, and the resulting impact on pedagogical decision-making. In his 2001 overview, McArthur attempts to "report and comment in broad terms on variation and institutionalization among world English(es), particularly in terms of standards and models for English language and teaching" (2001, 2-3). His overview includes definitions of numerous related terms (e.g., Global English, World Standard English) as well as salient citations from both the press and academic publications. He argues for the need to update the tripartite model (ENL-ESL-EFL) of English language expansion which grew out of 1960-70s thinking, explaining ten worldwide developments which reflect how the world is no longer as simple, and which contribute to increasing complexity:

- Multilingualism
- ENL variety
- The 'native' controversy
- The 'standard' controversy
- The problem of norms
- Issues relating to migration and education
- National ENL standardizing institutions

- National ESL standardizing institutions
- National ESL monitoring and planning procedures
- Issues relating to hybridization among language

McArthur was right to conclude that these forces would continue to tug English(es) in different directions, and to argue that “If there can be two national standards within one English, there can in principle be more than two” (2001, 10). He then raises the issue which plagues so many ELT professionals:

In the teaching and learning of English, although there must be some kind of programme for speech production and listening comprehension, the questions remain: How standardizable can pronunciation be (including the presentation of pronunciation in books)? And if it cannot in fact be standardized in a population at large, how can one kind of user of English (native or other) learn to understand all the others adequately and in turn be adequately understood by them? (2001, 11)

Variationist sociolinguistics answers by explicitly arguing for a new conceptualization of speaker competence which includes knowledge of variation:

... far from being a peripheral element, knowledge of variation is part of speaker competence. The implication of this position is that, in order to become fully proficient in the target language, second language learners also need to acquire native-speaker (NS) patterns of variation. (Bayley & Regan 2004, 325)

English teachers tend to encourage learners to aim for one variety (e.g., General American English or Standard Southern British English), especially in relation to pronunciation, and they tend to promote the standard variety, leaving non-standard yet native uses aside. However, in the real-world learner-listeners encounter several English sound systems, with individual speaker-specific as well as varietal factors affecting what they hear. The English teacher’s choice of which variety to use as a model is thus understandably quite complex and will be dealt with in more detail in the next eight sub-sections.

5.1.a. Choosing a model & teacher training

Given the issues related to intelligibility and identity (see Part II), it seems clear that for teachers to address variation in their pedagogical choices, they must query three levels:

- language: Which features are ‘worthwhile’ and ‘do-able’¹²⁷ in instructed language learning?
- cognitive process: What can the speaker’s brain cope with? What do their listeners’ brains need?
- social factors: What is appropriate to a given context/setting?

Teachers cannot do this unless they are trained and able to make informed decisions. Sadly, Thomson’s (2013) survey¹²⁸ of 58 North American English language teachers showed that, even those who had received some training in how to teach pronunciation were not sufficiently critical of statements about accent, e.g., “Only half of the ELTs were certain that a foreign accent was not a speech disorder” (230). The prevalence of such misconceptions confirms that

¹²⁷ These two adjectives are deliberately vague here, as detail is provided later.

¹²⁸ The survey included 131 items and asked participants to “evaluate belief statements or techniques taken verbatim from pronunciation teaching materials found on websites and in *YouTube* videos promoting pronunciation, accent reduction or accent modification services” (Thomson, 2013, 226).

the major obstacle to the modernising of English pronunciation teaching [...] has been the failure to **educate** teachers. That is, to provide teachers with the facts that will enable them to make informed decisions in their selection of pronunciation models, as opposed to **training** them to reproduce unquestioningly a restricted set of techniques. (Jenkins, 2000, 199, original emphasis)

The “unquestioned” default set of techniques is inherently tied to a dominant teaching approach, three of which are neatly summarised by Szpyra-Kozłowska in her critical comparison of EFL, ELF and what she terms NELF. The latter refers to Native English as a Lingua Franca and is presented as a compromise between ELF and EFL: “It is intended for foreign learners who wish to learn English in order to communicate in it with other speakers of this language, both native and non-native” (2015, 23-24). She argues that this is what most EFL teachers already actually do, being non-native speakers themselves and using a native model as a reference point – but without requiring perfect nativelike pronunciation – and focusing on “selected features of English which they consider particularly important for successful communication” (ibid., 27). With my English majors I favour a traditional EFL approach (NS model of pronunciation), whereas with my ESP students, my approach is essentially the NELF compromise (NS model for pronunciation but allowing for ‘selected’ L1 features which do not compromise intelligibility); with both I include perception work using a range of native and non-native varieties.

Szpyra-Kozłowska highlights the need for features to be selected from intelligibility research centred on specific groups of L1 speakers (2015, 28), which circles back to Jenkins’ plea for teacher education instead of just training – it is, after all, teachers who usually do the selecting. This means that teacher training must equip teachers to understand research, but it also means that researchers must make their findings accessible to teachers (see Levis, forthcoming in AH2021_01). For teachers without access to adequate formal training, numerous books exist (e.g., Celce-Murcia, 2010) and a recent book chapter is especially useful and easy-to-read, Przedlacka’s *An overview of phonetics for language teachers* (in Kang et al., 2018). Przedlacka insists that teachers need to keep up, not only with recent developments in research, but also changes in English speech, i.e., varieties of English:

Our choice serves essentially as a reference variety. Primarily, we teach a phonetic framework. [...] In other words, the model serves to point out the type of distinctions the students might not have in their L1. [...] while teaching the framework, we also demonstrate and teach a lot of phonetic detail. However, phonetic accuracy is usually neither the main focus of instruction nor required for successful communication. [...] A native-like pronunciation is never achieved by most L2 learners. [...] It is therefore important to take into account the immediate and long-term needs of our learners and set realistic goals. A model is a vehicle to teach syllable structure, connected speech phenomena and aspects of intonation crucial for intelligibility. If we do find time to focus on phonetic detail, a bigger concern is staying current with empirical research that signals instructional priorities. (2018, 54)

A focus on intelligibility underpins Przedlacka’s recommendation about ‘staying current’, even though there is an assumption of a teacher’s knowledge base in the contrastive L1-L2 comment: will all teachers know from experience that a particular contrast is or is not important for their learners? Or will they blindly try to teach all the contrasts which “students might not have”? Additionally, it seems unwise with adult learners to not devote time to explicitly addressing certain phonetic details, especially if intelligibility research specially related to the perception of French-accented English (in my context) pinpoints features as influential.

Szpyra-Kozłowska is also motivated by the Intelligibility Principle, yet emphasises the lack of empirical evidence to support a set of specific phonetic features as guaranteeing intelligibility for learners of EFL (2015). She comes to this conclusion after comparing four proposals for establishing pronunciation priorities: Jenkins’ (2000) *Lingua Franca Core*, Cruttenden’s (2008) *Amalgam English* and *International English*, and Collins and Mees’ (2003) *Error Ranking*. The list of features which she

arrives at, as “having a particularly important communicative value” for EFL learners includes the following:

- Preservation of word-initial consonant clusters;
- Preservation of the fortis-lenis distinction (phonetically expressed through voicing, vowel length or, in the case of plosives, aspiration);
- Rhotic pronunciation allowed;
- Preservation of consonantal contrasts with a high functional load (e.g., /b – v/, /f – h/, /l – n/, /l – r/, /ʃ – s/;
- Approximations of consonants allowed (of a slightly different place of articulation);
- Preservation of vocalic contrasts with a high functional load (e.g., /ɪ – i:/, /e – æ/, /ɜ: – ɑ:/, /ɒ – ʌ/;
- Preservation of the phonemic distinction between long and short vowels;
- Word stress;
- Nuclear stress.

(2015, 88-89)

Even having arrived at this list by analysing four detailed proposals, Szpyra-Kozłowska concludes that is impossible to determine valid pronunciation priorities which would be appropriate for all learners (90). And while this somewhat reduces the long list of features important for communicative success, its length precludes it being truly useful for most teachers.

5.1.b. An 'ELF-aware' approach

The representation of native speakers as a negative (or at least unjustified) influence seeps through much ELF-related work. For example, Walker uses the term ELF to designate:

... interaction between non-native speakers. This does not mean that ELF interaction, by definition, excludes native speakers. Statistically, however, the possibility of ELF interactions occurring in the absence of native speakers is far higher than that of them occurring in their presence. [...] What native speakers cannot do in ELF contexts is to impose their particular set of Native speaker norms. Nor can they expect the members of the ELF community to adjust to these norms. (2010, 24)

This poses quite a dilemma for teachers who are native English speakers; how could/should they adopt an “ELF-aware” approach? Should they modify their pronunciation to match the LFC? Or should they simply use the LFC to help them prioritise what they focus on in the classroom? And the tricky question remains of what to do about all those other varieties of English out there: how could they be handled? Should they be handled differently for production and reception? Should a native speaker target or model be completely abandoned?

In a 2019 interview, Jenkins confirmed that if a learner wants to strive for native-like pronunciation, the teacher should ask the learner to identify which natives, which features and for what reason. This is one way of exposing their meta-phonological awareness, while at the same time increasing their awareness of the social role(s) of language – and I wholeheartedly agree with such querying with adult learners. This fosters a set of skills in learners – and a core notion of flexibility – which will help them to deal with *future* variation, because nobody can foresee how English will evolve, esp. its pronunciation. This variation is inevitable and neither teachers nor learners can ignore

... the well-established sociolinguistic maxim that linguistic consistency is not normal and indeed would be dysfunctional in a language used in a real speech community. (Milroy, 1994, 25)

Fortunately, these are precisely the questions which have been dealt with in ELF work over the last ten years, especially in Walker's numerous articles in teachers' professional journals (thus, reaching teachers, not just researchers), but also in the work of Patsko, Deterding, and others. They have been instrumental in spreading practical classroom solutions, via their print publications, blogs, workshops, and webinars. For example, Part C of Walker's book "looks at activities aimed at improving both productive and receptive phonological accommodation skills" (2010, 96). Additionally, the notes that accompany Patsko's "LFC grid: Identifying areas of overlapping areas of likely difficulty in ELF intelligibility among different L1 backgrounds", pragmatically affirm that

if you're teaching and you notice something is causing a breakdown in communication between students, but it isn't represented on this grid, you can and should still address it! (2013, Appendix 1, MA thesis)

In a blog post she explains in detail how to use the grid for determining teaching priorities in a multilingual classroom.¹²⁹ Both exemplify "ELF 3", with its greater focus on what exactly can be done in classrooms, especially in a multilingual setting and with a tendency to teach accommodation skills.

On the whole, trying to untangle the various threads of the debate about ELF showed me that I agree with "ELF-ers" about the necessity of raising learners' awareness of – and openness to – variation and varieties of English, as well as the often-overlooked need to distinguish pronunciation work from listening work. We even draw upon some of the main sources, for example Cauldwell's 'jungle listening' work:

For optimum efficiency in ELF communication, it is not enough that speakers adjust their pronunciation. Listeners need to be more flexible in interpreting what they hear. By doing so, they will be able to deal more comfortably with the variations in accent that are characteristic of ELF. (Walker, 2010, 95-96)

Here Walker is referring specifically to variations in accent. He disagrees with Cauldwell (personal communication, April 2020) about the importance of working on the details of the sound substance, arguing that this is only relevant if a learner is going to interact mainly with native speakers, which is the opposite of the NNS-NNS interactions which ELF focuses on in his definition. It is noteworthy, however, that Walker implies that *all* speakers will need to adjust, so native speakers should specifically seek to reduce their (unhelpful) use of the co-articulatory speech processes which Cauldwell analyses. And yet, this begs the question of the extent to which English can be spoken without unstressed syllables and without reduced vowels, crucial for maintaining English's rhythm. While different varieties of English modify their realization of the strong-weak rhythm of English, this alternation remains a basic feature of all varieties.¹³⁰ One response would be to explicitly address our relationship to accents as part of training, whether of teachers – as advocated by the Baratta (2017, 2018) and Dupouy (2019) – or of students.

5.1.c. A diglossic approach

English is not the only language to have more than one standard variety in numerous nations yet remain a language in which individuals can successfully communicate. For example, a very brief look at recent work on Norwegian is edifying:

¹²⁹ <https://elfpron.wordpress.com/2013/12/08/elf-in-a-multilingual-class-finding-common-needs/>

¹³⁰ Cruttenden does mention two exceptions: "Some varieties of English, notably Caribbean English as an L1 and Indian English as an L2, are marked by a much lesser use of reduced syllables, and hence the rhythm is nearer to that traditionally labelled 'syllable-timed'" (2001, 251).

In contrast to many other languages, Norwegian does not have a standard pronunciation. In their everyday use of the language, people speak their own dialect. Since these can be very different, you will have to learn to understand all of them when you learn Norwegian. So it is very useful to take the listening exercises for all the dialects in CALST. But you can choose one dialect which you want to learn to speak. This may be the dialect of the region where you are living, or often foreigners learn the Oslo dialect which is spoken by the largest group of Norwegians.

This is the reply to a FAQ (*Why does CALST offer different dialects for Norwegian?*) on the web site for the Computer Assisted Listening and Speaking Tutor (CALST), developed by Jürgen Koreman.¹³¹ This on-line HVPT tool is sensitive to its social environment, presenting exercises for British English but also for the four Norwegian dialects (Østlandet, Vestlandet, Trøndelag and North Norway).¹³² Given the history and the language policy of the country, it would be restrictive for foreign learners of Norwegian to be capable of functioning in only one dialect and only one region. This requires policy makers to acknowledge that total competence (across all skills) is unnecessary; one dialect for speaking, but several dialects for listening competence. It is a technological response to a social reality:

Foreign learners of Norwegian must learn to *speak* one variant of Norwegian, but they must be able to *understand* many different variants to become communicatively effective language users. (Koreman et al., 2013)

At the start of CALST work, the declared social aim was “integration in academic studies, job market, social life” (Koreman et al., 2009). Respecting the constraints of this reality beyond the classroom, they have distinguished between having one model for speaking and accepting the reality of diverse varieties for listening. This example echoes not only Cauldwell’s call for one model for pronunciation work and another for listening work (2013), it also supports my pedagogical decision to use the *English Pronunciation in Use* books, to expose my learners’ ears to the variety of Englishes – while simultaneously presenting one model for pronunciation work.

5.1.d. A contextually appropriate approach

In Part II Section 2, I argued that ELF is insufficient as a teaching approach for my ESP students, even though intelligibility and comprehensibility orient my teaching goals for them. As Levis pointed out:

intelligibility is context-sensitive, and a set of learners in one context will need certain features that learners in another context do not. Because of this context-dependence, principles are important in making decisions about what and how to teach pronunciation. (2018, 239)

In addition to the Intelligibility and the Nativeness Principles, comprehensibility and acceptability (i.e., native speaker tolerance) should influence teaching objectives, with acceptability being especially relevant when learners will interact with native speakers:

Teachers should selectively correct those errors for which native speakers have the least tolerance, rather than attempt to correct all errors, no errors, or only a few errors in random fashion. (Piazza, 1980, 426)

But if listeners both native and non-native, and with diverse L1 backgrounds, are to receive as much attention as speakers when training is designed, then acceptability needs to carry as much weight as

¹³¹ <https://www.ntnu.edu/isl/calst> and https://www.youtube.com/watch?v=NeKx6YR_RBs

¹³² Moreover, its spin-off company founded in 2017, <https://www.capeesh.com/>, proports to “reduce health and safety risks” as well as promote corporate identity: “your employees learn the language they will hear, speak and read at work. This helps to promote your company culture throughout your organization.”

comprehensibility. Comprehensibility is a perception of how easy it is to process speech (e.g., the listener expresses a perceptual judgment on a Likert scale) or it is measured as a reaction time where longer processing time is equated with lower comprehensibility. Could listeners be trained to be aware of potential subconscious bias, to explicitly see what they find (un)acceptable, and would such awareness help to prevent or to ‘salvage’ some miscommunications? In other words, could listeners be trained to remain open to variation, so that the indexical processing does not impinge upon the linguistic processing?

Acceptability judgments also interact with the frequency of occurrence of a feature. To take an example from written language, most modern English dictionaries now include corpus-based data to decide on new entries and to determine a hierarchy of definitions based on frequency of occurrence.¹³³ But frequent usage is neither a sufficient nor necessary condition for acceptability and the reverse is (particularly) true in FAS; the fact that a form is acceptable does not guarantee it will be frequently used. Certain FAS pronunciations could be acceptable but rarely used (e.g., /ðɪz/ for ‘this’), or unacceptable (stigmatised) in many contexts yet frequently used (e.g., /dɪs/ for ‘this’). If frequency of use potentially interacts with acceptability judgments, it is possible to imagine that listeners could find accented pronunciations acceptable if they were more frequently exposed to them. For example, before a mobility abroad or at the start of a predominantly EMI-format degree programme, students could be trained not only to cope more effectively with FAS on a cognitive level, but such training could also improve their tolerance toward it. After all, as Gatbonton says:

It is possible that only a few specific features of a language take on the role of a sociolinguistic variable (Labov 1972b), one that is manipulated for social purposes (of expressing identity or making class differences) or noticeably affected by social factors. (2011, 201)

So while /ð/ is a sociolinguistic marker for Francophone speakers of English in Quebec, as Gatbonton’s research found, future work should look at other variables, for example /h/ (see Trofimovich & John, 2011) and I would suggest in other contexts as well. For example, in terms of what is salient for my learners in France, when my students imitate native English speakers who are learning French and speaking it with a heavy accent, they rarely ‘play’ with /h/ (e.g., *haricots*, *dehors*) but almost inevitably use an alveolar approximant /r/ or spontaneously produce diphthongs /eɪ/, /əʊ/ or /oʊ/ (see AH2021_02, _03). The glottal fricative does not seem to be immediately salient in their representation of the English phonemic inventory.

This specificity of context involves going beyond the sound system of the dominant L1 of a teaching context, i.e., of Polish for Szpyra-Kozłowska, of French for me. Notably, Szpyra-Kozłowska differentiates between global and local errors, the latter being “seriously deformed words” (2015, 92). She argues that, in its focus on global errors (“recurring mispronunciation of foreign sounds and prosodies which create a foreign accent and result mainly from L1 phonological and phonetic transfer”, 93), intelligibility research has ignored the powerful impact of local errors, these “idiosyncratic mispronunciations of individual words” (93). Instead of looking solely at segmental contrasts and prosodic aspects, specific lexical units must also be considered. Sobkowiak did just this in his 2004 *English phonetics for Poles: A resource book for learners and teachers*, presenting a lexical criterion of value specifically for Polish students of English. He used electronic dictionaries to develop wordlists of several thousand English words, grouped according to phonetic, grammatical and frequency criteria. He explains how local errors impact single words, e.g., *nowhere* pronounced *now+here*. The error is local because it does not impact other similar words such as *elsewhere* or even *where* (2004, 23). When the

¹³³ See <https://www.macmillandictionary.com/corpus.html> and Hanks, P. (2012). Corpus evidence and electronic lexicography. In S. Granger & M. Paquot (Eds.), *Electronic lexicography*.

error can re-appear in numerous other words, it becomes a global error; it would thus be ‘good value for money’ to correct global errors. As Sobkowiak explains:

It is global pronunciation errors that give foreign speech the easily noticeable ‘accent’, i.e., non-native quality. On the other hand, these errors, exactly because they are so salient, are also most easily noticed and remedied. Some local errors may go unnoticed for years, simply because they happen to be tied to words which are relatively rare. (ibid.)

Most pronunciation exercises, therefore, tend to ignore infrequent, idiosyncratic local errors and yet these could potentially be crucial in specialised contexts, which abound in rare terminology carrying key meaning.

ESP classrooms lend themselves almost naturally to focused pronunciation work on words which might involve ‘local’ errors. Field-specific terminology (by definition rare in general corpora) needs to be exchanged successfully between professionals, e.g., *few wode vs fuel rod*, or *pitch vs peach*. While these words may not be frequent in everyday conversations, their frequency of occurrence is arguably higher in conversations between professionals. At the moment, research-based evidence does not provide enough information on this, but it could be imagined as coming from specialised oral corpora, involving a variety of professional interactions (e.g., the tour of the plant, an explanation of replacement equipment or new processes) and between interlocutors of different L1s and different professional status (e.g., the French consultant engineer and the Japanese site technician). In addition to this call for specialised corpora work, it is also necessary to respect the specificity of L1 French speakers’ English, as with the L1 Polish examples described here.

5.1.e. *Chicken vs egg: segmentals & suprasegmentals*

The segmental vs. suprasegmentals debate is also subject to contextual factors. This dichotomy is not central to the intelligibility debate, not only because they usually work in combination, but also because, as Szpyra-Kozłowska so aptly explains, so much depends on the learners’ mother tongue:

It is impossible to generalize as to which of the two phonetic aspects of English, segmental or suprasegmental, is more important since this largely depends on the degree of similarity/difference between the learners’ mother tongue and English. If segments are similar, but suprasegmentals are very different, then the latter will be the major source of learning difficulty and intelligibility problems. The opposite is true as well. (2015, 113)

Ample empirical evidence is presented by Szpyra-Kozłowska and another oft-cited study concurs about the interplay between the two: Zielinski’s 2008 study found reduced intelligibility due to syllable stress patterns and the pronunciation of segments in strong syllables (2008), confirming the importance of segmentals pronounced in the stressed syllables. Another example is Kang et al.’s study, which found evidence of the influence of listeners’ L1 on the types of features affecting their global judgments of speech:

The results of multiple regression analyses indicated that sentence stress was the most salient predictor of global perceptual judgments for American and Arabic listeners, whereas the consonant related variable most significantly predicted their global judgment scores when Vietnamese listeners rated the Vietnamese accented speech. (2016, 14)

When segmentals are compared to one another, research on the learning of L2 segmentals has shown that English vowels are more difficult than consonants. For example, in their study of Slavic¹³⁴ and Mandarin speaking immigrants to Canada, Munro and Derwing found that after one year in the

¹³⁴ Mainly Russian and Ukrainian speakers, with one Croatian.

country, and without any pronunciation training in their ESL classes, the learners still had trouble with English vowels, with the greatest improvements made at the start and some between-group differences on individual vowels (2008). Furthermore, and again without direct instruction, L2 Dutch learners from 14 different L1s showed less improvement in the intelligibility of their vowels than their consonants (Neri, Cucchiari & Strik, 2006).

The conclusion that vowels contribute more than consonants to the intelligibility of words (Bent, Bradlow & Smith, 2007¹³⁵), may explain why Thomson initially chose to orient his HVPT work on vowels¹³⁶. In fact, Thomson seems almost to have been responding to Broersma and Cutler in their 2008 article *Phantom word activation in L2*, when they intimate that L2 listening difficulties will be better understood as research provides better explanations of activation and competition processes in L2 lexical processing. They seem to describe the development of precisely the sort of tool Thomson has created in *English Accent Coach*:

... it is important to bear in mind that a learner's knowledge of a given word is not the same as ability to recognize it accurately or confidently when it occurs in speech (and to reject, as L1 listeners would, minimally different near-words). Accurate identification of true realisations of the same words in different possible contexts is one potential training route. (2008, 31)

Also converging on the issue is Cauldwell's work on the phonology of listening and his powerful garden/jungle metaphor, which provides a framework for exposing learners to the variety of 'sound shapes' for a given word (2013, 2018). While Cauldwell's approach has not yet been tested in a controlled, experimental format, HVPT has been, and every study has shown improvement in vowels (Thomson, 2018a, 215). This is exceptionally rare in any field of research measuring the impact of interventions.

Learning to speak and listen to a language involves developing a solid new phonemic inventory in another language, and that requires exposure to variability. EFL classes do not tend to provide intensive highly variable input via naturalistic settings,¹³⁷ as a sole language teacher provides low variability. HVPT applications could provide 'higher' variability (See section 3.4.a. *Cognitive aspects*), while unstructured 'higher' variability could be encountered on-line, via streamed TV series or films, podcasts, etc. However, "unconstrained variability may be counter-productive" according to Thomson (2018a, 219). He cites evidence from a study of learners trying to master Chinese tonal contrasts, who found it quite hard to deal with several talkers in one session.

However, when they blocked each training session by a single talker, introducing new talkers session-by-session, low perceptual aptitude learners performed as well as high perceptual aptitude learners. Critically, high perceptual aptitude learners performed equally well whether talkers varied within sessions or only across sessions. (2018, 219)

This echoes Gao et al.'s (2013) findings regarding the impact on learning via foreign-accented speech, where L1 Chinese students listened to multiple Indian-accented English speakers. Sentence comprehension was measured, as well as translation accuracy and cognitive load self-ratings. Perceptual learning was facilitated by multiple talkers for the more proficient English learners, whereas less proficient learners learned better in the single-speaker condition.

¹³⁵ All of the participants in their study were L1 Mandarin Chinese speakers but had different spoken English proficiency levels, which may have influenced the results.

¹³⁶ For example, the 2012 mobile app provided "mobile English vowel pronunciation training using a Simon-like memory game interface", whereas now the EAC web site includes consonants. (Thomson, 2012).

¹³⁷ While it can be argued that it is easier to experience passive exposure via on-line sources (see Sockett's 2014 book, *The online informal learning of English*), the impact is not the same as live, active exchanges with another human being (although arguably the latter occurs in gaming environments).

To conclude, segmentals and suprasegmentals interact to varying degrees, with vowels being recognised as more important than consonants for intelligibility. However, the issue of ‘intelligible for whom?’ arises again in relation to the impact of listener proficiency levels, confirming that listener traits must be included in the equation when making claims about the relative weight of segmentals or suprasegmentals.

5.1.f. Limitations of functional load

The quest for a purely objective means of prioritising segmentals in L2 English pronunciation instruction is not new, so before looking at suprasegmentals, this sub-section looks at the well-known criterion of functional load, particularly its limitations.

Brown’s oft-quoted article *Functional load and the teaching of pronunciation* (1988) applies a longstanding,¹³⁸ statistical concept of linguistic analysis to such prioritising, by placing “phonemic contrasts along a continuum of importance” (602). As teaching time is limited, this implies that more pedagogical attention be given to important contrasts, instead of equal attention being spread thinly over all possible contrasts – even though pronunciation exercise books might try to cover all of them. Brown summarises previous definitions and various ways FL has been calculated, before explaining 12 factors which contribute to calculating FL, the third one being the only mention of social aspects of usage (*stigmatisation in native accents*):

1. Cumulative frequency
2. Probability of occurrence
3. Occurrence and stigmatisation in native accents
4. Acoustic similarity
5. Structural distribution of phonemes
6. Lexical sets
7. Number of minimal pairs
8. Number of minimal pairs belonging to the same part of speech
9. Number of inflections of minimal pairs (he calculated in terms of lexemes instead of individual items)
10. Frequency of members of minimal pairs
11. Number of common contexts in which members of minimal pairs occur
12. Phonetic similarity

Of these 12, he attributes most importance to cumulative frequency (n°1) and a high number of minimal pairs (n°7), and the least importance to probability of occurrence (n°2) and occurrence and stigmatisation in native accents (n°3). He then calculates the FL for 9 pairs of RP phonemes which are often difficult for learners, with 10 representing maximal importance and 1 minimal importance in the resulting table, reproduced below (Table 21):¹³⁹

Vowels		Consonants	
	/e æ/		/p b/
	/æ ʌ/		/p f/
10	/æ ɒ/	10	/m n/
	/ʌ ɒ/		/n l/
	/ɔ: əʊ/		/l r/
	/e ɪ/		/f h/
9	/e eɪ/	9	/t d/
	/ɑ: aɪ/		/k g/
	/ɜ: əʊ/		

¹³⁸ Functional load was already mentioned by the Prague School in the late 1920s as well as in 1955 by Martinet, for example, in *Économie des changements phonétiques: Traité de phonologie diachronique*.

¹³⁹ This table is frequently reproduced, as here, in publications, e.g., Qian et al. (2018).

Vowels		Consonants	
8	/i: ɪ/	8	/w v/ /s z/ /b v/
7	-	7	/f v/ /ð z/ /s ʃ/
6	/ɔ: ɜ:/ /ʊ əʊ/	6	/v ð/ /s ʒ/ /θ ð/
5	/ɑ: ʌ/ /ɔ: ɒ/ /ɜ: ʌ/	5	/θ s/ /ð d/ /z dʒ/ /n ŋ/
4	/e eə/ /æ ɑ:/	4	/θ t/
3	/ɑ: ɒ/ /ɔ: ʊ/ /ɜ: e/ /i: ɪə/ /ɑ: aʊ/ /u: ʊ/	3	/tʃ dʒ/ /tʃ ʃ/ /ʃ ʒ/ /j ʒ/
2	/ɪə eə/	2	/f θ/ /dʒ j/
1	/ɔ: ɔɪ/ /u: ʊə/	1	

Table 21: Rank ordering of RP phoneme pairs commonly conflated by learners (Brown, 1988, 604)

It is interesting at this stage to compare Brown's ranking with two other well-known sources, regarding their recommendations of segmentals to include in a pronunciation syllabus for L1 French learners of English, in order to see just how limited such information is (Table 22): the features identified by Swan and Smith in *Learner English*¹⁴⁰ and those recommended in Hancock's 2003 *English pronunciation in use* (1st ed.). Swan and Smith is included as a commonly cited reference on ELT training courses – as it was on my MEd TESOL at the University of Manchester – and because it continues to be cited in quite recent research (see for example Qian et al., 2018).

¹⁴⁰ Swan and Smith only mention contrasting pairs under their tables for vowels and consonant phonemes, where "Shaded phonemes have equivalents or near equivalents in French and should therefore be perceived and articulated without serious difficulty, although some confusions may still arise. Unshaded phonemes may cause problems." (2001, 53), including diphthongs, as they "may be pronounced with equal force and length on the two elements" (54).

Brown 1988: FL of RP contrasts, 1=low, 10=high	Swan & Smith, <i>Learner English</i> , “problematical” for L1 French	Hancock, Section A units “you could leave out”/not worry about ¹⁴¹	Hancock, Section A, other units, assumed useful	Hancock, Section D, “probably be useful” (for listening ¹⁴²)
<i>Vowels</i>				
/eɪ æ/ X /æ e/ 10	/æ e/		/eɪ/, /æ/	/æ e/
/ə ɪ/ X /æ ʌ/ 10	/æ ʌ/		/ə/, /ɪ/	/æ ʌ/
/aɪ ɪ/ X /æ ɑ:/ 4	/æ ɑ:/		/aɪ/, /ɪ/	/æ ɑ:/
		/ɑ:(r)/, /eə(r)/		
/eɪ e/ 9 /ɪ i:/ 8	/ɪ i:/			/eɪ e/ /ɪ i:/
/ɒ ʌ/ 10 /əʊ ɒ/ 6 /əʊ ɔ:/ 10	/əʊ ɔ:/		/əʊ/, /ɒ/	/əʊ ɔ:/
/ʊ u:/ 3 /ɜ:(r) ɔ:(r)/ 6 /ʌ ɜ:/ 5	/ʊ u:/ /ʌ ɜ:/		/ɜ:(r)/, /ɔ:(r)/	/ʊ u:/ /ʌ ɜ:/
X		/ɑ:(r)/, /eə(r)/		
X		/ɔɪ/, /aʊ/		
/ʊ u:/ 3			/ʌ/, /ʊ/, /u:/	
<i>Consonants</i>				
/b p/ 10 /s z/ 8		/b/, /p/ /s/, /z/		/b p/ /s z/
/θ ð/ 5 /s θ/ 5	/s θ/		/θ/, /ð/	/s θ/
/z ð/ 7 /d t/ 9	/z ð/		/θ/, /ð/	/z ð/
/d t/ 9 /t θ/ 4 /d ð/ 5	/t θ/ /d ð/	/d/, /t/	/θ/, /ð/ /θ/, /ð/	/d t/ /t θ/ /d ð/
/f v/ 7 /f θ/ 1 /v ð/ 6	/f θ/ /v ð/	/f/, /v/	/θ/, /ð/ /θ/, /ð/	/f v/ /f θ/ /v ð/
/g k/ 9 X	/h/, Ø	/g/, /k/	/h/, /w/, /j/	/h/, Ø
/ʃ ʃ/ 2 /ʃ dʒ/ 3 /ʃ ʃ/ 2	/ʃ ʃ/ /dʒ ʒ/		/ʃ/, /dʒ/, /ʃ/	/ʃ ʃ/ /ʃ dʒ/
/m n/ 10 /n ŋ/ 5		/m/, /n/, /ŋ/		
/l r/ 10	dark & clear /l/ /r/		/l/, /r/	
			Cs at start of syllables	
	Final-ism as /s/ + devoiced /m/ Final -le as /əl/		3 units: Cs at end of syllables; plural & other -s; past tense	

Table 22: Comparison of segmental features recommended for an L1 French learner pronunciation syllabus

¹⁴² Finally, Hancock (2003) explains the purpose of Section D “Sound pairs”: “If you have problems in hearing the difference between individual sounds in Section A of the book, you will be directed to one of the exercises in this section.” (2003, 141). This section involves explicit ear training and learners are “encouraged to select from these according to their own needs.” (2003, 7).

In the table, X or **bold** indicates features (e.g., /j/) which are mentioned in Hancock or Swan and Smith, but for which Brown did not list a functional load calculation because:

It is theoretically possible to calculate the functional loads of all contrastive permutations of the phonemes of RP English: 276 permutations for the consonants and 190 for the vowels. However, the vast majority of these calculated functional loads will be of no value for our present purpose. (1988, 601-602)¹⁴³

This is a contrastive analysis table, thus based on the Nateness Principle and aiming at error prediction, so the first two columns have descriptive value. Therefore, if I were a non-French speaking English teacher and I had only this information to determine pronunciation priorities for L1 French speakers, I would be able to list problematical segmental contrasts: nine vowel contrasts (six of which have a high FL ranking), dental and glottal fricatives, affricates, dark vs clear /l/. Ranking them in decreasing order of FL gives (Table 23):

	Vowels	Consonants
10	/æ e/	dark & clear /l/
	/æ ʌ/	
	/ɒ ʌ/	
	/əʊ ɔ:/	
9	/eɪ e/	-
8	/ɪ i:/	-
7	-	/z ð/
6	-	/v ð/
5	/ʌ ɜ:/	/s θ/
4	/æ ɑ:/	/t θ/, /d ð/
3	/ʊ u:/	
2		/tʃ ʃ/
1		/f θ/

Table 23: Rank ordering of phonemic contrasts, combining those identified by Brown and by Swan & Smith as problematical for native French speakers

If I prioritised the teaching of segmentals based solely on this information, dark and light /l/ would be of great importance and dental fricatives would be of medium FL importance. However, I would be missing contrasts which teaching experience reveal to be quite relevant, (/tʃ dʒ/, /dʒ ʒ/, /h ø/, /r R/, /r w/ and the diphthong /əʊ / often replaced by the monophthongs /ɒ ʌ/), especially with university students doing specific degree programmes, e.g., nuclear engineering and the term *fuel rod* realised as /fəʊwəʊd/. By ‘relevant’ I mean that errors with such pairs have caused me (a NS) to misunderstand the learner, which has led me to categorise that error as important for comprehensibility and/or intelligibility. To conclude, simply being on this list as “problematical” does not mean that a contrast will always be difficult for all learners to hear or produce – and even more importantly, it does not mean that realising the contrast will always be necessary for effective communication with native and non-native speakers of English.

Pedagogically the value of this ranking is further compromised because it includes no indication of teachability or learnability, nor does it provide information about the impact of features or contrasts

¹⁴² Finally, Hancock (2003) explains the purpose of Section D “Sound pairs”: “If you have problems in hearing the difference between individual sounds in Section A of the book, you will be directed to one of the exercises in this section.” (2003, 141). This section involves explicit ear training and learners are “encouraged to select from these according to their own needs.” (2003, 7).

¹⁴³ “The 24 consonant phonemes of RP English are multiplied by 23, since a consonant cannot contrast with itself. This figure is divided by 2 because any contrast, for example, /p/ versus /b/, is the same as its reverse, /b/ versus /p/. Thus, 24 X 23 - 2 = 276. For the 20 vowel phonemes of RP English, the calculation is 20 X 19 + 2 = 190.” (1988, 601-602).

on processing, comprehensibility, intelligibility or acceptability. Thus, while such grid creation could conceivably be integrated into the very beginning stages of syllabus planning, it does not help teachers to prioritise in ways that are socially appropriate for their learners or context. In accordance with the Intelligibility Principle, linguistic features are just a starting point:

[...] advance knowledge of errors is unhelpful in prioritising phonological structures in an instructional programme that aims at intelligibility. Rather, the mere fact that a phonological structure poses difficulty for a learner says nothing about whether it is actually worth teaching or whether it can even be taught. (Munro & Derwing, 2011, 317)

Determining the ‘worth’ or value of a segmental for pronunciation teaching requires us to take into account three broad aspects:

- its functional load, including its frequency of occurrence within a specific field (e.g., food science) or its impact on the realization of a specific discourse object (e.g., a lecture);
- its impact on listeners (both their speech processing and attitudinal reactions);
- its teachability and learnability.

In other words, it is crucial that pronunciation teachers look beyond linguistic features when making pedagogical decisions. Does this mean that there will be too many possible permutations to be able to generalise? Must teachers and learners deal separately with each potential interactional pairing, e.g., conversations in English between a Brazilian Portuguese L1 speaker and a Turkish L1 speaker, or with a French L1 or Japanese L1 speaker? This would seem unmanageable.

The answer for Brown is that, while no all-purpose syllabus can be developed for pronunciation instruction, the higher the FL, the more time a teacher should spend on the contrast. However, it is puzzling that for Brown ‘occurrence and stigmatisation in native accents’ should be of least importance, even though he explains that:

The conflation of /u:, ʊ/ is widespread in Scotland; /ɪə eə/ conflation is an increasingly common phenomenon in New Zealand, the West Indies, and East Anglia; and the /ð d/ conflation is found, if only sporadically, in the Republic of Ireland, although it is heavily stigmatized. We may conclude that listeners are accustomed to making the perceptual adjustment necessary for intelligibility of these conflations, but not for the others. (1988, 598)

Given that listeners listen to – and judge differently – native and non-native speakers, surely listeners’ presumed habits alone cannot provide sufficient justification here. The combined, relative weighting given to factors is more important, as in the example of /e æ/: “Both phonemes occur frequently, are distinct in all native accents of English, and give rise to numerous minimal pairs” (1988, 603), so more teaching attention should be devoted to this contrast as a “greater potential barrier to intelligibility” than to /u: ʊ/ (ibid.). Brown explains how he determined his final weighting, to produce his table of rank ordering. He concludes by suggesting a three-part procedure for teachers (1988, 603):

- 1) “Determine which particular phonemic conflations are made by the particular group of students being taught,” relying on what is noticeably problematical and what minimal pair exercises reveal;
- 2) Use the Rank Ordering table to identify the relative importance of each contrast;
- 3) Dedicate more pronunciation teaching time to the conflations of relatively greater FL.

This three-step procedure is incomplete, as listeners, teachability and learnability are not considered. Moreover, suprasegmentals defy rank ordering yet are essential to effective communication.

5.1.g. Acknowledging English suprasegmentals

A pronunciation syllabus cannot be based solely on segmentals; even the LFC, which is dominated by segmentals, includes some suprasegmentals. As FL cannot be calculated for suprasegmentals, language teachers need other sources beyond their own intuitions to guide their choices, including listener judgements of nativeness, comprehensibility, intelligibility or acceptability in relation to prosodic features. For example, Boula de Mareüil and Vieru-Dimulescu found that “prosody is important in identifying Spanish-accented Italian and Italian-accented Spanish.” (2006, 247). And in a study of Spanish learners of Dutch, the listeners could assess nativeness based on the pitch accent distributions used to mark focus (van Maastricht et al., 2016) – a trait Dutch has in common with English; they also rated non-native speech as more difficult to understand, but the authors attribute this partially to the non-natives’ speech rate rather than their prominence patterns. Their findings lead them to argue that it is not yet clear which to focus on pedagogically, because

... at least some prosodic features might not be as relevant to successful communication in the L2 as previously expected. Depending on the objectives (e.g., reducing a foreign accent vs. successful communication), aptitude, motivation of the L2 learner, this particular prosodic feature might be excluded from a didactic method in favour of cues that are more relevant to intelligibility for L1 listeners, such as acquiring fluency in the L2 (i.e., increasing the speech rate) or adequate pronunciation of certain L2 segments that may not be characteristic of the L1. (2016, 32)

The overall pronunciation objectives reflect the underlying paradigms (Nativeness: ‘reducing a foreign accent’ vs Intelligibility/‘successful communication’) and pleads for pedagogical decisions to also integrate learner characteristics. The authors also note that different combinations of L1s and L2s are likely

to result in different types of transfer effects, which in turn may be (ir)relevant for perception (see van Maastricht et al., 2016). Finally, the manipulation of a combination of prosodic features ... may also shed more light on which (segmental and/or) suprasegmental cues contribute most to accentedness, comprehensibility, nativeness and intelligibility. (2016, 32)

Furthermore Caspers and Horloza (2012) conclude that “segmental and prosodic deviations should not be viewed as independent factors in processing non-native speech” (abstract line, p94). They find “no support for the view that suprasegmental errors – i.e., stress position errors – are generally more harmful to intelligibility than segmental errors, nor for the opposite” (p102).

As made clear in Part II, intelligibility does not exist in a social void, and the related issue of acceptability cannot be ignored. In light of the social contextualisation of spoken exchanges, two further factors must be taken into account. First, accent is characterised by segmentals at the conscious level. For example, when students are asked, for example, “Does this sound more American or British?”, most spontaneously mention rhotic <r> as a salient feature of American English and some comment that /oo/ sounds more American than /əʊ/.¹⁴⁴ Not only do they hear these features, they can also explicitly label them as American or British. Similarly, Derwing et al. (2002) found that a majority of 100 adult ESL students identified individual segments as their pronunciation problem, but this was not always an accurate assessment. Because it is exceptionally difficult to accurately hear one’s own pronunciation – despite what we might believe and are able to say about it – English language teachers have an ethical obligation to raise learner awareness of stigmatised accent traits and to help them to avoid them in their speech.

¹⁴⁴ Based on unpublished survey results which I collected annually over five years among 1st and 2nd year English majors and ESP students, at the start of the academic year.

Second, the needs and reactions of listeners cannot be ignored, especially given their subconscious reactions to prosody. Cruttenden includes rhythm, accent and intonation in his list of “high priority” characteristics of basic English pronunciation; “the cohesive and attitudinal implications of intonation become increasingly important if a high level of achievement is desired” (2001, 301). Chun has published extensively on this issue (see 1988, 1998, 2002), arguing in favour of using signal analysis software to teach intonation (1998) because of intonation’s crucial contribution to communicative competence and proficiency (1988). She points to the root of the problem as being that acoustic phonetic analyses and discourse-level linguistic analyses constitute “two areas of linguistics that have often been placed on opposite sides of the continuum in terms of the scope of their respective domains” (1998, 65).¹⁴⁵

Beyond the propositional signposting which intonation provides, intonation also helps listeners to identify a speaker’s stance, via attitudinal shading. And while it might be “virtually impossible to provide cast-iron rules” for attitudinal, grammatical or discursive uses of tones (Jenkins, 2000, 44), prosody nonetheless has crucial *subconscious* effects on listeners. Extensive research, especially in perceptual experiments (see Levis, 2018, 241-242) and Implicit Association Tests, has shown prosody’s subconscious impact on listeners (both native and non-native), in terms of how well they understand a production as well as the characteristics they automatically assign to speakers based on prosody. For example, by using more varied intonation, Korean ITAs in the United States received more favourable ratings of teacher competence, status and solidarity (Lindemann & Clower, 2020), because such variation signals – and motivates – interest in a topic. Caspers and Horloza conclude that “More research into the effects of non-native prosody on intelligibility and processability on a higher level (sentence accent) is necessary” (2012, 104).

Gilbert’s Prosody Pyramid quite usefully focuses attention on the “interrelatedness” of segmentals and suprasegmentals, with a visual (Figure 4) illustrating “the framework of a larger system that uses all these individual elements to make speakers’ ideas clear and understandable to their listeners” (2008, 1):

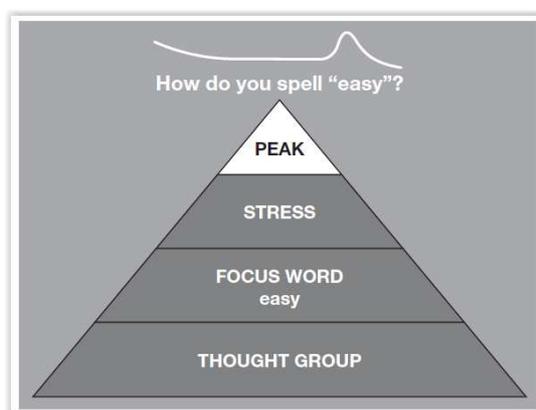


Figure 4: The Prosody Pyramid (Gilbert, 2008, 19)

¹⁴⁵ This quote is part of Chun’s broader argument, concerning principles for designing intonation teaching software. She briefly explains how computers have made it possible for learners to visualize intonation contours since the 1970s and how such hard- and software has become more and more accessible : “At the same time, in the subfield of applied linguistics, the pedagogical goals with regard to pronunciation and intonation teaching have been focusing increasingly on discourse-level phenomena. It is therefore an appropriate time to integrate two areas of linguistics that have often been placed on opposite ends of the continuum in terms of the scope of their respective domains: acoustic phonetic analyses, on the one hand, have traditionally dealt with individual vowels and consonants, whereas discourse-level linguistic analyses, on the other hand, have been concerned with entire texts and discourses.” (1998, 65).

It is based on the degree to which each feature/level of the pyramid contributes to easy communication, with the greatest contribution coming from chunking, pausing and intonation, i.e., the base of the pyramid. The peak vowel in the stressed syllable of the focus word of a thought group is the vowel where it is most important either to have nativelike pronunciation or at least to clearly articulate a distinct vowel within one's vowel space. As such, it is a useful tool to help teachers prioritise English pronunciation features in training speakers and listeners. In teaching a variety of learners, I have always found it quite teachable – and effective for learners – to start by having them notice and identify thought group boundaries, and then to identify the word and the syllable where the tone begins to be modified. This raises their awareness that “tone units are the building blocks out of which all spoken communication is constructed” (Brazil, 1994, 3) and that individual sounds should be approached via tone units because “sounds are affected by the intonational shape of the stretch of speech they occur in” (3-4). Using the pyramid metaphor and illustration also seems to work well in English teacher training as a simple framework for prioritising, and yet at least two interrelated questions arise:

- Is the pyramid universally applicable? Does it adequately represent the interrelationships of levels in other languages which learners might have (L1, L2, L3, ...)?
- What happens if we are aiming at a diverse range the listeners? i.e., the “intelligibility for whom” issue (Szypra-Kozłowska, 2015, 115). Which aspects are more language-specific in relation to intelligibility? If my learners had a different L1, would the pyramid best represent the aspects crucial for intelligibility?

Research needs to explore the finer details of prosodic features and their (combined or separate) impacts on intelligibility, in diverse combinations of L1 and L2 speakers and listeners,¹⁴⁶ as highlighted by research referred to earlier on Spanish-accented Italian, Italian-accented Spanish, Spanish learners of Dutch. Another example, concerning the impact of on F0 and duration on accentedness and intelligibility, is Winters and Grantham O'Brien's (2013) study with three groups of listeners: 26 monolingual English natives, English natives studying German in Canada (4) and in (31) Germany, and 50 native German listeners. Their findings confirm the independence of accentedness and intelligibility as constructs:

In addition, this study makes several new contributions to the growing body of knowledge on the roles that listener background and segmental vs. prosodic cues play in the perception of accentedness and intelligibility in L2 speech. Importantly, our approach revealed that segmental cues contribute more to perceived accentedness in L2 speech than prosodic cues do. Furthermore, we found that non-native duration and intonation cues contribute equally to perceived accentedness—even though non-native intonation patterns reduce intelligibility more than non-native duration cues do. This combination of effects provides yet another example of results from accentedness and intelligibility tasks diverging from one another, and, in turn, provides further motivation for why research into the intelligibility of L2 speech needs to be carried out in addition to—and independently of—research on perceived accentedness. (504)

And finally, concerning comprehensibility, Levis and Levis (2018) found that explicit instruction on contrastive stress resulted in modified spontaneous speech in intermediate learners, and their speech was

¹⁴⁶ See Winters and Grantham O'Brien for a similar plea: “Future research on this topic will benefit from investigating pairings of languages that are typologically and prosodically more distinct from one another. Several of the results of this study seemed to be best accounted for by appealing to the characteristic prosodic differences between English and German; however, the prosodic differences between these two languages may be more quantitative than structural. Precisely controlling differences in accent placement or phrasal structure between languages may yield clearer differences in the perceptual interpretation of F0- and duration-transplanted sentences.” (2013, 505).

judged by native L1 English listeners to be significantly more comprehensible. Kang et al. (2016) found a high correlation between prosodic features and overall comprehensibility scores. To conclude, recent research is providing more specific, detailed evidence regarding the role of suprasegmentals. However, in terms of teaching it is still not clear how best to prioritise and sequence.

5.1.h. Sequencing features & exercise types

In many English language textbooks, pronunciation features have been sequenced starting with segmentals and followed by prosodic features. This ‘bottom-up’ approach contrasts sharply with the ‘top-down’ approach advocated by many Anglophone researchers (e.g., Munro and Derwing, 1995; Derwing & Rossiter, 2003; Field 2005). In a comparative study of French and Polish secondary school textbooks and workbooks, we found that segmentals are the focus of only a quarter of all pronunciation exercises (AH2014_03). However, unpublished data from that study, on *primary* school textbooks, showed overwhelming dominance of segmental exercises. Szpyra-Kozłowska describes recent ELF-related developments swinging back to a ‘bottom-up’ approach, and the resulting dilemma for EFL learners who would like to communicate with both native and non-native English speakers:

In recent years, mostly under the influence of Jenkins (2000) and her claims concerning the vital role of segments and the negligible contribution of prosody to intelligibility in international contexts, another shift in phonodidactic practices can be noted towards prioritising segments over suprasegmentals (e.g., Walker, 2011). (2015, 111)

The reversal could seem justified by the fact that native and non-native listeners process speech differently (see Section 3.4.a. *Cognitive aspects*, citing Cutler, 2000/1). However, despite these language-specific processes by which listeners process spoken language, non-native listeners are capable of adapting just like native listeners; they, too, “have the capacity to adjust, revise and develop their existing representations when exposed to systematic and novel deviations from familiar linguistic regularities.” (Saito et al., 2019, 1148). Here I would argue that this swing back and forth is caused by a tendency in pronunciation instruction (not L2 pronunciation research) for listeners to be neglected – their role, needs, responsibility, and potential to adapt. This concurs with Cauldwell’s plea that a distinction be made between the choice of model(s) for pronunciation work and for listening work.

Somehow the fact that communication involves interaction has been side-lined.¹⁴⁷ For example, Gilbert’s Prosody Pyramid is a powerful and useful structuring visual for adult learners of English, who can see how prosody is the foundation of spoken English, and it can also help teachers to sequence features. It implies that working on the base is most likely to improve a speaker’s intelligibility with many and diverse listeners. Yet, it is very much focused on how to sequence exercises which help a speaker master a feature. Another useful schematisation also seems to focus on speakers: Celce-Murcia et al.’s (2010) communicative framework for teaching English pronunciation. This helps teachers to see how to sequence exercise types but not features. Unlike Gilbert’s pyramid, it is not specific to English features and so could be used with (and for) other languages. It shows how to work with any given feature along a continuum of communicative difficulty and yet, it is very much focused on the speaker’s needs: what type of exercise will most help the speaker to master a feature? I have modified the continuum of ‘communicativeness’ to include aspects of risk and creative freedom, so that one moves from a focus on form with low risk and little freedom to the more creative and free focus on meaning (Table 24):

¹⁴⁷ Despite interaction being listed, in the Common European Reference Framework for Languages (2001), as a category under both communicative activities and communicative strategies. <https://www.coe.int/en/web/common-european-framework-reference-languages/the-cefr-descriptors>

Risk/freedom; Form/meaning	Original label (Celce-Murcia et al.)	Explanation of exercise type & Examples of instructions (Celce-Murcia et al.)
<i>low risk, little freedom</i> <i>focus on form</i>  <i>high risk, great freedom</i> <i>focus on meaning</i>	Description & analysis	Oral & written descriptions of how the feature is produced & when it occurs within spoken discourse <i>(to illustrate how/when a feature occurs)</i>
	Listening discrimination	Focused listening practice on learners' ability to correctly discriminate the feature <i>(to correctly discriminate a feature)</i>
	Controlled practice	Focus on highlighted feature in order to raise learner consciousness, e.g., oral reading of minimal pair sentences, short dialogues, etc. reading aloud <i>(to raise consciousness of a feature)</i>
	Guided practice	Learner monitors for the specified features, e.g., structured communication exercises, information-gaps, cued dialogues, etc. <i>(to allow monitoring of a feature's form)</i>
	Communicative practice	Learner attends to both form & content, less structured, fluency-building, e.g., role play, problem solving <i>(to allow monitoring of form & content)</i>

Table 24: Continuum for Sequencing Exercise Types, adapted from Celce-Murcia et al.'s Communicative Framework for Teaching English Pronunciation (2010, 45).

For example, Description & analysis exercises are quite “low risk” because learners do not speak at all, whereas truly communicative exercises provide more latitude for creativity and freedom with both form and meaning, and thus are “high risk”. Used in teacher training workshops across Europe, this modified table has proved helpful in making teachers aware of – or reminding them of – the affective factors which they can control for in syllabus design, beyond the linguistic factors. Once teachers have analysed exercises from the different levels, they realise that they can ‘do’ pronunciation teaching even if they do not master the IPA. As such, it can boost teachers’ professional identity. Unlike Gilbert’s pyramid, it is not specific to English and so could be used with (and for) other languages. However, even this aid lacks an explicit focus on listeners.

5.2. Key principles for training speakers & listeners

This section presents principles which should underlie speaker and listener training, to improve:

- speakers’ ability to notice and work on their pronunciation;
- listeners’ ability to comfortably process FAS;
- speaker and listener attitudes to variation.

In this I join Hutchinson and Waters in seeing course design (L2 pronunciation for me, ESP for them) as negotiated and dynamic, and as being characterised by three approaches (See Part I, 2.2. *A tree & a trip*): language centred, skills centred, or learning (not learner) centred. They stress that the choice of target is *not unimportant*, as it “has a determining influence on the possible routes” (1987, 72), so

although learners choose their route and their speed of travel (to some extent), learners cannot be the sole focus of the learning process.

5.2.a. Awareness of interactional context

To improve training for intercultural communication in the university community, communication must be conceptualised as a two-way street, involving a shared communicative responsibility. Consequently, instead of focusing solely upon pronunciation features which speakers struggle with, training must acknowledge listeners to be equal partners in communication, and train them to no longer be the silent partner, to use Zielinski’s expression (2008). Recent work by Lindemann and Clower (2020), on the impact of native language and of pitch variation on ratings of status, solidarity, comprehensibility and teacher competence, confirms the need to recognise the role played by listeners in spoken interactions, here particularly between American undergraduate students and Korean graduate students working as ITAs. Underlying such a training programme is a contextualised spoken language perspective, such as that modelled by Abou-Haidar’s holistic perspective toward orality in French as a Foreign Language teaching, as shown below (Figure 5):

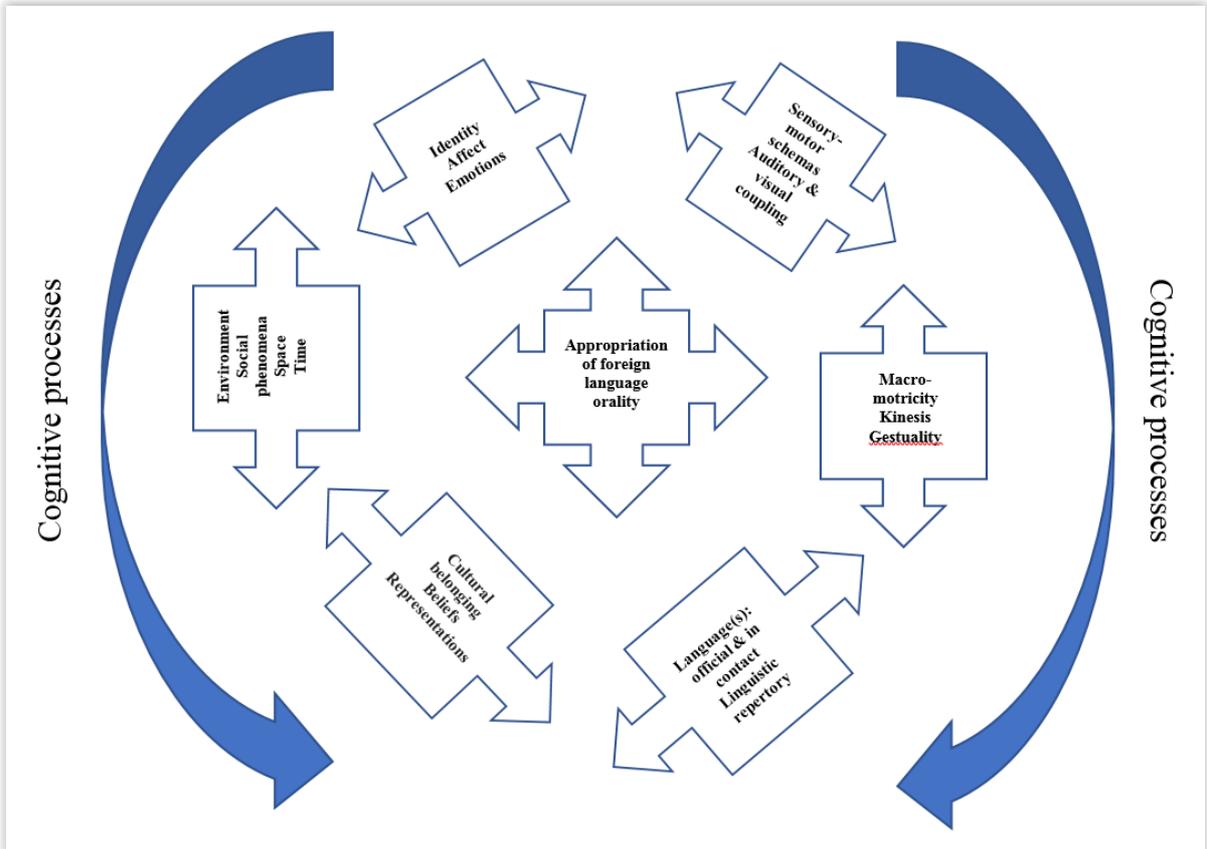


Figure 5: Translation of Abou-Haidar’s holistic perspective toward orality in French as a Foreign Language teaching (2018, 147).

Bradlow’s conceptualisation of real-world speech communication under adverse conditions explicitly includes accented speech (2013), and could be seen as providing useful detail for the “Cognitive processes” outer ring of Abou-Haidar’s figure, in reference to cognitive processing of the acoustic signal (Figure 6):

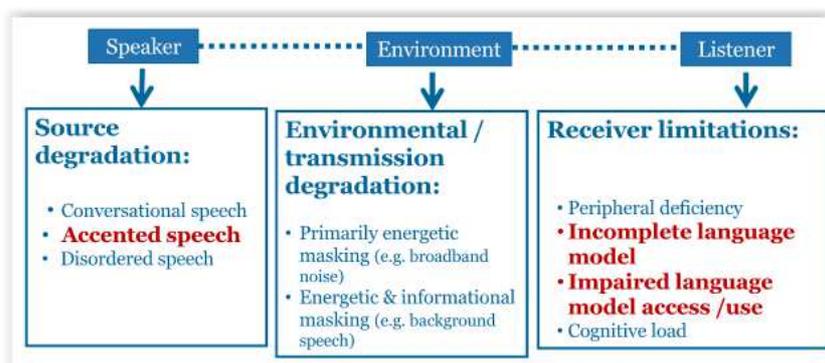


Figure 6: Sources of adverse conditions affecting speech communication in real-world settings (Bradlow, 2013, citing Mattys et al., 2012)

This interaction between speech processing and the social environment is neatly illustrated by the oft-cited 1990 study by Rubin and Smith. In their study, the limited exposure of American undergraduate students to people with other accents or from other ethnic groups influenced their expectations, and thus perceptions, of speech. The authors say, however, that it is natural that they confused “oriental ethnicity with accentedness; they do not come from communities in which numbers of first-, second, and third- generation Asian Americans speak Standard American English as a matter of course” (349). Specifically designed training could mediate this, especially as correlational results from the same study showed that:

... those with the most exposure to NNSTAs were least likely to believe that being taught by an NNSTA had hurt their grades. It appears that the more often students have sat in classes with NNSTAs the more satisfied they were with their instruction and the more skilled they became at listening to accented speech. (1990, 250)

As expectations influence perception, which in turn influences behaviour, surely well-designed training could speed up the process of change in listeners’ expectations – or, as with HVPT, speed up the adaptation process and their actual ability to decipher FAS. Furthermore, the authors imply that a future study could test causal directionality, to see whether the highest listening comprehension scores when listening to accented English would come from students who had taken the greatest number of courses with non-native ITAs (349-350).

More recent evidence supporting this connection comes from a 2015 study by Babel and Russell, examining expectations and speech intelligibility of White Canadian and Chinese Canadian native speakers of English. Their results show that listeners’ perceptions of accentedness “are not exclusively related to the speech stream. [...] Listeners’ ability to parse phonetic variability is partially determined by non-acoustic factors.” (2383). Their listeners’ experiences in multilingual and multicultural urban environments led them to

... develop internal models of linguistic awareness and knowledge based on their experiences, real and imagined, with individuals in the world, and they track the social characteristics of those individuals. The associations of linguistic knowledge and social traits are used, for better or worse, to parse and assess the incoming speech stream (2832).

Such results serve as a reminder that pronunciation training must be accompanied by listener training, to address this link between the speech stream and social indexing.

5.2.b. Awareness of accommodation skills

Speech accommodation theory, as part of the larger communication accommodation theory proposed by Giles et al. (1991), attempts to show how the dynamics of speech could be understood from

a social psychological perspective, e.g., why people change their speech style in specific social encounters and how the social environment impacts upon those choices. The theory posits two main processes. In convergence, interlocutors become more similar in an exchange, adapting their behaviours, e.g., speech rate, gestures, lexical choices, and reducing the social differences between themselves. This may be conscious but is often wholly subconscious. The opposite, divergence, occurs when interlocutors emphasise the differences. Both are inherently bound up with identity stance and related issues and, as such, are quite pertinent to interactions involving foreign-accented speech.

One illustration of how native speakers fail to accommodate a variety of co-interlocutors is the example of a frustrated Japanese executive who wrote to the *International Herald Tribune*, to complain of how native Anglo-American friends unintentionally “abuse their privilege”:

I strongly request that staff members of Anglo-American international organizations not stick to their hometown’s brand of English. Native English speakers who are international civil servants cannot fulfil their international responsibilities if they speak as if they were addressing only fellow natives.¹⁴⁸ (Kiyoi, cited in McArthur, 2001, 10)

She goes on to mention the importance of socio-pragmatic aspects of communication:

There are also good manners that go along with a cosmopolitan English: not monopolizing the floor, giving equal opportunity to usually silent non-natives and refraining from interrupting non-natives when they do speak. (cited in McArthur, 2001, 10)

These are basic socio-pragmatic skills which can be explicitly taught. Similarly, teachers who have worked with internationally diverse student bodies have witnessed how students interpret silence differently, how certain students never seem to be able to get a word in, etc. Moyer makes an argument for ITAs to be trained in such socio-pragmatic aspects but also to accept that direct negotiation with listeners may be needed:

Pickering therefore advocates overt training on the discursive and pedagogical effects of tone so that ITAs can develop a style in line with US educational practice, given that the cultural divide in teaching style exacerbates the comprehensibility issue. ITAs must negotiate a new identity through interaction with their students, sometimes addressing the comprehensibility issue head-on. (Moyer, 2013, 119)

This raises the issue of responsibility, or ‘ownership’ of the problem, of miscommunications or difficulties. Derwing and Munro (2009) devote an entire section to the concept of listener responsibility in their article, *Putting accent in its place: Rethinking obstacles to communication*. They describe how familiarity instruction can help people who “because of their limited experience interacting with L2 speakers, lack confidence in their own abilities to communicate, and therefore avoid situations where they need to talk with L2 speakers” (487). They summarise the results of their training¹⁴⁹ of social workers working within a Vietnamese community in Canada, who “were more confident at the end of the study and much more willing to interact with L2 speakers” (487). One of the exercises used with the Accent Instruction group inverted the usual order of things, asking participants to ‘predict how a Vietnamese speaker might produce certain words’, focusing on production in order to improve perception. This is very similar to the foreign language accent imitation technique which we used in a recent study (AH2021_02, _03), asking L1 French students to imitate the speech of a native English speaker who was learning French. While the production results were only partly successful (acoustic

¹⁴⁸ Published as ‘Dear English speakers: Please drop the dialects’, *IHT*, November 3, 1995.

¹⁴⁹ A detailed explanation is provided in their 2015 book *Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research* (145-147).

analyses), the perceptual results were quite significant, with the majority of 235 native and non-native listeners being ‘fooled’ by the imitations. A corollary (yet equally important) result, was the satisfaction the students expressed in realizing how they could successfully modify their pronunciation, well enough to fool listeners.

It would be interesting to combine foreign accent imitation with interactive alignment, as part of a replication of the intervention used in two forthcoming publications (AH2021_02, _03). Trofimovich (2016) presents interactive alignment as a well-researched phenomenon which can be explicitly used as a teaching tool, as part of “a teacher-friendly view of L2 pronunciation learning”.¹⁵⁰ He and his colleagues designed communicative activities for learners in a Canadian EAP class, integrating multiple-instances of three- and four-syllable words which are often difficult to learners to stress correctly:

It was hoped that L2 interlocutors would produce a target stress pattern more frequently after their interlocutor produced one than when their interlocutor had not produced an accurate stress. This is precisely what was observed. [...] these findings indicate that collaborative tasks seeded with instances of targeted pronunciation patterns appear to be successful in providing practice opportunities for learners. (ibid., 416-17)

He further argues that it is a powerful tool not just as a means to “resolve and avoid, communication breakdowns, particularly when a lack of intelligibility compromises smooth and efficient communication” (417), but also because it “gives input an important role in L2 pronunciation learning, especially its quantity and variability (e.g., Thomson, 2012). Indeed, learners should be capable of aligning not just to a single speaker (e.g., their teacher)” (417). Their speech processing and their pronunciation could both be improved, which could in turn change the way they view accented speech, because “Learners’ pronunciation issues might not only be caused by students’ but also by teachers’ lack of awareness in functional features of L2 speech and their relationship with listeners’ perception” (see Kang et al., 2016, 16).

Rubin and Smith essentially recommended intercultural communication skills, and particularly speech accommodation skills, when they called for the university community to establish training programs “that focus on undergraduate attitudes and listening skills as well as on NNSTA competence” (1990, 337). Thirty-five years later their call is reiterated by Derwing and Munro, who conclude their book with “directions for larger society”, reaffirming that:

Communicative success depends on the skills, attitudes, and expectations of all parties in the interaction. [...] As the world becomes smaller, and as societies become increasingly diverse, the need for awareness raising and social change becomes greater than ever. One place to start is the provision of some initial listening training in pre-service programming for teachers, social workers and others whose future careers will bring them into regular contact with L2 users. (2015, 172)

To conclude, this section has circled back to the notion of variation as a part of speaker competence (Hansen Edwards, 2008, 216), and I argue that it also be included in listener competence. Given the plethora of Englishes which exist, and the vast (but not infinite) number of permutations (L1a speaker + L1d listener, L1a speaker + L2f listener, ...), I agree with Szypra-Kozłowska that solutions should be specific to L1 groups of learners. Her NELF proposal maintains a native speaker model at the centre, and prioritises pronunciation teaching

¹⁵⁰ He also argues that adopting an interactive alignment perspective could help us to investigate the pedagogical potential of repetition activities, making them more palatable to learners (419).

... on the basis of native speakers' reactions to foreign-accented English. Note that this is a far more realistic enterprise than intelligibility research involving countless pairings of various L1 versions of English, which differ also depending on the learner's level of language proficiency (2015, 115).

Despite her focus on native linguistic norms of correctness, her compromise solution nonetheless seems more appropriate for my teaching context for two reasons. First, it recognises the pluri-national reality of English, in that it encourages "exposure to both native and non-native varieties for comprehension" (28). Second, it seems to acknowledge the stubborn, default setting of 'native is best' in my learners' representations of English and English pronunciation, promoting "imitation/approximation of native models" yet in consultation with intelligibility research (28). Here I would add acceptability research as well, most of which remains to be carried out; being intelligible is of limited value if one's speech is stigmatised or ridiculed.

5.2.c. Awareness of difficulties as different to errors

In instructed foreign language learning, difficulties only become errors when they conflict with the learner's or the teacher's vision of "success" as derived from the underlying principle: speech which is intelligible and thus promotes "successful" communication (an Intelligibility-based perspective), vs the "success" of passing as a native speaker (a Nativeness-based view). Unfortunately, predicting L2 learners' pronunciation difficulties is not something we do very well:

Not well enough to offer anything more than weakly relevant information to teachers. This is true enough when classrooms are homogeneous with respect to L1, but when classes are linguistically diverse, the value of error prediction decreases still further. (Munro, 2018b, 278).

Munro explains that a reliance upon linguistically based lists of common errors is insufficient as a basis for prioritising pronunciation instruction, because of what he terms the false *assumption of uniformity* and the *assumption of equal gravity*. Concerning the first, L2 phonetic learning is influenced by numerous nonlinguistic variables, the impact of which vary among individuals; learning is never the same experience across individuals. The second assumption has also been debunked, given that "some errors are far more detrimental to communication than others" (2018b, 277-78). Munro goes on to conclude that "our best strategy is to leave our fascination with error prediction behind" (2018b, 278), encouraging teachers and learners to exert conscious agency.

Nonetheless, language teachers understandably want to be able to predict what difficulties learners will face, in order to best prepare to help them meet those challenges. Learners usually see errors as a source of embarrassment to be avoided, despite any constructivist attempts to frame errors as opportunities to better understand how to move forward. Interlanguage theory also views language learning as a process and posits interlocutors' conscious agency. Errors or mistakes are a part of that process, with the learner's L1 influencing that learning (interference). In my teaching experience, while teachers and learners can be slow to accept this *process* rather than *product* orientation – as well as the inevitability and usefulness of errors – the change of perspective can be reassuring, motivating, and even empowering.

The socio-constructivist view of pronunciation learning and teaching promoted by most of the researchers cited in Part II emphasises that acquiring and using the pronunciation of another language is necessarily situated, as it is constructed and mobilised by using language in interaction with others (Lantolf, 2005; Vygotsky & Cole, 1978). This view tends to be reflected in intelligibility-oriented pronunciation instruction, and yet, in French higher education Levis' Nativeness and Intelligibility Principles co-exist. I argue that it would be counter-productive to insist exclusively upon one or the other. The Intelligibility Principle has its origins in ESL contexts but I have used it for an EFL context, without equating it to EIL or ELF, because I cannot exclude the specificities of my context: it does not

seem unreasonable to assume that English majors will be likely to target and invest effort in attaining nativelike pronunciation, whereas Food Science or Psychology students (ESP students) may be more likely to target intelligible pronunciation (while perhaps simultaneously labouring under the pressure of an Ideal Self with more nativelike pronunciation). This seems entirely logical, as students with a non-language major simply do not have as much time in a normal week to devote solely to language work, regardless of their motivation level. Independently of their major, in a predominantly monocentric EFL context such as mine, students usually share a native language with their peers – and quite often with their teachers – and therefore in reality they tend “to converge towards second language (L2) pronunciation that is heavily influenced by the L1” (Levis, 2005, 371). Furthermore, the Nativeness Principle continues to influence many of the teachers charged with organizing their instruction, whether other English teachers or field experts who manage the timetabling of classes. For example, in several English teacher training sessions I have noticed that dental fricatives continue to receive a disproportionate amount of attention, even when the learners are non-English majors of intermediate proficiency level. To conclude, wishing does not make things so, but change is possible.

5.3. Phonodidactic guidelines for L1 French learners

5.3.a. Being a phonodidactician in France

Szpyra-Kozłowska coined the semantically transparent term *phonodidactics*, which is “synonymous with pronunciation pedagogy or pronunciation teaching [...] and combines phonetics and phonology in one word” (2015, xi). This conveniently allows me to, in turn, create the expression phonodidactician, to label my professional identity. With my Master of Education in TOEFL, my PhD in English for Specific Purposes, my IPA certificate and years of teaching and researching pronunciation, I am a specialist in language didactics and pedagogy, particularly concerning English pronunciation. Simultaneously, even though I am not a trained phonetician, I have a set of skills and a knowledge base which allow me to communicate with phoneticians and access their research. However, I admit that phonodidactician is an awkward label in English and it is conceptually awkward within the French university system, where one is either a linguist or a didactician.¹⁵¹ This may be on the verge of changing.

In the past decade, France has begun to produce research into L2 pronunciation *teaching* of both English and French, as distinct from theoretical research from its long-standing, internationally renowned community of phoneticians and linguists e.g., research groups in Paris and Aix-Marseille being perhaps the most widely known (but not the only) active hubs. Some of the L2 pronunciation teaching research has been directly related to ESP contexts (Brudermann, 2010; Diana, 2010; Frost, 2008; AH2019; AH2008_01, _02;) while one recent self-defined ‘position paper’ lobbies for a “more interdisciplinary perspective between the fields of Spoken Language Processing and Second Language Education” (Detey et al., 2016, 15), and strives to insert corpus phonology into educational applications. Other researchers address broader epistemological or didactic issues. For example, a 2019 issue of the

¹⁵¹ As explained in the Call for Papers by Sauvage and Billières: "Si la phonologie comparée des langues et la formation à la phonétique (phonétique corrective notamment) existent bien dans les offres de formation didactique (la plupart des masters FLE / DLE propose au moins un cours de didactique de la phonétique / phonologie), les postes académiques d'enseignants-chercheurs explicitement fléchés sur l'articulation de ces domaines restent peu nombreux. Force est de constater qu'aujourd'hui encore, et depuis Callamand (1982), **on est soit phonéticien, soit didacticien**. Cette articulation compliquée s'explique par l'histoire de ces cinquante dernières années. Nous insisterons notamment sur ce qui nous apparaît comme une crise (Vygotski, 1926), à savoir l'opposition des courants structuraliste et socio-pragmatique dans les années 1970-80. La phonétique / phonologie des langues comme discipline est devenue (est toujours ?) trop structuraliste pour la didactique des langues telle qu'elle s'est développée jusqu'à aujourd'hui." (<https://journals.openedition.org/rdlc/2334>)

French journal *Recherches en didactique des langues et des cultures : Les cahiers de l'ACEDLE* was devoted to the current situation and future directions of teaching foreign language phonetics.¹⁵² The contributions highlighted current foci within France, as can be seen by the Table of Contents¹⁵³ listed below (Table 25):

<i>Authors</i>	<i>Article title</i>	<i>Target language</i>
J. Sauvage & M. Billières	Teaching the phonetics of a foreign language: Results & prospects	-
C. Weber	Epistemological issues around orality: Which paradigm for tomorrow's pronunciation didactics?	-
J. Sauvage	Phonetics & didactics: An unnatural marriage	FFL ¹⁵⁴
G. Miras	From correction to mediation: The terminological doxa in the pronunciation didactics of French as a foreign language (FFL)	FFL
A. Falkert	The role of variation in FLE pronunciation teaching: Realities & perspectives	FFL
M. Didelot, et al.	Teaching and assessing pronunciation today: The challenge of intelligibility	FFL
P. Martin	Teaching intonation in FFL today	FFL
C. Abel	Further education in pronunciation didactics: A means to overcome methodological quarrels?	FFL ¹⁵⁵
C. Lodovici-David & C. Berger	Reading texts aloud as awareness-raising for oral specificities: A continuum for working on interactional skills and phonetics	FFL
F. Santiago	Theory, research & didactics of L2 prosody and intonation: New perspectives	FFL
D. Chabanal & F. Mourier	The cognitive aspect of corrective phonetics: An exemplar-based approach (Lexical memory and frequency: New challenges for pronunciation didactics)	FFL ¹⁵⁶
O. Nocaudie et al.	Today's oral, tomorrow's orality: Where does corrective phonetics come into all this?	FFL

Table 25: Titles of articles from a 2019 French journal issue devoted to teaching foreign language phonetics

¹⁵² I was unable to contribute as my efforts at that time were focused on changing institutions, in order to obtain my current post where it is easier to do research.

¹⁵³ The original titles in French are as follows:

- J. Sauvage & M. Billières: *Enseigner la phonétique d'une langue étrangère: Bilan et perspectives*
- C. Weber: *Interrogations épistémologiques autour de l'oralité: Quel paradigme pour la didactique de la prononciation de demain ?*
- J. Sauvage: *Phonétique et didactique: Un mariage contre-nature*
- G. Miras: *De la correction à la médiation : la doxa terminologique en didactique de la prononciation du français comme langue étrangère*
- Falkert: *La place de la variation dans l'enseignement de la phonétique en FLE: Réalités et perspectives*
- M. Didelot et al.: *Enseignement et évaluation de la prononciation aujourd'hui : l'intelligibilité comme enjeu*
- P. Martin: *Enseignement de l'intonation en FLE aujourd'hui*
- Abel: *La formation continue en didactique de la prononciation – un outil pour dépasser les querelles méthodologiques ?*
- Lodovici-David & C. Berger: *L'oralisation d'un texte écrit au service d'une prise de conscience des spécificités de l'oral : un continuum pour travailler la compétence interactionnelle et la phonétique*
- F. Santiago: *Théorie, recherche et didactique de la prosodie et de l'intonation en L2 : nouvelles perspectives*
- Chabanal & F. Mourier: *La question cognitive dans la phonétique corrective : une approche exemplariste (Mémoire lexicale et fréquence : de nouveaux enjeux pour la didactique de la prononciation.)*
- O. Nocaudie et al.: *Oral d'aujourd'hui, oralité de demain : et la phonétique corrective dans tout cela ?*

¹⁵⁴ French as a Foreign Language, known as FLE in France (*Français Langue Etrangère*).

¹⁵⁵ This article also retraces the history of foreign language pronunciation teaching in Germany.

¹⁵⁶ This article focuses particularly on L1 Chinese and L1 Portuguese learners.

While some of the topics echo those presented in this document (intelligibility, variation, interaction, intonation) others expose concerns of specific relevance in France, such as corrective phonetics or the reference to an ‘unnatural’ marriage between phonetics and didactics. It is immaterial that none of the contributions focus on the teaching of English in France; the crucial development here is a shared recognition of the need to determine the epistemology of foreign language phonology didactics, and on that basis, to determine what place to give the didactics of spoken language within foreign language didactics (see also Abou-Haidar, 2018, concerning orality in French as a Foreign Language teaching).

5.3.b. My pronunciation decision-making in France

Primarily focused on Polish learners of English, Szypra-Kozłowska nonetheless hoped that her book would contribute beyond national borders to bridging the gap between phonetic research and the practice of pronunciation teaching, by presenting a “holistic motor-cognitive multimodal approach to English phonodidactics” (viii). I concur with her, by presenting in this section guidelines which are specific to my L1 French learners. Details of how, for two decades, I differentiated teaching English majors and students with other majors were provided in Part I. Switching back and forth between the two forced me to explicitly recognise and switch between paradigms, territories and identities. The experience afforded me the luxury of being able, for 20 years, to compare, contrast and experiment with two different principles underlying pronunciation teaching. Table 26 lists the six populations I have worked with, and takes account of issues related to intelligibility and identity when prioritising pronunciation instruction. The other two columns contain details of the broad objectives and relevant traits of these populations, and the dominant principle which has guided my decision-making concerning them (Table 26):

<i>Population</i>	<i>Broad objectives & traits</i>	<i>Dominant paradigm</i>
In- & pre-service English teachers	- in-service: work on their pronunciation - pre-service: aim for nativelike pronunciation (competitive exam, nativeness ≈ authentic)	Nativeness + discussion of Intelligibility
	increase their awareness of criteria for prioritising features	
	usually quite invested	
English majors	aim for coherent nativelike production	Nativeness
	predominantly L1 French	
	chose English (integrative motivation, maybe invested)	
Non-English majors	accent instruction & listener training	Intelligibility
	predominantly L1 French	
	English often imposed/obligatory (usually instrumental motivation, rarely invested)	
Academics/ teachers	accent instruction & listener training for “careers working with the public” ¹⁵⁷	Intelligibility
	diversity of L1s & backgrounds	
	often chose English (probably instrumental motivation & often invested)	
Non-academic staff	accent instruction & listener training for “careers working with the public” ¹⁵⁸	Intelligibility
	diversity of L1s & backgrounds	
	usually chose English (probably instrumental motivation & maybe invested)	
EMI students	listener training & accent instruction (esp. for group work)	Intelligibility
	diversity of L1s & backgrounds	

¹⁵⁷ See Derwing and Munro (2015)

¹⁵⁸ *ibid.*

<i>Population</i>	<i>Broad objectives & traits</i>	<i>Dominant paradigm</i>
	<ul style="list-style-type: none"> - if chosen: maybe integrative motivation & invested - if imposed/obligatory: probably instrumental motivation, maybe invested 	

Table 26: Populations I have worked with, broad objectives and traits, dominant paradigm

Academics and teachers have attended my classes because they are going to be teaching in English (EMI) or because they want to prepare for international conferences, the crucial distinction being the differing status of the audience (students vs peers) and the likely ratio of audience members who are native English speakers. Furthermore, teachers and students within higher education institutions have different institutional identities (or roles) and therefore have different learning opportunities at their disposal, e.g., structured *Lunch in English* sessions are commonly organised and financed on French campuses for staff (academic and non-academic) but rarely for students. While both may consider themselves learners – or be considered as such – they will obviously be both speakers and listeners, from different academic contexts and cultures, and with different identities.

5.3.c. Choosing 'high-value' features

For a feature and its use to be considered 'worth the effort' or 'high-value' to these various populations, sufficiently for it to be given attention or to be included in limited teaching time, the teacher should determine whether the feature is (Table 27):

<p>A) statistically frequent and of high-value ...</p> <ol style="list-style-type: none"> 1. propositionally: does it improve the speaker's intelligibility? 2. socially: does it promote or reflect appropriate levels of investment? <ul style="list-style-type: none"> • does it express the appropriate¹⁵⁹ degree of accentedness? • does it contribute to the acceptability of the speaker's speech? 3. individually: does it promote or reflect appropriate levels of motivation? <ul style="list-style-type: none"> • does it improve the speaker's comprehensibility? <p>B) teachable;</p> <p>C) learnable;</p> <p>D) OR Does sound, peer-reviewed research validate any of the factors listed above, in a way that is appropriate to the specific teaching context or learners?</p>

Table 27: Criteria to determine the value of potential features to teach

It is impossible to attribute absolute relative weighting to these factors, as their importance will differ for each context, for each group, and even for each individual learner, and not all features are under a speaker's conscious control – all of this will also evolve over time. I feel quite strongly that teachers must take responsibility for the weighting, mainly because it obliges them to become more aware of their learners and their teaching context – both of which seem essential to being professionally acknowledged within one's institution. For example, a final high rising tone might sound quite annoying (unacceptable) to a native English-speaker teacher in her 50s when used by 1st year French university STEM majors. Even though the teacher knows that the feature occurs frequently and is acceptable in certain age groups of native speakers and in certain regions, she could argue that using it will hamper the speaker's intelligibility, misrepresenting the speaker's certainty in what they are trying to express and in the contexts they are likely to encounter. The feature is teachable and learnable for these French L1 learners, but – based on her professional experience in these contexts – using it effectively might be trickier. Another, perhaps more common, example would be my German students who, after a year

¹⁵⁹ The adjective 'appropriate' belies the negotiation which may occur explicitly between the learner and teacher and which is implied in 1, 2, and 3.

abroad in Glasgow, would return to Bavaria with strong local Glaswegian accents. While their nativelike pronunciation was an impressive achievement, they had to be told that such a strong regional accent would be unacceptable for the jury of the competitive exam to become a schoolteacher: the sociolinguistic and institutional stakes were too high for them to use that accent. In other words, they could not be “allowed” to use a non-standard L1 variety, raising the issue of who owns norms.

This small A-D box seems a paltry final product for such a long text on L2 English pronunciation. Initially I had hoped to develop a detailed flowchart, where teachers could answer yes-no questions and arrive at one, predetermined possible answer. However, while I can list three to four broad categories of factors to consider, I cannot list all the local, socio-culturally situated factors. Even more importantly, it would be impossible to model all their possible relative *weightings*. There is no easy formula for this; even Brown had great trouble arriving at a calculation for FL which is widely cited but remains insufficient. Teachers must take responsibility for the weighting, and, in turn, teacher training programmes must equip them to justify their choices and to remain flexible enough to modify them.

It is possible to cope with linguistic variation in spoken English, as a speaker, a listener, a teacher or a learner, because training can be designed to empower individuals to make conscious, informed choices in dynamic environments, despite constantly changing interlocutors and contexts, needs and desires. The search for a single Holy Grail of pronunciation instruction has long been recognised as futile:

In the early 1960s, a number of studies explored the hope that one method of L2 teaching would prove superior to all others. In general, such studies entailed examining learner outcomes in classes in which the same or similar content was taught through a variety of methods. As several researchers pointed out ... the search for a ‘best’ method was fraught with problems because of complexities within the classroom. (Derwing, Munro & Wiebe 1998, 397)

Taking complexities outside the classroom into account, Levis recently listed six guidelines for setting priorities in intelligibility-based teaching, distinguishing between ESL and ELF communication contexts (2018, 186):

1. Features that have an explicit connection to communication and to other areas of language should be prioritised.
2. Mispronunciations that cause difficulties in processing should be given priority.
3. The pronunciation of important lexical items should be given priority over less important items.
4. Errors that carry a high FL should be given priority over those that do not.
5. More frequent errors are more important than less frequent errors.
6. Features that are learnable should be prioritised over those that are not.

In the first instance I had intended to provide an example for each guideline, of how I translated each one into teaching L2 English pronunciation at a French university, but it rapidly became obvious that it was impossible. For example, many of my learners substitute /s/ or /z/ for the dental fricatives. These are frequent errors, but these contrasts do not have high FL and their learnability is low, in that it takes great effort over much time to overcome the error. However, if they occur in “important lexical items” (e.g., *path* vs *pass* for engineers), I would need to address them. Another example is the pronunciation of grammatical markers, e.g., I focus on whether to add a syllable, regardless of the voicing distinction, /s – z/ or /d – t/. These will also be frequent errors (e.g., **wa-tched*, **mea-su-red*, **a-na-ly-sed*) but the correct versions seem learnable, based on my teaching experience. Given the redundancy of English (e.g., *I *watch TV last night*), I doubt the endings are essential to the semantic content, but I do wonder how acceptable it would be for my learners to delete the grammatical marker in a formal or high-stakes context. Notwithstanding, the mere fact that Levis’ six, concise guidelines oblige teachers to reflect upon

what should be taught and why, makes his guidelines a valuable tool for teachers seeking to affirm their professional identity as competent, reflexive L2 pronunciation teachers.

To conclude, the objective is to help learners to amplify the signal and to reduce the noise, regardless of the variety chosen as a model for pronunciation. This amounts to adding an accent to their existing one and helping them develop the ability to accept and process Englishes. To use a botanical metaphor, accent addition¹⁶⁰ is like getting the benefits of both grafting and pruning, two procedures which result in sturdier stock and/or more desirable fruit or flower. Grafting adds new stock onto an existing tree or plant, whereas pruning removes unnecessary growth, leaves which are not contributing to the fruit or the blossom. Pruning and grafting optimise the plant's performance; accent addition could be thought of as doing the same for speakers. Certain features are enhanced, and others are trimmed, making their speech easier for listeners to process and more agreeable to hear. Therefore, I am now in a position to express three broad phonodidactic principles:

- **Principle 1:** Pronunciation work should reflect the fact that it prepares learners for socio-culturally embedded interactions.
- **Principle 2:** Because English displays pluri-national variation, accommodation skills are essential regardless of the chosen target variety or model. These skills are necessary for both speakers and listeners.
- **Principle 3:** As pronunciation learning cannot be dissociated from its social context, not all errors can be seen or treated as equally problematical – for speakers to produce, for teachers to assist with, or for listeners to comprehend and accept.

¹⁶⁰ Derwing and Munro (2015, citing Derwing & Munro 2009) distinguish between accent reduction as a business model developed by entrepreneurs, accent modification as a medical model used by speech language pathologists, and pronunciation teaching as carried out by language instructors. (154) The latter, therefore, would have as its goal accent addition.

Part IV: Current and Future Research

In Parts I and II, I explain my academic background and situate my research, as well as provide an overview of how the notions of intelligibility and identity underlie much of my research. Part III discusses the associated implications for teaching and learning pronunciation, while Part IV explores how training for variation is – or will become – integrated in my research. To that end, I describe the lines of research in which I am currently involved. I also list the research projects which I hope to be able to pursue – alone, with students or peers (in France and/or abroad), and/or with non-academic staff.

After an explanation of why I feel L2 pronunciation research has reached maturity as a field, I explain my stance as a phonodidactician and its impact on the way I do research. This followed by three sections where I present my current and future research projects in turn:

Section 6.3. Focus on pronunciation teaching in ESP classes

Section 6.4. Focus on describing spoken language & testing its impact

Section 6.5. Focus on the impact of variation training

For future projects, I indicate who I feel would be most suitable for each research ‘journey’, e.g., a PhD student, an MA student, other researchers and/or non-academic staff.

6.1. L2 pronunciation: A mature discipline

A variety of metrics show that L2 pronunciation research is “Cinderella no more”, to paraphrase the title of Levis’ 2019 article,¹⁶¹ where he lists the following indicators: “journal articles and other publications, increasing professional books, increased networking opportunities, the increased availability of other resources, and then recent visibility” (12). Even just since 2008, research on the three constructs (accentedness, comprehensibility, intelligibility) has vastly expanded, and more and more work is being done by European teams and on European languages other than English, such as van Maastricht et al. (2016) on Spanish learners of Dutch – a study which also used reaction times. In my view, the field’s remit currently covers:

- observation and description of phenomena (linguistic features, speaker and listener characteristics, varied contexts);
- identification of patterns and relationships (correlative and causal);
- elaboration of methods, models and theories or borrowing and repurposing from other fields;
- prediction of phenomena or behaviour;
- intervention to influence the occurrence or nature of behaviour or phenomena;
- diffusion and exchange of knowledge.

This list was developed by speaking informally with field experts in widely different disciplines, such as immunology and theoretical physics, and by reading about the history of meteorology, geology, and psychology. While I realise that the same criteria cannot be applied to the hard sciences and the humanities, nonetheless, these discussions helped me to identify phases which fields go through, realizing that necessarily phases overlap or recur – perhaps more often than we would think. Therefore, this section highlights some key developments, particularly regarding methods, interventions, prediction and diffusion, in order to identify zones where I could make useful, innovative contributions.

Methodological developments indirectly show how the field has become firmly established. The need for more longitudinal studies has begun to be addressed (Derwing et al., 2012; Derwing, Munro & Thomson, 2008; Munro, Derwing & Thomson, 2015; Munro, Derwing & Saito, 2013). The seven-year

¹⁶¹ Levis, J. (2019). Cinderella no more: Leaving victimhood behind.

data collection period of Derwing and Munro (2013) and Munro et al. (2013) reveal that these researchers were in stable enough posts that they could envisage research projects over such long time periods; such institutional recognition is surely a sign of the stability of the field of L2 pronunciation research.¹⁶² The variety of data being gathered also shows an ability to fund equipment or to fund time using the equipment of other departments or research groups; visual data are being exploited, for example eye gaze/tracking (McDonough et al., 2018; McDonough et al. 2017; McDonough et al., 2015) or video footage of head nods, blinks, and facial expressions during interactions (McDonough et al. 2019; McDonough et al., in press, 2020). Nagle et al. (2019) used free software developed by a psychologist (IdioDynamic, MacIntyre, 2012) to study affective and cognitive states as they change during communication; moreover, they were looking at L2 Spanish, not English. Interactions in general have received more attention (McDonough et al., in press, 2020; Trofimovich et al., 2019; Dao et al., 2019), as related to assessment (Isaacs, 2013; McAndrews et al., forthcoming, 2021; Kang et al., 2019) and in the workplace, from petrochemical engineers in Alberta (Derwing & Munro, 2009) to nurse-patient interactions (Isaacs et al. 2011). This interest in embedding authentic interactions and naturalistic speech in research protocols was already used by Gass in 1982, when she sent ESL students out to ask people for directions, at the train station, and recorded them live.

Modelling specific to the notions of accentedness and comprehensibility of L2 speech first appeared in 2001, once the three constructs had been clearly differentiated.¹⁶³ Reacting to widespread use of listener rating data by researchers in the 1990s, Munro and Derwing (2001) ran two experiments on speech rate, arguing that:

It would be useful to develop a model in which the specific contributors to rating scores are identified and their relative weights specified. One might assume, for instance, that the foreign accentedness score for a particular utterance is affected by a variety of properties of that utterance. [...] However, there are reasons to suspect that speech characteristics beyond segmentals and prosody can affect listeners' judgments. (452-53)

After Munro and Derwing's 2001 "useful step in the development of a model to account for listeners' perceptions of accentedness and comprehensibility" (465), two new questions also began to appear more frequently. First, what do *non*-native listeners notice and/or prefer? This evokes the broader issue of listeners' traits and the impact of those traits on L2 speech perception and indexical rating. A further question goes beyond the characteristics of listeners and speculates about possible instruction or interventions, inverting the traditional native-non-native hierarchy: how can *native* listeners be *helped*?

Interventions here refer most often to formal classroom instruction, and can involve teaching people for specific professional contexts outside of academia, such as phone staff in call centres, social workers working in the Vietnamese community in a Canadian city (Derwing, Rossiter & Munro, 2002) or factory workers (Derwing & Munro 2009b). In the latter study, the results showed that comprehensibility had a major impact on colleagues' willingness to interact with accented speakers. However, other research focuses on documenting and analyzing pronunciation teaching, to try to improve it. The overview table (Table 10 in Part II, 3.3. *Listeners: A methodological fault line*) makes it clear that even in 1998 the potential for such research to influence pronunciation teaching was already an objective. In 2005 Derwing and Munro come back to it, proposing a research-based approach, and ten years later they expanded upon that with their 2015 book *Pronunciation Fundamentals: Evidence-*

¹⁶² See Hambrick (2008, 34): "... we can say that a field [...] exists when a substantial number of major universities designate positions for its members, grant tenure to its members, seek peer tenure evaluations from its members, and allow its members to supervise graduate students".

¹⁶³ This was not the case in 1989, for example, when Anderson-Hsieh and Koehler's article shows that the distinction between comprehension, comprehensibility and intelligibility was not yet fixed. They measured "comprehension" with multiple-choice questions about the content of a listening passage, which today would be considered a measure of intelligibility.

based perspectives for L2 teaching and research.¹⁶⁴ Since 2010, the teaching of L2 pronunciation has become a stand-alone research focus, as opposed to a final sentence or paragraph tacked onto a publication. Studies have examined: the effectiveness of pronunciation teaching (Derwing, 2018; Thomson & Derwing, 2015), prioritising items to teach (e.g., McAndrews & Thomson, 2017), teaching techniques like drama (e.g., Galante & Thomson, 2017), common myths (e.g., Thomson, 2014) and assessment (e.g., Isaacs, 2018). Additionally, insights and implications have been drawn from both phonetics research (e.g., Munro, 2016; Munro & Derwing, 2019) and from psycholinguistic research (e.g., Cardoso & Trofimovich, 2014; Trofimovich & McDonough, 2011). Derwing also provided an encyclopaedic overview of pronunciation instruction (2012) as well as a set of research and teaching goals for the future (2018). Trofimovich (2016) achieved three distinct objectives (description, modelling, rendering research findings accessible to language teachers), by explaining interactive alignment from a teacher-friendly angle, arguing that this model of successful communication has important implications for L2 pronunciation teaching.

Regarding prediction, three recent studies show how different methods are being used:

- Kang, O., Larson, G., & Goo, S. (2019). Interaction features **predicting** examinees’ speaking performances at different proficiency levels.
- Baese-Berk et al. (2018). **Predictability** and perception for native and non-native listeners.
- Kang, O., Thomson, R.I., & Moran, M. (2018). Empirical approaches to measuring intelligibility of different varieties of English in **predicting** listener comprehension of tests.

But while these studies move the field forward, they do not explicitly address the type of prediction which interests language teachers. It would be pedagogically useful for teachers to be able to predict and plan learners’ potential difficulties to some degree, but – as demonstrated in Part III – it is untenable to rely solely upon linguistic features (i.e., only Contrastive Analysis). Here I agree with Munro (2018), that error prediction is not a constructive goal to pursue, and that “teachers should invest their energies in assessing the actual needs of individual learners and helping them to address their most communicatively important difficulties” (278). This I identified as part of a language teacher’s professional responsibilities, reflecting their ascribed identity: they are supposed to be able to make decisions, such as prioritising features, based on evidence.

In terms of diffusion of evidence, a list of 15 recent or forthcoming publications (11 books, three articles in prestigious journals, one software package) confirms the abundance of up-to-date evidence and the arrival of a golden era in L2 pronunciation research (Table 28):

<i>Year</i>	<i>Author(s)</i>	<i>Title & Journal</i>
forthcoming// in progress // under contract	Jones, J., & Isaacs, T. (2021) Kang, O. & Moran, M. Kang, O., Biber, D., & Ghanem, R. Kang, O., Johnson, D., & Kermad, A.	– (forthcoming) <i>Assessing second language pronunciation. Research questions in language education: A reference guide for teachers.</i> – (in progress). <i>A resource book for international cultural communication.</i> – (under contract). <i>Linguistic analysis of spoken English.</i> – (under contract). <i>Discourse prosody and computer modeling.</i>
2019	Nagle, Trofimovich & Bergeron	Toward a dynamic view of second language comprehensibility. <i>Studies in Second Language Acquisition</i>

¹⁶⁴ Interestingly, in that book they praised Jenkins for arguing “against the excessive reliance on intuition rather than empirical evidence in the creation of pronunciation syllabi” (2005, 379), even though at the time their approaches to *prioritising* within a pronunciation syllabus differed.

<i>Year</i>	<i>Author(s)</i>	<i>Title & Journal</i>
2018	Kang, Thomson & Moran Levis, J. Kang, O., Thomson, R. I., & Murphy, J. M. (Eds.) Thomson, R.I.	– Empirical approaches to measuring the intelligibility of different varieties of English in predicting listener comprehension. <i>Language Learning</i> – <i>Intelligibility, oral communication, and the teaching of pronunciation.</i> – <i>The Routledge handbook of contemporary English pronunciation.</i> – <i>English Accent Coach [Computer program]. Version 2.3.</i>
2017	Levis, J., & Munro, M. (Eds.) Isaacs, T., & Trofimovich, P. (Eds.) Kang, O., & Ginther, A. (Eds.).	– <i>Pronunciation: Critical concepts in linguistics.</i> – <i>Second language pronunciation assessment: Interdisciplinary perspectives.</i> – <i>Assessment in second language pronunciation.</i>
2015	Reed, M., & Levis, J. (Eds.) Derwing, T. M., & Munro, M. J. Saito et al.	– <i>The handbook of English pronunciation.</i> – <i>Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research.</i> – Using listener judgments to investigate linguistic influences on L2 comprehensibility and accentedness: A validation and generalization study. <i>Applied Linguistics</i>

Table 28: Recent or upcoming publications testifying to publishing interest

These researchers are examples of the “leaders” which Hambrick and Chen (2008) define in their reference to intrafield dynamics and social relations, as those “distinct cohorts and aptitudes that make up a successful academic social movement.” (51). Each “cohort” contributes to the *differentiation*, *mobilization* or the *legitimacy* building of the field of L2 pronunciation research, to use their terminology. It is now a distinct legitimate field within applied linguistics in the English-speaking world, which can support the mobility of its members there toward tenure, grants and other forms of institutional recognition. Furthermore, most of these researchers are actively involved in diffusing their knowledge not just among researcher-peers, but are also engaged in efforts to reach out to the wider audience of language teachers, such as the Web site www.pronunciationforteachers.com, in order to provide

professional help and resources for those interested in teaching pronunciation in all educational contexts. We started this site to provide teachers and researchers a place to find out what others are doing in this quickly growing area of language study. (2016)

One of the goals of researchers in this field should be to engage in more productive exchanges with teachers, for example, by running webinars, workshops or including clear pedagogical implications in publications. This would involve researchers – who quite often have (or are working on) a doctoral degree in linguistics, educational sciences or psychology – making at least part of their findings more accessible and useful to language teachers, many of whom may not have the same solid theoretical grounding and/or experimental training. It also requires teachers to show an active interest in staying up-to-date and to proactively seek out and make demands of researchers. Here, a parallel exists with the ethical obligations of doctors, according to “The duties of a doctor registered with the General Medical Council” in the UK.¹⁶⁵ The GMC outlines four broad domains where doctors, in order to justify patients’

¹⁶⁵<https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/good-medical-practice/duties-of-a-doctor>. The General Medical Council: “We help to protect patients and improve medical education and practice in the UK by setting standards for students and doctors. We support them in achieving and exceeding those standards and take action when they are not met”.

trust, are told that they “must show respect for human life and make sure your practice meets the standards expected of you”:

1. Knowledge, skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

While parallels exist in the other three domains, the fourth domain explicitly mentions ethical concerns which also apply to language teachers: “You are personally accountable for your professional practice and must always be prepared to justify your decisions and actions.” The obligation for teachers to remain current and to be accountable is only one aspect of ethics in language education, a research area which I have not worked in. However, I am following developments closely in France for three reasons. One, the law was modified in 2017 making it illegal to discriminate against someone based on their ability to express themselves in a language other than French;¹⁶⁶ this legal framework gives new relevance to variation training within university language policies. Second, the push to have experimental and data collection protocols approved by university ethics boards has become more widespread for research in applied linguistics or sociolinguistics. Third, forensic linguistics has taken off in France over the past decade.¹⁶⁷ These three factors lead me to predict that, in France and other EFL contexts, ethical issues will be addressed more and more widely and explicitly in both L2 pronunciation instruction and research.

To conclude, since 1995 when Munro and Derwing published two papers exploring L2 pronunciation through the filter of three constructs, L2 pronunciation has evolved into a vibrant, recognised research field with a new generation of prolific partnerships addressing existing and new issues, to further our understanding of what works best, how and why. Looking back recently on this, the two state (2020): “We still have a lot of questions, but many more people are working on them now, and our field is growing to an extent we couldn’t have imagined in 1993.” (1). In the next section I position myself as a phonodidactician and explain what it means to work from that stance. This leads logically to sections 6.3 – 6.5., where I outline research I am currently involved in and what I hope to achieve, in order to add to the field’s body of knowledge.

¹⁶⁶ LOI n° 2008-496 du 27 mai 2008 portant diverses dispositions d'adaptation au droit communautaire dans le domaine de la lutte contre les discriminations. Modifié par LOI n°2017-256 du 28 février 2017 - art. 70. **"Constitue une discrimination directe la situation dans laquelle, sur le fondement** de son origine, de son sexe, de sa situation de famille, de sa grossesse, de son apparence physique, de la particulière vulnérabilité résultant de sa situation économique, apparente ou connue de son auteur, de son patronyme, de son lieu de résidence ou de sa domiciliation bancaire, de son état de santé, de sa perte d'autonomie, de son handicap, de ses caractéristiques génétiques, de ses mœurs, de son orientation sexuelle, de son identité de genre, de son âge, de ses opinions politiques, de ses activités syndicales, **de sa capacité à s'exprimer dans une langue autre que le français**, de son appartenance ou de sa non-appartenance, vraie ou supposée, à une ethnie, une nation, une prétendue race ou une religion déterminée, **une personne est traitée de manière moins favorable** qu'une autre ne l'est, ne l'a été ou ne l'aura été dans une situation comparable."

¹⁶⁷ Coulthard (2010) concludes his article *Forensic Linguistics: the application of language description in legal contexts*, saying, “So far there is comparatively little work in France and on the French language. I hope this special issue of the journal will serve to generate more interest in the area in the short term and in the longer term a significant body of research findings.” (Available at: <https://www.cairn.info/revue-langage-et-societe-2010-2-page-15.htm?contenu=article>). Lagorgette has been a major force in the francophone world for the promotion of forensic linguistics, bringing out her book in the same year. (Lagorgette, D. (2010). *Linguistique légale et demande sociale: Les linguistes au tribunal*).

6.2. Doing phonodidactics

The useful notion of phonodidactics was coined by Szpyra-Kozłowska and by extension, I created the term phonodidactician (See Part III, Section 5.3 *Phonodidactic guidelines for L1 French learners*). The term labels the space I claim for myself within the research world, even though this term currently has no institutional value. Within the French university system, the labels which would usually be attributed to me are either as a linguist or a didactician, and I could earn a national qualification as a specialist in a language or in language sciences. These broad fields are recognised by the CNU as 'sections', e.g., English studies are the 11th section, and language sciences are the 7th.¹⁶⁸ One applies for posts within a section, but across the 52 official sections, many people do work where two sections or fields meet or overlap, and each field has numerous subdivisions. These research interests are reflected in the national organisations which interested researchers can join, in order to support one another, exchange ideas and advance their field. For example, the ALAES brings together English linguists in higher education, ALOES unites English language specialists in France, focusing on spoken language and at all levels of education, the GERAS primarily attracts researchers interested in English for specialised purposes, whereas those interested in English didactics and acquisition usually turn to ARDAA.¹⁶⁹ By qualifying in the 11th section, English studies, I am able to apply for posts as an English language specialist. Nonetheless, even after obtaining a tenured post, the officially recognised identities open to me – 'linguist' or 'didactician' of English – have not felt fully appropriate. Now that I have a term to designate the space I occupy in relation to them, combining membership of these groups seems more legitimate in my own eyes.

Beyond such institutional considerations, while having a label for oneself is handy, if the label is not widespread or known people wonder what actions are carried out by such a person: what do you *do*? Although I have taught both phonetics and phonology, I research pronunciation: what, where, when, how, by whom, for whom, and why. Answering these questions is inherently a didactic concern because the goal is to improve teaching practices. According to Puren (2015a), management research and language-culture didactics research share a conceptualisation of purposeful behaviours as research objects: "A research model founded on the praxeological aim [...], in other words, the improved efficacy of practices by seeking to better adapt to the environments of action" (4).¹⁷⁰ In terms of the types of actions undertaken by a phonodidactician, collaboration is a crucial structuring principle, given the overlapping nature of the fields, methodologies and data involved. In my case, as I am pursuing evidence upon which to base L2 pronunciation teaching practices, in order to best answer my research questions, I need a variety of data: corpus data, classroom observations, interviews, acoustic analyses, survey data and experimental data. To access such evidence I must, therefore, work closely with didacticians, acoustic phoneticians, sociolinguists, language teachers as well as corpus linguists. We need to negotiate a common language and a shared respect for each other's epistemological roots and perspectives, in order to co-design protocols and studies, to collect and share data. In my 2013 chapter, *The English Pronunciation Teaching in Europe Survey (EPTiES): Initial results & useful insights for collaborative work* (AH2013_01), I was already starting to realise how valuable collaboration could be, concluding

¹⁶⁸ The *Conseil national des universités* (CNU) is the National Council of Universities, a body which governs the qualification, recruitment and career of university professors and lecturers in France. See <https://www.conseil-national-des-universites.fr/cnu/#/> and 'le décret n° 92-70 du 16 janvier 1992' at <https://www.legifrance.gouv.fr/loda/id/JORFTEXT000000344860/2020-10-05/>.

¹⁶⁹ The original French for each : ALEAS (*Association des Linguistes Anglicistes de l'Enseignement Supérieur*); ALOES (*Association des Anglicistes pour les études de langue orale dans l'enseignement supérieur, secondaire et primaire*); GERAS (*Groupe de Recherches en Anglais de Spécialité*); ARDAA (*Association pour la Recherche en Didactique de l'Anglais et en Acquisition*).

¹⁷⁰ Puren's original French: "un modèle de recherche fondé sur la visée praxéologique [...], à savoir une amélioration de l'efficacité des pratiques par la recherche de la meilleure adéquation aux environnements d'action."

that because it facilitates constructive, face-to-face criticism among colleagues, it enriches the field as whole. While at times my EPTiES colleagues and I felt we were mutually trying to herd cats, the EPTiES experience was exceptionally formative for me: researchers from ten European countries (Finland, France, Germany, Ireland, Macedonia, Netherlands, Poland, Spain, Sweden and Switzerland) working together to create and administer a survey, present and publish the findings. We truly created new knowledge, gathering data, analysing it and formulating interpretations which none of us could have predicted. This was my first taste of a truly collective research enterprise and it opened my eyes to its potential advantages. Since then I have found collaboration crucial to answering my research questions and to contributing modestly to the broader field. Hopefully, this explanation of my stance contributes to showing why the research projects presented in the next sections represent necessarily different yet complementary approaches to my research questions.

To conclude, I feel that the neologism ‘phonodidactician’ is quite timely, reflecting a growing recognition of foreign language phonology didactics in France. Creating this term may therefore also highlight the issue of where to situate spoken language didactics within the larger field of foreign language didactics, as well as in relation to other fields.

6.3. Focus on pronunciation teaching in ESP classes

6.3.a. Current research

My most recent research on pronunciation teaching focuses on teaching intervention studies and listener assessment, thanks to collaborations with acoustic phoneticians in Czech Republic and Poland. We intend to continue our partnerships, now that we have developed a shared working language.

- **Using acoustically modified learner voices as models**

In our forthcoming paper on self-imitation using one’s own modified voice as a model for Listen-and-Repeat (AH2022), we present the results of a mixed methods intervention which, while technologically ‘bulky’, could be replicated. We sought to modify the production of prominence-related features in L2 English by four native French-speaking university lecturers, in read-aloud speech. First, we acoustically modified selected parts of participants’ productions to create models to use in a Listen-and-Repeat protocol. Then, both quantitative (acoustic measures) and qualitative (free comments from discussion) data were collected. We were also able to record productions from three months later, to trace longer term retention of modifications. Expert listeners (teachers of English and of English pronunciation or phonetics) compared a selection of these productions to the original diagnostic recordings. They rated the degree of Nativelike rhythm and melody. The results confirm that self-imitation can help individuals to modify prominence-related features of their pronunciation, that such changes can be retained over a three-month period, but that people cannot reliably judge what they have modified. We conclude that this reveals new potential for Listen-and-Repeat as an effective technique in pronunciation instruction.

The technological aspects of this intervention were quite involved¹⁷¹ and could not have been managed without the expertise of my Czech colleague, Radek Skarnitzl. Other researchers have taken the search for a Golden Speaker much further, to the point where replicating our intervention, even in a modified form, might be a step backward. Table 29 lists a few of the papers which have inspired us, culminating in Ding et al. (2019) – which came out after our paper had been submitted:

¹⁷¹ Skarnitzl has created “a step-by-step demonstration of how to modify the melodic and temporal patterns of speech in the Praat software.” available at <https://fonetika.ff.cuni.cz/en/research/from-our-research/psola-modification/>

2002	Carnegie Mellon University, Pittsburgh, USA	Probst, K., Ke, Y., & Eskenazi, M. (2002). Enhancing foreign language tutors – In search of the golden speaker.
2011	Massey University, NZ; Nanjing University, China	Wang, R., & Lu, J. (2011). Investigation of golden speakers for second language learners from imitation preference perspective by voice modification.
2013	Università degli Studi di Napoli, L'Orientale and Federico II; Italy	DeMeo, A., Vitale, M., Pettorino, M., Cutugno, F., & Origlia, A. (2013). Imitation/self-imitation in computer-assisted prosody training for Chinese learners of L2 Italian.
2015	Università degli Studi di Napoli, L'Orientale, Italy	Pellegrino, E. & Vigliano, D. (2015). Self-imitation in prosody training: a study on Japanese learners of Italian.
2019	Iowa State University; Texas A&M, USA	Ding, S., Liberatore, C., Sonsaat, S., Lučić, I., Silpachai, A., Zhao, G., Chukharev-Hudilainen, E., Levis, J., & Gutierrez-Osuna, R. (2019). Golden speaker builder – An interactive tool for pronunciation training.

Table 29: Publications on ‘Golden Speakers’ and self-imitation

Working in different institutions and on different languages (e.g., L2 Italian for Chinese and Japanese learners), these researchers all seem to be converging upon a truly useful Computer-Assisted Pronunciation Training (CAPT) tool. While I do not have the skills or knowledge to continue autonomously in this research vein, I will continue to monitor progress and have planned further collaborations. For instance, partial replication of Probst et al. (2002) would be a perfect opportunity to research the use of such a CAPT tool in EMI training. Almost twenty years ago they understood the importance of exploiting technology to render L2 pronunciation learning do-able and of using several speakers as model voices:

... a system teaching pronunciation of a foreign language should have a set of several native speakers for the non-native speaker to listen to. In this way, each non-native speaker could imitate the native speaker who is optimal for him- or herself. The set of native speakers should represent a wide variety of values for each individual feature. Three features that two speakers can be matched up by are gender, F0, and speed of articulation. There are, of course, other features like hyperarticulation, but these are harder to measure precisely, and accurate matching would not be guaranteed. We believe that when the user is freed in this manner from attending to variables linked to F0, speed of articulation, and gender, the complex task of learning the pronunciation of a foreign language is reduced to a simpler one, one that may be more achievable. (163-4)

It would be easy for me to replicate with my ESP students the “Preparations for the experiment” stage of their experiment, where they asked 14 non-native speakers:

Suppose you are learning a foreign language, and you are trying to improve your pronunciation. You have the voices of six native speakers, and you have to choose one of those voices to imitate. What criteria would you use to choose? (164)

‘Same gender’ and ‘clarity’ were most frequently mentioned, followed by ‘pitch’, ‘similar form of expression’, ‘intonation’ and ‘accent-free speech’ (163-4). Would my L1 French learners mention the same criteria?

- **Imitating a foreign accent as a pedagogical technique**

Foreign language accent imitation is a powerful teaching technique with measurable, lasting results, as we showed in two recent publications (AH2021_02, _03). The teaching intervention integrates an articulatory approach into an ESP class and as such, constitutes a novel, “physical” entry point where learners can experience success. The production results (acoustic analyses) showed little effect of imitation, whereas the perception results (using 235 native and non-native listeners) demonstrated that imitation was relatively successful. This is encouraging because perceptual measures are more relevant

for ESP learners' future professional interactions. Moreover, the participants were pleasantly surprised that they had successfully modified their pronunciation in the imitation condition, well enough to trick listeners. When we repeat the study, we will track the changes in participants' attitudes toward their own performance and interview them at the end. Moreover, we are currently modifying the protocol to collect results for more features. The technique could be extended to other language 'pairs', e.g., Russian-accented French, and a more controlled teaching intervention could be designed and carried out, with similar measurements (acoustic and perceptual) used to test instructional effectiveness.

6.3.b. Future research

My future research on pronunciation teaching will involve mixed methods studies, including one based on video-stimulated recall (VSR) data collected in 2015. Extending the teaching intervention studies regarding imitation and an articulatory approach, and involving listener assessment (AH2021_02, _03), will benefit from continued collaboration with an acoustic phonetician, A. Rojczyk. Other language teachers could be involved, as well as PhD students in language didactics or applied linguistics, for example.

- **Language teacher cognition & training**

Teacher cognition in L2 pronunciation teaching is a wide-open research seam, and I will contribute an analysis of videos of teachers teaching and follow-up interviews (using video-stimulated recall, or VSR) with those teachers. Analysing their discourse while reacting to selected moments from their filmed teaching, will reveal much about their professional identity (see Lousada, 2011) as well as their language ideology. I filmed the sequences in the spring of 2015 and have used a selection of clips in teacher training sessions; the clips illustrate moments where pronunciation was the focus of a normal, high school English class, and pre- and in-service teachers have benefited from discussing examples of good practice. However, it is only now that I feel capable of effectively analysing these clips as well as the VSRs, in relation to identity issues and language ideology.

- **Awareness of physicality of pronunciation**

More evidence over longer periods must be collected to demonstrate the extent to which explicit pronunciation work within an articulatory framework helps – and motivates – learners to modify their pronunciation. Pronunciation is different to learning vocabulary or grammar, in that it is the sole motor-sensory aspect of language learning. In my experiences with a range of adult learners, many have acquired an L2 pronunciation more efficiently when sensori-motor awareness is exploited during instruction. Borrowing Vygotsky's concept of Zone of Proximal Development (ZPD) (1986), I posit a proactive role for L2 pronunciation teachers in heightening learners' awareness of the articulatory traits of their L1, L2 and any further languages. Lantolf (2005) explains how Vygotsky saw learning as "assisted performance, whereas development is the ability to regulate mental and social activity as a consequence of having appropriated, or internalised, that assistance" (2005, 336). Vygotsky's own words are quite explicit (1986):

What the child can do in cooperation today he can do alone tomorrow. Therefore the only good kind of instruction is that which marches ahead of development and leads it; it must be aimed not so much at the ripe as at the ripening functions. [...] instruction must be oriented toward the future, not the past. [...] to lead the child to what he (cannot) yet do. (Vygotsky & Kozulin, 188-189)

It has been gratifying for me to see how becoming aware of the physicality of speech surprises adult learners. This moment of surprise and heightened awareness is perhaps a 'ripening' moment, a ZPD provoked by exercises in line with an articulatory approach (even if triggered merely by the fleeting novelty of such exercises). Using materials created and shared by several researchers and authors (see

Ashton & Shepherd, 2012; Messum, 2010; Messum & Young 2017, 2019), I have been able to help learners to modify certain pronunciation features which experimental research has shown to be difficult for L1 French learners of English (see Gick et al., 2004; Wilson & Gick, 2014). An articulatory approach should, therefore, influence the prioritising of features for pronunciation work. By this, I mean that the degree to which features are self-observable by learners (e.g., with pocket mirrors) could be a criteria for prioritising; for example, learners can easily see the change from a slightly open (similar to French) to more closed aperture for /əʊ/ and /oo/. In other words, awareness of the physicality of pronunciation can serve not only to motivate learners, it could also affect how teachers prioritise. I argue that for some groups of learners, physicality can be the “trigger” which grabs their attention or motivates them to try.

While I now have experience with a mixed methods approach to measuring improvement, via acoustic and perceptual measures, I would very much like to use IdioDynamic software for listener assessments, to be able to track changes in judgments and then, in a stimulated recall interview, discuss fluctuations with the listener, as Nagle et al. (2019) did. Would it also be possible to use IdioDynamic software with learners-as-listeners, who could assess their own speech? Surely this would tap into the why and how of their reactions and judgments, which would go beyond the static measures which are still the norm, providing a more dynamic view of listener judgements of accented speech. Such a view would concur with a situated conceptualisation of language learning and use.

6.4. Focus on describing spoken language & testing its impact

6.4.a. Current research

This section describes two corpus-based projects, for which the groundwork has been laid, three conference presentations have been done,¹⁷² and one publication has been accepted: the cross-linguistic corpus EIIDA of native speaker academic discourse and the IP-CAFES corpus of non-native speakers – both of which will be ideal for contrastive linguistic studies. It is exciting for me to come back to using corpora to gather evidence of actual language practices, linking it now to my L2 pronunciation research. It was even more galvanising to see that Biber was a plenary speaker at PSLLT in 2019,¹⁷³ speaking on “Corpus linguistics: Implications for pronunciation teaching and learning”, and Pickering was the ‘Corpus Linguistics’ speaker at the Language Learning roundtable discussion. As Basso (2020) says in her review of Pickering’s 2018 book, *A Discourse-Pragmatic approach to teaching the pronunciation of English*:

The book succeeds well in placing the Brazil legacy within the much-changed cultural context of the new varieties of English spoken by millions of speakers and their international use. [...] One major reason why the book is innovative is the incorporation of the issue of communication and the

¹⁷² Frost, D., Abou-Haidar, L., Henderson, A. & Wilhelm, J. (accepted, 2021). "Le projet IP-CAFES : réactions au discours académique de non-anglophones". Conference proceedings, 'DIPLAPLU Didactique des langues & plurilinguisme(s) : 30 ans de recherches', November 14-15 2019, UGA, Grenoble. Numéro spéciale de la revue *Recherches en didactique des langues et des cultures - Les cahiers de l'Acedle*.

Falaise, A. & Henderson, A. (2020). "EIIDA's Second Life: Préparer un corpus multilingue oral à des transpositions didactiques futures". Presentation at RADELAS Conference, Université Grenoble-Alpes, France, February 20-21.

Frost, D., Henderson, A., & Wilhelm, J. (2019). "Le projet IP-CAFES: réactions au discours académique de non-anglophones". Presentation at ACEDLE conference 'Didactique des langues & plurilinguismes : 30 ans de recherche'. Université Grenoble-Alpes, France, November 14-15.

Frost, D. & Henderson, A. (2019). "Perception, comprehension and judgement of foreign accented English academic discourse: What exactly is the problem?". Presentation at 'EPIP6 International Conference on English Pronunciation: Issues & Practices', Ss. Cyril and Methodius University, Skopje, Republic of North Macedonia, May 17-19.

¹⁷³ <https://psllt2019nau.wordpress.com/>

treatment of intonation between native and non-native users of World Englishes and International English. (1)

Having been taught Brazil's model of discourse intonation at the University of Manchester, and then having taught his book *Pronunciation for advanced learners of English* (1999), it is now time that I turned as a researcher to prosody via corpora, perhaps even applying his model to the study of spoken academic discourse by non-native speakers of English. For example, the findings of Herment and Tortel (forthcoming, in AH2021_01), revisiting the intonation contour of non-finality and showing that falling tones dominate read speech, could be tested in the IP-CAFES corpus; non-native speakers may have more recourse to reading text aloud, which would then interfere with the usual discourse value of falling tones and make it harder for students to grasp the speaker's intended meaning.

- **EIIDA**

The EIIDA corpus is one of the first multilingual spoken corpora of specialised academic language; the acronym stands for Interdisciplinary and Cross-linguistic Academic Discourse¹⁷⁴. The corpus was the main deliverable of a 2012-17 project run by Carter-Thomas and Debaisieux¹⁷⁵ and was developed in order to carry out comparative linguistic analyses on written and spoken academic discourse (research articles vs conference presentations) and in three languages – English, French, Spanish. This format facilitates analysis of the impact of the writer's/speaker's linguistic culture on these two modes of communication. Moreover, disciplinary comparisons can be made, as the corpus brings together discourse from geochemistry and linguistics.¹⁷⁶

In 2019 I was asked to coordinate a request for CORLI¹⁷⁷ financing, and we received funding to have the English part of EIIDA aligned and prosodically annotated using SPPAS (Bigi, 2012). This would not have been possible without the aid of the original EIIDA developers and of the computer scientist A. Falaise, and, above all, the committed assistance of Professor N. Ballier, who also found and supervised the intern (A. Méli) responsible for doing the alignment and annotation. The prospect of collaborating with Professor Ballier led me to revisit basic readings in discourse analysis from my Manchester Master of Education days (e.g., on paratones see Brown, 1977; Brown & Yule, 1983) and to explore the work of Léon on phonostyles (1993). Our main goal is to investigate the prosodic variability of lecture delivery via a prosodically annotated corpus for ESP/EAP, which has not yet been done.¹⁷⁸ For example, I am starting to tag and analyse de-accentuation patterns in repetitions, as in the word 'incompetence' in this corpus extract:

Extract JISC 02, segment 19: "... stages that are useful for teachers and curricular designers to consider the first is that students move from one to two is vital because it defines a student's

¹⁷⁴ *Études Interdisciplinaires et Interlinguistiques du Discours Académique*.

¹⁷⁵ Respectively, from the LATTICE (UMR 8094) research group at the Ecole Normale Supérieure and Université Paris 3 Sorbonne nouvelle, in Paris.

¹⁷⁶ For each language (English, French, Spanish) the researchers collected 60 texts from two fields: Geochemistry (15 publications and 15 transcribed oral presentations) and General Linguistics (15 publications and 15 transcribed oral presentations). The corpus totals 180 texts (written and spoken) including approximately 900,000 tokens. The spoken corpus (300,000 tokens) corresponds to roughly 20 hours of audio recordings.

¹⁷⁷ The CORLI (Corpus, Langues, Interactions) group brings together researchers and teaching researchers in linguistics, and its objective is the federation teams and laboratories, researchers, and teaching researchers engaged in the production and analysis of digital, oral, and written corpora, regardless of the language and/or the writing system. (See <https://corli.huma-num.fr/en/welcome>)

¹⁷⁸ Prosodic analysis of spoken academic discourse is a rich research area, even though such discourse has been extensively studied for other features, e.g., Poos and Simpson (2002) and Mauranen (2004) analysed it for hedges and Cheng and Warren (2008) dealt with collocates.

moment of need as a learner moves from unconscious incompetence to conscious incompetence she becomes aware of the desire to know.”

This is a good example of how such corpus data could help to test standard assumptions about de-accenting in repeated segments (Ladd, 1996). Similarly, I have started locating occurrences of phrasal accenting, specifically for expressions of opinion, to analyse the interactions between phonological and discursive levels, e.g., I think we need... ≠ i think WE need...¹⁷⁹ The author’s stance is different in the two versions, where emphasis reveals the articulation between language and context. This example emphasises that, although

... research on academic registers has found that mode differences are extremely important in accounting for linguistic variation. [...] oral academic discourse is more language-specific than its written counterpart. (Carter-Thomas & Jacques, 2017, 3, abstract)

Another example shows how I hope to use the annotated EIIDA corpus for pedagogical decisions. For example, I would like to test the general notion that it is more likely for us to pause between grammatical units. My hypothesis is that this is not what speakers truly do. Moreover, the frequency of pauses might also depend on the kind of grammatical unit, with different pause patterns occurring before a restrictive relative clause as before a non-restrictive relative. Analysing EIIDA will show where speakers do indeed pause and what type of intonation they use. The goal is to identify variation in actual language use, in order to then use those examples in listening exercises, when training both speakers and listeners for EMI contexts. For example, speakers who might tend to read aloud (e.g., a lecture or conference paper) can be made aware that listeners usually detect a prosodic unit before they identify the syntactic or semantic unit; therefore, pausing or chunking are essential first steps in making one’s speech listener friendly. Once again, this annotated corpus gives easy access to evidence of interactions between phonological phenomena, discourse organisation, syntax, and semantics. EIIDA also makes it possible to test common, pedagogical guidelines.

To conclude, I would like to exploit this corpus of spoken academic discourse by native speakers for four reasons: to learn more about prosodic annotation and analysis; to reveal variation in use; to test some widespread pedagogical notions; and to establish some benchmarks for a similar corpus of non-native academic discourse, IP-CAFES. Collaboration with linguists or graduate students would greatly accelerate progress in these areas.

- **IP-CAFES**

The acronym for this project stands for “Interphonology – Czech, Arabic, French, English and Spanish”, where interphonology refers to the project’s focus on English as it is spoken by academics with those native languages.¹⁸⁰ The project involves partners in France (for English, French and Arabic), Czech Republic, and Spain. The project’s long-term goal is to improve the pronunciation training of both speakers and listeners, so that they can more easily participate in English Medium Instruction. There are four stages to the project, as illustrated below (Figure 7): recording lectures to create the corpus, extracting and modifying clips to use as stimuli, creating and administering perception tests, and finally, integrating the results into improved teacher training.

¹⁷⁹ This particular example is taken from the title of an article using the EIIDA corpus: Hartwell, L., Esperança-Rodier, E., & Tutin, A. (2017). I think we need...: Verbal expressions of opinion in conference presentations in English and in French.

¹⁸⁰ Our corpus may also be exploited, by using it contrastively with the corpus of academic FFL (written and spoken) which already exists within the LIDILEM research group.

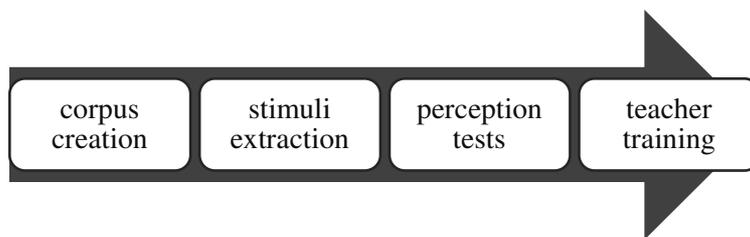


Figure 7: Four stages of the IP-CAFES project

From a descriptive angle, the corpus could reveal variation in the acoustics of word stress, so that we could further the work of Eriksson and Heldner (2015) on this subject, for lecture-style speech. The perception tests will allow us to study the impact of FAS (e.g., EMI lecturers teaching in English as an L2) on listeners from a variety of L1s, including L1 English. By impact I am referring to the four constructs examined in Part II: intelligibility, comprehensibility, accentedness and acceptability. By manipulating one sole feature, e.g., duration or pitch, it is possible to control variables affecting listener judgments, so we could create a two-stage perception test (e.g., as in AH2018) which includes a modified extract. Correlations with the four constructs would then be clearer. We could also extend Holm's (2008) findings, investigating the relative contribution of intonation and duration to the intelligibility of Norwegian as an L2, or N2 as she refers to it.¹⁸¹ In her study, native Norwegian listeners wrote down the words they perceived in each accented sentence, which had been recorded by speakers from seven different L1s. This was her intelligibility measure. Her hypotheses (2008) could be re-tested with our corpus and perception tests (169):

- A. Both intonational and durational aspects will affect the degree of foreign accent.
- B. Durational aspects will affect the degree of foreign accent more than intonational aspects.
- C. Both intonational and durational aspects will affect intelligibility.
- D. Durational aspects will affect intelligibility more than intonational aspects.

Holm was unable to confirm or refute her hypotheses because different manipulations were helpful to varying degrees to speakers from different L1s:

The results show that only intonation manipulation enhances N2 intelligibility for the English and German L1 groups and that only duration manipulation enhances N2 intelligibility for the French, Tamil and Persian L1 groups. (2008, 1653)

The detail of those results is as follows:

The degree of accent for French N2 was significantly reduced as a result of the intonation manipulation (Table 5.1.), but the intelligibility remained unaffected (Table 5.2). In fact, only German and Tamil N2 speech were simultaneously accent reduced and intelligibility enhanced: German N2 was both accent reduced and intelligibility enhanced from the intonation manipulation, and Tamil N2 was both accent reduced and intelligibility enhanced from the duration manipulation. (2008, 168)

Holm concludes that her results support Derwing and Munro's (2005), where accentedness and intelligibility showed no clear relationship. Therefore, by working with L1 French listeners, we could extend Holm's work.

¹⁸¹ She now runs "the only company in Norway which specializes in forensic analyses of recorded speech using phonetic techniques.", according to her website (<http://www.fonkonsult.com/English.html>).

6.4.b. Future research

Diverse paths are possible. For example, either EIIDA or IP-CAFES could be explored for word stress variation, allowing me to extend the work from my 2010 article, *A Corpus-based, pilot study of lexical stress variation in American English* (AH2010_01). This project would be appropriate for a MA student in linguistics. Another path would be to explore other specialised speech genres, such as teacher-student tutorials or interactions between students and university library employees. Here I will briefly describe two other paths, both involving specialised corpora, one for pedagogical and the other for purely descriptive aims.

- **Corpus-based TTS HVPT**

One of the biggest challenges in doing the HDR is to try to understand how one’s research threads (might) converge, and I have long wondered how to combine my interests in pronunciation training, prosody, ESP and corpora. Would it be possible to create specialised, spoken corpora for ESP fields, e.g., nuclear engineering or food sciences, to align and prosodically annotate them, and explore prosodic variation across speakers of different L1s as well as across disciplinary fields? Is prosody a feature which exhibits disciplinary-specific traits? Discipline-specific features exist for written corpora, so in theory the same could hold for oral corpora. One example of such a project is Text-to-Speech corpus-based HVPT, delivered through a CAPT environment, as developed by Qian, Chukharev-Hudilainen and Levis (2018). The participants were 32, adult Russian L1 learners of English, who were English majors studying translation in an EFL setting, and they did segmental perceptual training in a pre-test/post-test design. The novelty of the approach, other than the fact that they drew on a specialised (marine engineering) corpus to create training materials, is that it used

a computational approach to perception utilizing corpus-based word frequency lists, high variability phonetic input, and text-to-speech technology to automatically create discrimination and identification perception exercises customized for individual learners. (ibid., abstract, 69)

As the authors explicitly offer up their model for replication, it would be possible to exploit the EIIDA and/or IP-CAFES corpora to that end. This project would require close collaboration with computational linguists and computer engineers or educational technology colleagues, and a PhD student would find ample material to analyse.

- **Revisiting Functional Load with specialised corpora**

Similarly, specialised corpora could be used to update and/or ‘specialise’ the Functional Load concept, as for his base figures Brown relied upon data which are arguably no longer appropriate given the explosion in corpus linguistics and computing ability in the last 60 years (1988). For example, Brown cites:

Denes, P.B. (1963). On the statistics of spoken English. <i>Journal of the Acoustical Society of America</i> , 35, 892-904.	A phonetically transcribed set of Phonetic Readers (from 1942 and 1959) were transferred to computer punch-cards; they were not audio recorded.
King, R. D. (1967b). A measure for functional load. <i>Studia Linguistica</i> , 21, 1-14.	Stories were read aloud and transcribed by the author.
Roberts, A.H. (1965). <i>A statistical linguistic analysis of American English</i> . The Hague: Mouton.	The words from Horn's (1926) list “A basic writing vocabulary” were put into sentences. These were then recorded, with the phonemic transcriptions of the words alone being transferred to punch-cards.

Even today's general language corpora would provide more valid data, let alone specialised corpora. To what degree are certain contrasts more or less common in specific fields? This would be a rich seam for a linguist working in ESP, either a fellow researcher or a student at Master or PhD level.

6.5. Focus on the impact of variation training

6.5.a. Current research

- **UndOA**

UndOA (Understanding Other Accents) is the current incarnation of a long-standing objective of mine,¹⁸² primarily to create an on-line tool which would help people to “train their ears” to more easily understand foreign-accented English. For example, before heading to Japan for negotiations in English with Brazilian partners, a native French speaker could work through a sequence of exercises, exposing their ears to Japanese- or Brazilian Portuguese- accented English which was progressively more and more accented. The tool amounts to a very primitive version of HVPT, using non-native accented speech as the training model. UndOA, as an IDEX-funded project at Université Grenoble-Alpes (UGA), via the Language Centre, allowed me to hire an intern who began to develop both a Moodle-based database of recordings of foreign-accented English and set of exercises, as well as a Web site. In the autumn of 2019 this on-line tool was test-driven with Masters students and with undergraduate students during the Language Days at UGA, but an improved version will be a central part of intercultural training sessions as part of the next grant proposal. These sessions will aim to prepare students before an international mobility, multilingual project groupwork on campus or via international tele-collaboration, and will also become a part of voluntary staff training, to improve the welcoming and integration of international students. While I am competent in designing and delivering the intercultural workshops, I need help with technological development. We would very much like to extend the database and exercises to accented French, for example with a Master's level student. Research at doctoral level from a sociolinguistic or applied linguistics perspective will also be possible, e.g., regarding the effectiveness of perspective-taking exercises using UndOA resources (see Vorauer, 2013).

6.5.b. Future research

In this section, first I explain how I envisage including acceptability measures in work on FAS and then I describe the work I would like to undertake with three populations: EMI teachers, students, non-academic staff. Work related to EMI teacher training is already underway with a PhD student who I am co-supervising, F. Picavet. Research with students and non-academic staff will involve new collaborations and touch on institutional objectives and policy.

- **Measuring the acceptability of FAS**

In the coming years, the concept of acceptability will join three other, well-established concepts (intelligibility, comprehensibility and accentedness) as crucial in better understanding how foreign-accented speech is experienced by listeners. Therefore, acceptability must be integrated in variation training and in my future research.

¹⁸² In 2014 I submitted a project proposal to GRAVIT, after preparing it with the help of the Service de Valorisation de l'Université de Savoie. The goal was to create an on-line tool (LOFT: Language On-line Feedback Tool) for foreign language users and learners, integrating feedback on the intelligibility of their pronunciation. (GRAVIT ref. n° 30501). In 2009 I had submitted a similar proposal at the regional level 'Appel PEPS: Projets Exploratoires / Premier Soutien'. (In January 2014 GRAVIT and GRAIN (a business incubator) and PETALE (business growth tutor) combined to become GATE 1 at <http://www.gate1.fr/>).

Below is a modified version of the table developed by Munro and Derwing (2015, 290), which summarises the possible outcomes of prioritised pronunciation instruction, whereby “the three dimensions in question are independent enough of each other that a change in one does not automatically entail a change in either of the others” and for which there is empirical evidence (2015, 291). My modification involves two shaded columns, adding acceptability to the three dimensions and suggesting hypotheses to test in future research (Table 30):

<i>Outcome Pattern</i>	<i>Intelligibility</i>	<i>Comprehensibility</i>	<i>Accentedness</i>	<i>Interpretation</i>	<i>Acceptability</i>	<i>Interpretation</i>	
1	√	√	√	Optimal. Outcomes 1 & 2 are equivalent. Speaker’s utterances are understood more fully and processed more easily by listener.	√	Speaker’s utterances are acceptable.	
					x	Speaker’s utterances are not acceptable.	
2	√	√	x		√	Speaker’s utterances are acceptable.	
					x	Speaker’s utterances are not acceptable.	
3	√	x	√	Positive, Listener understands more of what speaker said, but experiences no greater processing ease.	√	Speaker’s utterances are acceptable.	
					x	Speaker’s utterances are not acceptable.	
4	x	√	√		Positive. Listener experiences greater processing ease but does not understand more material.	√	Speaker’s utterances are acceptable.
						x	Speaker’s utterances are not acceptable.
5	√	x	x	Positive. Listener understands more but experiences no greater processing ease; nor does the speech sound noticeably closer to native-like.		√	Speaker’s utterances are acceptable.
						x	Speaker’s utterances are not acceptable.
6	x	√	x		Positive. Listener experiences greater processing ease but does not understand more; nor does the speech sound noticeably closer to native-like.	√	Speaker’s utterances are acceptable.
						x	Speaker’s utterances are not acceptable.
7	x	x	√	Negative. Outcomes 7 and 8 are equivalent. There is no change in the amount understood or processing ease.		√	Speaker’s utterances are acceptable.
						x	Speaker’s utterances are not acceptable.
8	x	x	x		Negative. Outcomes 7 and 8 are equivalent. There is no change in the amount understood or processing ease.	√	Speaker’s utterances are acceptable.
						x	Speaker’s utterances are not acceptable.

Table 30: Outcomes of prioritised pronunciation instruction by Munro & Derwing (2015, p390), modified to include acceptability. *Original table = un-shaded columns.

The original, 2015 table is based on the Intelligibility Principle, where “simultaneous improvement of intelligibility and comprehensibility (is) optimal” for pronunciation instruction (Munro & Derwing, 2015, 389). The most striking aspect of it is that six of the eight outcomes are positive. In contrast, reading the table from a perspective where pronunciation instruction is based on the Nateness Principle results in only four of the outcomes being positive. Taking one example from the original table, Outcome seven is described as negative, even though the speaker’s utterances sound noticeably

more native-like. This is because “accent reduction is not relevant in prioritised pronunciation teaching and should not be considered an appropriate goal when classroom time for instruction is limited” (ibid.). However, in pronunciation instruction based *strictly* on the Nativeness Principle aimed at accent reduction, Outcome seven *in principle* would be a positive outcome – despite no improvement in intelligibility or comprehensibility. I find it nearly impossible to imagine, however, how someone could respect Nativelike features and remain incomprehensible or unintelligible.¹⁸³ And even having taught nominally under this principle when teaching English majors and future English teachers, I would have struggled to find such a combination ‘positive’.

In the shaded columns, acceptability is presented as an ‘independent dimension’, although this has not yet been established. The Interpretation lines have been split into two lines for each Outcome Pattern and the shaded columns are completely speculative. For example, in Outcome Pattern seven where ‘There is no change in the amount understood of processing ease’, the speaker’s utterances would be deemed unacceptable despite sounding ‘noticeably closer to native-like’ after pronunciation instruction.

To test the hypotheses, I could employ scalar ratings and potentially response latency data via IATs. Dynamic ratings using *IdioDynamic* software and follow-up interviews would be an extremely productive mixed methods approach, helping to determine whether reactions differed for phonetic vs phonemic divergences (see Section 3.1. *Conceptual overview*) To that end, I would have the listeners report which features they felt they were attending to, either during (e.g., via a think-aloud protocol) or afterwards (e.g., reviewing their responses with them, as in video-stimulated recall). I would try to select a group of listeners from among the L1s which my learners are likely to encounter, e.g., French L1 listeners for my STEM and Physical Education students, Japanese and Brazilian Portuguese L1 listeners for my nuclear engineering students. Collaborative research could involve postgraduate students or other researchers, especially those having ready access to the target listener populations. The stimuli would have to be carefully graded beforehand for the other three dimensions. Furthermore, it might be useful to contrast True and False statements, in order to explore the relationship between of truth value and acceptability judgments (see Derwing, Munro & Wiebe, 1997).

- **EMI teachers**

Improving teacher training for EMI is one of the objectives of the IP-CAFES project. More specifically, IP-CAFES aims to pinpoint the contribution to comprehensibility and cognitive load of specific temporal and melodic features in extracts from lectures given in English by non-native speakers. As such the project contributes to work on four of the six ‘research questions’ posited by Gorsuch, in relation to training International Teaching Assistants in North American universities (2016, 277-284):

- Research task 1a: “Extend Anderson-Hsieh & Koehler’s (1988) study or Hahn’s (2004) study to further establish links between ITAs’ use or non-use of appropriate sentence-level stress and general fluency markers, and undergraduates’ comprehension and learning. At the same time add one key feature: Increase and diversify the ITA group the undergraduates listen to.”
- Research task 1b: “Add a second key feature: Focus on a more, and better-defined, array of suprasegmental features, and devise machine measures that reliably align these features to listeners’ perceptions of ITA comprehensibility.”
- Research task 2: “Create a developmental account of ITAs’ growth in fluency and prosody.”
- Research task 3: “Create a course of treatments based on Levis et al.’s (2012) teaching simulation preparation task using short texts on foundational concepts from ITAs’ academic disciplines. [...]”
- Research task 4: “Do a case study with five ITA candidates who are engaged in a semester-long

¹⁸³ Nonetheless, Munro and Derwing do indicate that they found such evidence in their 1998 study with Wiebe (2015, 391). Holm (2018) also observed “improvement in accent without improvement in intelligibility”.

teaching practicum in which their teaching talk and interactions with students are recorded and analyzed for evidence that ITAs are using modified speech, such as self-repairs, or self-vocalization. Observe change or growth in recurring grammatical (or other) forms specific to individual ITAs in their specific teaching contexts.”

Closely related to *Research task 4* is the work of Picavet, whose PhD I am currently co-supervising. He is examining teacher-student communication via his corpus of EMI lectures, practicals and tutorials for Master's students in engineering at Grenoble's Institute of Technology.¹⁸⁴ Analysing filmed sessions and interactions, he is trying to identify moments of communication breakdown to see how they are resolved, as well as to track identity and language proficiency changes in teachers and students. It would be quite useful for other graduate students to do similar work on EMI in other fields of study. Additionally, Gorsuch's list explicitly mentions listeners and their perceptions of ITAs' comprehensibility, echoing my calls for listener training.

- **Students**

Students would benefit from listener training before they participate in EMI programmes, go on a foreign mobility and/or before they work in multilingual groups, for example HVPT training as part of intercultural training. A more advanced version of the UndOA on-line tool could fulfil this role, or a modified version of Thomson's on-line *English Accent Coach*, e.g., using Bambara- or Brazilian Portuguese-accented English. The numerous research possibilities could include analysing the tool, its use, the intervention that accompanies it, participants' reactions, longitudinal impact on attitudes or proficiency, etc. More studies are needed of intercultural pronunciation training aimed at listeners and speakers, in order to address a societal need which Fraser identified almost a decade ago:

The goodwill of local people must go beyond mere tolerance and patience, to active understanding of, and accommodation to, the linguistic needs of the other (e.g., to respond in a way that is perceived as encouraging by the recipient, not merely intended as such by the speaker). (Fraser, 2011, A118)

In other words, if we want to prepare learners and teachers for successful communication and learning, language teaching must acknowledge that accent is independent from intelligibility and that neither exists in a vacuum. Teachers also need to take responsibility for explicitly analysing their context and their learners, to be able to make appropriate pedagogical choices. For example, style, fluency and attitudes to accent “are rarely addressed in foreign language classrooms: they are aspects of language practice typically acquired with naturalistic experience in the target-language community” (Moyer, 2014, 12). In EFL contexts there are even fewer opportunities for such experiences than in an ESL context,¹⁸⁵ surely reinforcing the validity (or even the urgency?) of treating them in the classroom. This project would benefit from being carried out in collaboration, for example, with sociolinguists and the assistance of educational technology engineers would be extremely helpful as well, in further developing the on-line tool. A doctoral student in applied linguistics would find more than enough material for the analysis of learner identity or language acquisition.

- **Non-academic staff**

Following on the work of Derwing, Rossiter and Munro (2002) with social workers, it seems obvious to me that non-academic staff operating in internationalised/internationalising university environments¹⁸⁶ could also benefit from variation training, especially those who (regardless of their institutional status) regularly interact with speakers from other L1 backgrounds. A crucial difference

¹⁸⁴ The *Institut Polytechnique de Grenoble*, also known as the INP or INPG.

¹⁸⁵ There is (arguably) even less time for such experiences in an ESP classroom.

¹⁸⁶ Derwing and Munro would certainly qualify this as “a highly diverse workplace” (2015, 172).

between this population and, for example, EMI teachers and students, concerns identity issues and one's place within the institutional hierarchy. Staff do sign up willingly, and often quite enthusiastically, for 'continuing education' courses, but to what degree does attending such a course benefit an individual's career within the institution? In any case, in such workplaces

... we can envision a two-pronged approach to improving communicative success, such that speakers with intelligibility issues can get support at work from a trained ESL instructor, while their co-workers can be helped to become better listeners. In addition, negative attitudes and faulty assumptions should be addressed to promote intercultural understanding, which may lead to increased WTC (willingness to communicate) on the part of all members of the workplace community. (Derwing & Munro, 2015, 172)

As this project touches on wider, institutional language policy issues, it would be a collaborative research project, PhD or otherwise, and sociolinguists would be ideal partners. Furthermore, FLE specialists must be involved if the focus on FAS is to encompass foreign-accented French.

Conclusion

The objective of the *document de synthèse* is to prove that I am capable of supervising doctoral level research. It is an odd discourse object – neither a second PhD thesis, nor a detailed summary of my publications and other activities. Writing it required me to step back from my achievements, to critically analyse them and identify a guiding thread. The resulting text, presented here, reveals how potentially disparate elements in the spheres of research and teaching have been woven together into a coherent whole during my career. In my analysis of this long process, I have shown how the concepts of intelligibility and identity are delicately intertwined, for L2 speakers as well as listeners, with successful communication at stake in so many spoken exchanges – within the university microcosm but also, arguably, well beyond it.

At the beginning of this document I first mentioned the work of Derwing and Munro, whose work has inspired and influenced me for over two decades. By a fortunate coincidence, in August 2020 they published a retrospective commentary on their original work from the 1990s, as well as updated statistical modelling of their early data. In their “Retrospective interpretations” they call for

... more research focusing on what listeners can contribute to the success of interactions. [...] The studies that have attempted to assist native speakers to engage with accented speakers are limited in range; countless approaches are possible but need exploration. In the next twenty-five years, we hope to see a stronger focus on addressing social problems associated with L2 speech with practical solutions. (23).

My heart leapt when I read these words, as they validate what I have formulated as my broader research objectives within – and for – my specific community, a French university. Namely, to identify how to improve my learners’ communication skills in English (in the role of listeners as well as speakers) and then apply those findings to design and deliver effective instruction. Crucial to achieving this will be the addition of acceptability to the trio of key constructs (accentedness, comprehensibility, and intelligibility), as well as the increased recognition of the role of listeners – i.e., the cognitive and social factors which influence their reactions to Other accented speech. To that end, in my role as a phonodidactician who is deeply committed to improving L2 pronunciation and research, I will continue to pursue mixed methods studies and to collaborate across disciplinary boundaries. This is how I can best contribute to answering that call to action.

In closing, we are communicating more and more frequently via audio- or video-conferencing in the global academic community, and we are exchanging with astonishingly diverse groups of people. The challenges of a sometimes-degraded acoustic signal require us to ‘be on our best behaviour’ during spoken interactions. We now have a golden opportunity to raise awareness of the important role of listeners, in fostering more comfortable, efficient communication across language varieties, borders and technological formats.

Bilingual glossary of terms and acronyms¹⁸⁷

In this document I have used many English acronyms and terms, in order to facilitate cross-referencing with the original research publications. The bilingual glossary below provides an explanation and/or the French equivalent, where possible. Sometimes the English acronym could be confused with two French equivalents, e.g., SLA is used instead of ALS to designate the field of research *Acquisition d'une Langue Seconde*, because in French the acronym ALS also designates *Anglais Langue Seconde*. In the last column, French acronyms have been provided where possible.

English		French	
accentedness	accentedness	« la force de l'accent »	x
background	background	Terme employé au sens qu'a acquis ce mot en français, à savoir 'formation' ou 'origines'. Le concept inclut la langue maternelle, les types de pédagogie de la prononciation que l'un individu a connu dans le cadre de l'enseignement formel, l'expérience d'écouter FAS ainsi que l'expérience d'avoir été locuteur non-natif soi-même (Grey et van Hell, 2017).	x
EFL	English as a Foreign Language	« anglais langue étrangère » – en contexte alloglotte tel le Japon ou la France, où l'anglais n'est pas la langue dominante parlée en dehors des cours de langue/dans la communauté plus large.	ALE
EIL	English as an International Language	« anglais langue internationale »	ALI
ELF	English as a Lingua Franca	« anglais lingua franca »	ALF
ELT	English Language Teaching	« enseignement et didactique de l'anglais »	x
EMI	English Medium Instruction	« enseignement de matières par l'intégration de l'anglais » – parfois appelé environnement d'enseignement de matières en anglais (EMA). Il s'agit d'un exemple de l'enseignement de matières par l'intégration d'une langue étrangère (EMILE).	EMA
EPTiES	English Pronunciation Teaching in Europe Survey	<i>EPTiES</i> est un sondage en-ligne de février 2010-septembre 2011, créé et administré conjointement par dix chercheurs de dix pays européens différents, pour étudier l'enseignement de la prononciation de l'anglais à travers l'Europe.	x
ESL	English as a Second Language	« anglais langue seconde » – en contexte homoglotte tel l'Angleterre ou les Etats-Unis, où l'anglais est la langue dominante parlée en dehors des cours de langue/dans la communauté plus large.	ALS
ESP	English for Specific/Special Purposes	« anglais de spécialité » – parfois en France utilisé, à tort, comme synonyme pour LANSAD (Langues pour spécialistes d'autres disciplines).	ASP
FAS	Foreign-Accented Speech	variété orale marquée par un accent ; parole accentuée	x

¹⁸⁷ Translated version of this explanation: “Dans ce document j'ai choisi de maintenir l'usage de certains termes et sigles anglophones, afin de faciliter le croisement avec les recherches d'origine. Toutefois, le glossaire bilingue ci-dessous présente une explication et/ou l'équivalent en français, où possible. Parfois le sigle anglais est utilisé afin d'éviter toute confusion, e.g., SLA est utilisé pour désigner le domaine de recherche *Acquisition d'une Langue Seconde*, afin d'éviter toute confusion avec *Anglais Langue Seconde*, également ALS en français. Dans la dernière colonne les sigles français ont été fournis où possible.”

English		French	
FL	Functional Load	« la charge fonctionnelle » – concept développé par Brown (1988) pour les phonèmes de l'anglais britannique.	CF
FFL	French as a Foreign Language	Français Langue Etrangère	FLE
HVPT	High Variability Phonetic Training	« entraînement à la haute variabilité phonétique »	x
IAT	Implicit Association Test	« test d'association implicite »	TAI
ITA	International Teaching Assistant	« enseignant étranger associé » – souvent des doctorants	x
L1	first or native language, mother tongue	« langue 1 » ; « langue maternelle »	L1, LM
L2, L3, ...	second/third language...	« langue 2 » ; « langue seconde »	L2
listener	listener	« auditeur » – J'ai choisi de ne pas utiliser le terme interlocuteur afin de bien faire ressortir la nature active de l'acte auditif.	x
LFC	Lingua Franca Core	Lingua Franca Core est un 'noyau dur' d'éléments de la prononciation de l'anglais à enseigner, proposé par Jenkins (2012).	x
NELF	Native English as a Lingua Franca	« anglais natif comme lingua franca » – notion proposée par Szypra-Kozłowska (2015).	x
NS	Native Speaker	« locuteur natif »	N
NNS	Non-Native Speaker	« locuteur non-natif »	NN
nativeness	nativeness	<i>nativeness</i> réfère à la qualité d'avoir une prononciation similaire à celle d'un locuteur natif.	x
Nativeness Principle	Nativeness Principle	« principe de <i>Nativeness</i> » – <i>concept introduit par Levis (2005) qui propose que 2 paradigmes sous-tendent l'enseignement de la prononciation, l'Intelligibilité et Nativeness, ce dernier désignant l'objectif de prononcer comme des locuteurs natifs.</i>	x
processing ease	processing ease	« la fluidité du traitement ». Il s'agit d'une mesure de la façon dont les stimuli de la parole sont jugés en fonction de la charge cognitive requise pour traiter les stimuli.	x
SIT	Social Identity Theory	<i>SIT</i> est une théorie avancée par Tajfel (1974) visant à expliquer les interactions sociales par l'identité sociale d'un individu, définie comme sa vision de son identité en fonction de son appartenance ou non à un groupe/des groupes, i.e., <i>in-group</i> et <i>out-group</i> .	x
SLA	Second Language Acquisition	« acquisition d'une langue seconde »	ALS
speaker	speaker	« locuteur »	x
UndOA	Understanding Other Accents	« comprendre d'autres accents »	x
UWL	University Word List	<i>UWL</i> est une liste de vocabulaire composée de 808 mots et publiée en 1984 par Xue et Nation. Il s'agit de mots courants dans les textes universitaires. Elle est remplacée par l' <i>AWL</i> (Academic Word List) de Coxhead depuis 2000.	x

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Appendices

Summary in French

Résumé en français du document de synthèse, Henderson, 2020
Intelligibilité et identité :
De l'enseignement de la prononciation
à l'entraînement à la variation de la langue parlée

Présentation du résumé

Ce résumé en français présente les idées principales développées dans mon document de synthèse écrit en anglais. Ainsi ce résumé en français rend les idées principales de mon document de synthèse accessible aux lecteurs non-anglophones. Je ferai référence ici aux contenus du texte source en anglais inclus dans ce Volume 1, et qui se structure comme suit :

Partie I : Parcours de Chercheuse et d'Enseignante

Partie II : Intelligibilité et Identité

Partie III : Les Implications pour la Formation des Locuteurs et des Auditeurs

Partie IV : Recherches Actuelles et Futures

Chacune de ces Parties est divisé en sections (e.g., 2.1, 2.2) et sous-sections (e.g., 2.1.a., 2.1.b.). Dans ce résumé, aux endroits où je fais référence à cette organisation du texte source, ces chiffres apparaissant entre crochets. De même, les tableaux et figures cités se rapportent à leur indexation dans le texte source en anglais. Les sources bibliographiques dans ce résumé correspondent à la bibliographie de ce Volume 1, et mes publications sont indiquées par un codage indiquant l'année de publication, e.g., (AH2021_03) pour faciliter leur repérage dans le Volume 2 où sont regroupés mes publications. Ce codage est expliqué vers la fin de ce Volume, sous le titre « *List of my publications cited in this document* ».

Afin de faciliter la lecture du document dans son ensemble, les nombreux sigles et termes spécialisés sont présentés dans le glossaire bilingue qui suit le texte source en anglais. Ces sigles et termes apparaissent dans ce résumé en italiques. Dans le texte du résumé, toutes les traductions en français de citations courtes sont de ma main ; néanmoins, il reste 8 citations longues en anglais qui ne sont pas traduites.

La Partie I explique l'impact de mes expériences en tant qu'enseignante et chercheuse sur l'évolution de mes recherches au fil des 25 dernières années. La Partie II se divise en deux sous-parties qui traitent chacune d'un concept clé : l'intelligibilité et l'identité. A partir de quoi, les réflexions de la Partie III seront focalisées sur les implications pour l'enseignement et l'apprentissage de la prononciation de l'anglais langue non-maternelle, en particulier dans le contexte de l'enseignement supérieur en France. Il s'agit d'élaborer des lignes directrices concernant la variation de l'anglais parlé et son traitement dans le cadre de la formation auprès de publics universitaires variés (étudiants ainsi que personnel enseignant et non-enseignant). En dernier lieu, la Partie IV aborde mes projets de recherche actuels et futurs, dans le but de voir comment je pourrai agir et contribuer, en tant que phono-didacticienne, à l'amélioration et à une meilleure efficacité de l'enseignement, dans les années à venir.

La première partie décrit mon évolution en tant que chercheuse et en tant qu'enseignante, et spécialement en tant qu'enseignante de la prononciation anglaise L2 pour différents groupes d'apprenants essentiellement en France : étudiants en anglais et étudiants non spécialistes, ainsi que chercheurs. La planification des programmes pour chaque groupe m'a obligée à prendre du recul et à m'interroger sur la légitimité de mes choix en fonction de leurs besoins spécifiques. D'abord, j'essaie d'identifier comment plusieurs sigles font référence à des territoires distincts, chacun ayant un impact sur les possibilités et les choix pédagogiques car chacun reflète une certaine vision de la société, des apprenants, de l'apprentissage, et chacun est ancré dans des paradigmes différents.

En utilisant la métaphore du voyage, j'ai d'abord décrit mes expériences d'enseignement en *ESP* et en *EFL* entre 1994 et 2007, en incluant des détails sur le travail en laboratoire de langues, car c'est là que j'ai senti que les nombreuses variétés d'anglais pouvaient être abordées, le plus efficacement, avec un travail d'écoute inclus à côté du travail de prononciation plus traditionnel. De plus, j'ai pu constater à quel point l'intonation peut être enseignée et apprise, lors de séances de laboratoire avec les étudiants en anglais les plus avancés, en utilisant *Pronunciation for Advanced Learners of English* (Brazil, 1994). Les sessions de laboratoire de langues avec les étudiants de 1ère année de l'*ESP* ont utilisé du matériel spécialement conçu à partir de la *University Word List (UWL)*. Les enregistrements associés que j'ai collectés comprenaient une variété de voix et d'accents, natifs et non-natifs, et se focalisaient essentiellement sur les mots correctement placés et saillants. Il me paraissait important qu'aucun accent ne soit imposé comme norme, l'idée étant plutôt d'encourager une progression sur ce que je qualifierais d'un continuum partant d'un fort accent L1 et allant vers un accent intégrant des traits de la L2, ici l'anglais.

L'année 2008 est présentée comme un tournant car, en plus de modifier mon enseignement *ESP*, j'ai commencé à travailler à un manuel de prononciation et planifié une conférence internationale consacrée à la prononciation anglaise ; j'ai également lancé le projet d'enquête *EPTiES*. D'autres événements et rencontres m'ont permis d'entrevoir une orientation de recherche qui me permettrait de contribuer au domaine. Par exemple, j'ai été intriguée par la collaboration avec un spécialiste de la langue des signes, dont le travail m'a amenée à remettre en question l'étiquette omniprésente de « locuteur natif ». Si vous êtes sourd de naissance et que vous apprenez la langue des signes dans un cadre strictement scolaire, quelle est votre langue maternelle (si celle-ci est conçue comme étant apprise dans un environnement familial) ? Et si la dichotomie natif/non-natif ne représente pas suffisamment la réalité pour les sourds, quelles autres dichotomies faut-il remettre en question, d'une manière plus générale ?

Les normes et les attitudes sociales à l'égard d'accents et de variétés d'anglais spécifiques ont façonné mes choix pédagogiques de modèles de prononciation. C'est d'ailleurs, pour les enseignants tant natifs que non-natifs, un problème étroitement lié aux questions identitaires, qui repose sur l'éternel dilemme de l'impact de l'exposition ou non des apprenants à la variété, et de leur future capacité à interagir dans le monde réel. Par conséquent, comme *ELF* est la tentative la mieux documentée (et la plus provocante) de concilier l'enseignement de l'anglais avec la réalité mondiale des anglais variés et changeants, le débat autour de *ELF* a été traité de manière assez détaillée. En outre, l'essor de la recherche sur *ELF* coïncide avec (et peut être en partie causé par) la propagation du *EMI* en Europe, bien qu'au fil du temps, ce domaine de recherche se soit davantage aligné sur les tendances européennes et mondiales, en devenant moins centré sur l'anglais et plus fermement situé dans le cadre plus large du multilinguisme (voir Jenkins *et al.*, 2018, 596).

L'exploration plus détaillée du débat sur *ELF* pour l'Habilitation a amélioré mon travail professionnel de quatre manières principales :

- Elle m'a incitée à remettre en question les catégories traditionnelles et à reconnaître des idéologies telles que le *native speakerism*.

¹⁸⁹ Parlant de moi, j'utilise le féminin pour désigner le fait d'être une femme chercheuse et enseignante, tandis qu'ailleurs dans ce résumé du document de synthèse, en parlant d'autres personnes, je n'ai pas suivi les consignes de l'écriture inclusive.

- Elle m'a forcée à voir la nécessité d'intégrer consciemment la variation linguistique dans mon enseignement.
- Elle m'a suggéré une nouvelle façon de donner la priorité à l'enseignement de la prononciation, au-delà de l'analyse contrastive et de la prédiction des erreurs.
- Elle m'a amenée à mieux apprécier l'importance des compétences pragmatiques dans la communication interculturelle, car *ELF* donne la priorité à l'interaction locuteur-auditeur.

Cependant, étant donné la relative rareté des cas de mauvaise communication attribués à des caractéristiques de prononciation dans les études de recherche, l'examen du débat sur *ELF* m'a également amenée à me demander ce qui pouvait rendre, d'une façon efficiente, la communication plus fluide et facile. Qui s'adapte à qui - et comment ? Ces interrogations m'ont convaincue qu'il me fallait mettre les compétences d'accommodation au premier plan de ma réflexion, pour les contextes *EFL* et *ESP*. C'était d'ailleurs la suite logique de l'attention que nous avons portée, lors de mes collaborations avec Cauldwell, sur le travail de perception auditive.

Pour conclure, même si mon expérience d'enseignement m'a conduite à rejeter de nombreuses propositions de *ELF* pour mes groupes d'apprenants, le débat sur *ELF* fait écho à ma conviction profonde qu'il faut concilier les concepts de *nativeness* et d'intelligibilité avec mes contextes (*EFL* et *ESP*) et les paradigmes sous-tendant mes choix pédagogiques – un paradigme centré sur l'objectif soit d'un accent natif, soit d'un accent intelligible.

Partie II : Intelligibilité & Identité

L'intelligibilité et l'identité sont au centre de cette deuxième partie car ces deux concepts ancrent mon processus de décision didactique et influencent mes choix et actes pédagogiques. En outre, ces deux notions sont les piliers essentiels du cadre théorique d'une grande partie de mes recherches actuelles et futures.

L'Intelligibilité [Sous-partie]

Au-delà de la question de savoir quel accent choisir comme modèle ou cible dans l'apprentissage d'une seconde langue, cette sous-partie donne un aperçu des recherches sur les caractéristiques de l'anglais parlé qui doivent être présentes pour que les interlocuteurs se comprennent facilement. A cet effet, quatre concepts connexes ont été abordés en détail : la force de l'accent (*accentedness*), la compréhensibilité, l'intelligibilité, et l'acceptabilité. Le Tableau 8 suivant présente les aspects clés des trois premiers : leurs définitions originales de Munro et Derwing (1995a, 1995b), la manière dont ils peuvent être mesurés, les résultats clés et les caractéristiques linguistiques que la recherche a identifiées comme contribuant à chacun d'eux :

	<i>Accentedness</i> (ACC)	Compréhensibilité (COM)	Intelligibilité (INT)
Définition	perception subjective du degré de différence à une prononciation native	perception subjective de la facilité du traitement cognitif	Précision de la compréhension
Mesures	évaluations sur une échelle	évaluations sur une échelle ; potentiellement les données relatives aux temps de réponse	Transcription, questions de compréhension (vrai-faux, QCM, etc.)
Données clés	indépendant d'INT ; corrélation faible avec INT (Munro & Derwing, 1995b; Jułkowska & Cebrian, 2015)	corrélation modérée à forte avec ACC (Munro & Derwing, 1995a, temps plus longs de traitement cognitif ; confirmation récente (i.e., Jułkowska &	indépendant d'ACC ; corrélation faible avec ACC (Munro & Derwing, 1995a) : pas assez de recherche encore sur la relation avec COMP

	<i>Accentedness</i> (ACC)	Compréhensibilité (COM)	Intelligibilité (INT)
		Cebrian, 2015) ; pas assez de recherche encore sur la relation avec INT	
Traits clés concernés	divergences phonémiques ; divergences phonétiques (i.e., Zielinski 2008 ; Trofimovich & Isaacs 2012) ; autres traits	divergences phonémiques	divergences phonémiques

[Tableau 8 : Aspects clés de trois concepts (*accentedness*, compréhensibilité et intelligibilité)]

Dans le document de synthèse, la définition de l'acceptabilité est celle de Ludwig, à savoir la mesure selon laquelle une L2 donnée viole (ou pas) les normes linguistiques (1982). Les quatre concepts sont impactés par la signification sociale de la prononciation ainsi que par les processus cognitifs activés chez les locuteurs et les auditeurs.

La fin des années 2000 marque le début d'une activité prolifique de recherche et de publication sur la parole accentuée. Les origines de ces travaux dans un contexte nord-américain sont décrites par rapport à trois populations d'apprenants : en classe, dans la communauté ou en laboratoire. Les deux principales conclusions concernant les concepts d'*accentedness*, de compréhensibilité et d'intelligibilité sont les suivantes :

- les trois peuvent évoluer, avec ou sans instruction ;
- une personne peut être parfaitement intelligible même avec un fort accent.

Cependant, la contribution relative des traits de prononciation à l'intelligibilité et à la compréhension nécessite encore des recherches, et il se peut que dans certains contextes, l'enseignement d'une combinaison de ces deux concepts soit plus efficace (Thomson, 2018). Néanmoins, il est essentiel de savoir que l'enseignement visant à modifier l'accent, à essayer de faire ressembler quelqu'un à un locuteur natif, n'améliore pas automatiquement son intelligibilité. Il s'agit là d'affirmations bien fondées mais d'une simplicité trompeuse, car certaines personnes doutent encore de l'utilité de l'enseignement de la prononciation, et, de plus, dans mes contextes de travail, le principe de la *Nativeness* reste le principe implicite sous-jacent.

Les auditeurs sont présentés dans cette section comme des acteurs clés des échanges parlés, notamment en fonction de leur *background*. Dans ce terme, j'inclus l'ancrage sociétal plus large de l'auditeur, ainsi que ses expériences formelles avec une langue, en particulier s'il a reçu un enseignement principalement dans un contexte *ESL*, *EFL* ou *EIL*. La nécessité de cette distinction apparaît clairement lorsque l'on examine le cadre de compréhension entre locuteur et auditeur de Lévis (2006, 255), en mettant en évidence les quatre combinaisons interactionnelles possibles entre les natifs et les non-natifs données dans le tableau ci-dessous :

		AUDITEUR (<i>listener</i>)	
		<i>Locuteur natif</i>	<i>Locuteur non-natif</i>
LOCUTEUR (<i>speaker</i>)	<i>Locuteur natif</i>	E) N-N	F) N-NN
	<i>Locuteur non-natif</i>	G) NN-N	H) NN-NN

[Tableau 9 : Cadre de Lévis des combinaisons interactionnelles et la compréhensibilité (2006, 255)]

Lévis explique que le Quadrant A « est généralement supposé être la norme par rapport à laquelle la réussite de la communication est mesurée » (*ibid.*), tandis que le Quadrant B est ce que les contextes *ESL* ont tendance à impliquer : un enseignant natif et des apprenants non-natifs. Les études d'intelligibilité se situent généralement dans le Quadrant C, où les natifs écoutent des locuteurs non-natifs. Le dernier Quadrant D est « un cadre communicatif de plus en plus fréquent dans lequel les natifs ne sont pas impliqués », ce qui en fait le domaine de recherche de *ELF* et *EIL*. D'autre part, les contextes

d'enseignement *EFL* et *EIL* ont tendance à occuper les deux Quadrants B et D. Un problème de transfert de la recherche à l'enseignement est que le Quadrant C (le cas de nombreuses études d'intelligibilité) implique des auditeurs natifs, alors que les contextes d'enseignement de l'*EFL* et de l'*EIL* ont principalement des auditeurs non-natifs. Les auditeurs natifs et non-natifs ne traitent pas la parole de la même manière (Cutler, 2000/1). En bref, les jugements d'intelligibilité semblent être particulièrement affectés par le *background* des auditeurs - leur langue maternelle ainsi que les types de pédagogie de la prononciation qu'ils ont connus dans le cadre de l'enseignement formel. Cela renforce l'argument selon lequel les résultats obtenus dans des contextes *ESL* ne sont pas immédiatement transférables à des contextes d'apprentissage de *EFL*.

Dans le document source en anglais, la section qui suit (3.3) traite des réactions cognitives et sociales à *foreign-accented speech* (*FAS*), confirmant que des traits spécifiques de l'auditeur ont un impact sur le traitement de la parole et les attitudes envers le locuteur. Par conséquent, *FAS* - en tant que type majeur de variation linguistique - doit être abordé explicitement lors de l'enseignement. Les aspects cognitifs théoriques sont explorés en lien avec *HVPT* (*High Variability Phonetic Training*) et sont suivis par la description de l'outil en ligne *English Accent Coach*, un excellent outil d'apprentissage basé sur *HVPT*. La formation de catégories pour les nouveaux contrastes est au cœur de *HVPT*, qui se concentre sur la perception mais améliore également la prononciation, confirmant qu'il s'agit des deux faces d'une même pièce. Néanmoins, le fait que l'entraînement perceptif seul ne favorisera pas une amélioration de la production souligne la nécessité, pour les enseignants, d'assumer la responsabilité d'un enseignement de la prononciation appuyé sur des données de recherche. L'intégration de la variation comme cible est encore plus cruciale dans un contexte *EFL*, surtout si l'on considère que l'*input* est aussi important que l'âge - voire plus important - dans l'acquisition d'une L2 (Flege, 2018 ; Flege & Wayland, 2019). Par conséquent, l'apprentissage de la prononciation de la L2 est affecté par :

- le *background* de l'auditeur, dans laquelle Grey et van Hell (2017) ont inclus l'expérience d'être eux-mêmes des locuteurs non-natifs, ainsi que l'expérience d'écouter le *FAS* ;
- l'environnement d'apprentissage plus large, ce que Holt *et al.* (2018, 1). ont appelé « environnement linguistique ambiant » (« *the ambient linguistic environment* »)

Deux concepts psychologiques connexes sont également brièvement abordés, avec un intérêt particulier pour les contextes d'enseignement *EMI* : la charge cognitive et la fluidité du traitement. En matière de traitement auditif *FAS* augmente les exigences, surtout dans des conditions de double tâche telles que l'écoute d'un cours et la tentative de construire des schémas cognitifs autour de nouvelles connaissances. Alors que les auditeurs peuvent s'adapter rapidement à de nombreux accents (Bradlow & Bent, 2003 ; Bradlow, *et al.*, 1999 ; Cristia, *et al.*, 2012), le niveau de compétence de l'auditeur influe sur la façon dont il fait face à la variabilité du locuteur ; les apprenants ayant une compétence linguistique élevée auront moins de difficultés à déchiffrer de nombreux accents. De plus, les auditeurs, dans l'ensemble, peuvent présenter des degrés variables de tolérance au *FAS* ou aux erreurs et sont donc prêts à s'adapter à des degrés variables, ce que Saito *et al.* (2019) appellent des « auditeurs L2 orientés vers la compréhension » (« *comprehensibility-oriented L2 listeners* »). Pour résumer, la fluidité du traitement (*processing ease*), qui mesure la façon dont les stimuli de la parole sont jugés en fonction de la charge cognitive requise pour les traiter, relie le cognitif au social, *via* l'interaction entre les informations linguistiques et socio-indexicales lors de la perception de la parole.

Les réactions à *FAS* vont nécessairement au-delà des aspects cognitifs et reflètent les normes sociales et les attitudes ou représentations envers les locuteurs natifs ou envers ce qui constitue, selon eux, un langage standard. La brève présentation des stéréotypes et des préjugés subconscients déclenchés par *FAS* met en évidence la façon dont les croyances et les attentes des auditeurs et des apprenants peuvent non seulement conduire à des jugements injustifiés sur un locuteur (par exemple, son niveau de compétence) mais aussi influencer son comportement envers ce dernier.

La dernière section sur l'acceptabilité approfondit la question des normes linguistiques et du langage standard en commençant par une recherche sur la manière dont le terme « acceptabilité » a été utilisé. L'idée même d'acceptabilité repose sur la division de la réalité en une norme native et une « non-norme » (« *non-norm* ») non-native, mais que se passe-t-il si cette dichotomie ne tient plus et que la variation est la norme ? Même si Thomson (2018) affirme que les réactions des auditeurs à *FAS*

échappent à notre contrôle, en soutenant que le besoin d'acceptabilité peut parfois dépasser le besoin d'intelligibilité ou de compréhension, il implique que les enseignants devraient intégrer un travail de prononciation qui aide les auditeurs à modifier leur façon de traiter et de tolérer FAS. Les arguments de Sorace (2020) en faveur des continuums et des gradients, plutôt que des catégories et des dichotomies, se heurtent à la contrainte des locuteurs et des auditeurs qui partagent une idée de ce à quoi la norme devrait ressembler. Dans un contexte impliquant plusieurs langues non maternelles, la distinction faite par Lippi-Green (2012) entre grammaticalité linguistique et grammaticalité socialement construite doit donc rejoindre d'une manière ou d'une autre des questions identitaires importantes.

Pour conclure, la première moitié de la Partie II du texte source en anglais met en avant le rôle des auditeurs en tant qu'acteurs clés des échanges parlés, bien plus qu'on ne semble le reconnaître. Il est étrange de supposer que les locuteurs sont les seuls responsables des malentendus, qu'ils sont ceux qui devraient changer leur façon de parler, alors que les auditeurs pourraient également adapter leur façon d'entendre. Cette notion de responsabilité conduit logiquement à la section sur l'identité.

L'Identité [Sous-partie 4]

L'identité est au centre de cette sous-partie car elle est essentielle dans l'analyse des pratiques d'enseignement de la prononciation d'une langue non-maternelle. L'identité d'une personne, habitée et/ou attribuée, exerce une influence très réelle sur l'apprentissage et l'acquisition de la prononciation, tant en termes de compétences productives que réceptives. Comme l'ont dit Drummond et Schleef en parlant de l'identité dans la sociolinguistique variationniste :

Bien que, sur le plan linguistique, le nombre de variations soit nécessairement limité, une part importante de ces variations peut néanmoins être attribuée à des raisons sociales, et l'identité peut alors jouer un rôle crucial dans la façon dont la langue varie et change. C'est pourquoi la sociolinguistique variationniste ne se concentre pas seulement sur la variation linguistique afin de déterminer comment elle est structurée linguistiquement et socialement et comment elle est utilisée et acquise, mais s'intéresse aussi à la signification de la variation pour les locuteurs et les auditeurs. (2016, 50)

Les locuteurs et les auditeurs conçoivent différemment la variation, en partie en raison des groupes sociaux auxquels ils appartiennent, et ce, selon qu'ils ont choisi cette appartenance ou que d'autres la leur ont attribuée. La théorie de l'identité sociale (SIT) de Tajfel (1974) est expliquée dans la section [4.2], en particulier son orientation bidirectionnelle sur la façon dont les processus au sein d'un groupe (*in-group*) entraînent des comportements et des attitudes hors groupe (*out-group*), et vice versa. Tajfel indique également que définir son identité constitue pour un individu un processus dynamique continu. Par conséquent, cela affecte l'identité des locuteurs et des auditeurs ; les locuteurs ne peuvent pas contrôler la façon dont leur discours sera reçu et les réponses affectives des auditeurs sont liées à des questions d'identité qui excèdent la simple intelligibilité. Comme tous les aspects d'un accent ne peuvent pas être consciemment contrôlés ou modifiés, la question devient de savoir dans quelle mesure la pratique explicite et la sensibilisation peuvent être efficaces pour atténuer les réactions négatives. Le cas amplement documenté des assistants d'enseignement internationaux (ITAs) dans les universités nord-américaines est un parfait exemple de la manière dont les locuteurs et les auditeurs (ici les ITAs et leurs étudiants) doivent accepter une responsabilité partagée pour une communication réussie.

S'ensuivent dans le document source en anglais quatre autres sections qui utilisent des titres doubles :

- 4.3. L'authenticité et la fluidité/*La variabilité et le changement sont au coeur de l'apprentissage d'une langue*
- 4.4 Le *Native speakerism* et l'identité professionnelle/*Les idéologies pénètrent à tous les niveaux*
- 4.5. L'authenticité et l'identité dans les contextes francophones/*L'apprentissage d'une langue constitue un travail identitaire*
- 4.6. L'authenticité et la sécurité/l'insécurité linguistique/*L'émotion et l'affect ont de l'importance à tous les niveaux*

Il y a deux raisons à ces doubles titres. Tout d'abord, le deuxième élément en italique de chaque titre est emprunté aux 10 principes énumérés par le manifeste de 2016 du groupe Douglas Fir pour l'intégration du contexte social dans les recherches en *SLA*, publié dans la revue *Modern Language Journal* sous le titre « *A Transdisciplinary Framework for SLA in a Multilingual World*¹⁹⁰ ». Leur texte signale un changement de paradigme au sein de *SLA* et je pense qu'un changement similaire est en bonne voie dans la recherche sur la prononciation de la L2, ce qui devrait conduire à un changement similaire de paradigme dans l'enseignement et la formation des enseignants. Deuxièmement, les premiers éléments non-italiques reflètent l'orientation thématique que j'ai jugée pertinente pour mes recherches ; le terme « authenticité » apparaît trois fois car il est quasi-synonyme de *native speakerism* dans l'enseignement des langues. Cela a nécessairement un impact sur l'identité professionnelle des enseignants de langues, qui est également façonnée par les forces sociales plus larges que Yuan (2018, 14) appelle les « *grands narratives* ». Ceci est important car ces « récits sociétaux » diffèrent dans les contextes *ESL* et *EFL*.

L'argument de Candéa et Véron (2019), selon lequel l'accent est assimilé à l'authenticité dans la France contemporaine, implique que certains accents n'appartiennent qu'à certains contextes. Par conséquent, un locuteur non-natif de l'anglais ne pourrait jamais être authentique. Cependant, ni l'authenticité ni la *nativeness* ne sont nécessaires pour une communication efficace, si les deux interlocuteurs sont prêts à franchir, ou du moins à chevaucher temporairement, les frontières – qu'elles soient langagières, interindividuelles, et/ou sociétales. Un atelier organisé en mars 2019 en France¹⁹¹ illustre bien le type de recherches menées sur le concept d'authenticité. Les interventions portaient sur les matériaux et les tâches et, dans une moindre mesure, les enjeux phonologiques, sociolinguistiques et institutionnels. L'enjeu sociolinguistique consiste à socialiser les apprenants dans des situations variées (par exemple, la présentation de Wilson) pour développer la « compétence communicative » (Gumperz & Hymes, 1972). Que la reconnaissance de cet enjeu sociolinguistique résulte ou soit provoquée par l'authenticité des supports ou des tâches, elle pose la question de l'identité professionnelle réelle ou idéale des enseignants, notamment pour les non-natifs qui constituent la majorité des enseignants d'anglais en France et dans le monde. Un individu peut se sentir en sécurité ou en insécurité dans son identité professionnelle, et à ce titre, l'(in)sécurité linguistique a un impact direct et puissant sur l'enseignement et l'apprentissage de la L2, en particulier de sa prononciation.

La dernière section de la Partie II [4.7] se poursuit avec des métaphores spatiales en relation avec *English Medium Instruction* (*EMI*), où les spécialistes transmettent des contenus disciplinaires *via* l'anglais. Ce format d'enseignement représente un défi qui, bien souvent, amène les enseignants en dehors de leur zone de confort. De plus, les étudiants ont des attentes de leur professeur en matière de norme linguistique, de sorte que les cours en format *EMI* peuvent également les confronter à la limite de leur propre zone de confort. La différence entre le regard *EMI* et le regard *ELT* est expliquée, en précisant également que le type d'*EMI* ainsi que le type d'établissement où il se produit influencent l'identité des enseignants et des étudiants. Si les enseignants de langues et de terrain collaborent dans une forme de franchissement de frontières, un espace émerge naturellement où l'on peut aussi s'affranchir de la notion de locuteur natif, dans les contextes *EMI* ou, plus largement, sur les campus universitaires internationalisés en France. Je soutiens qu'une formation peut être conçue – et devrait être dispensée – à la fois pour le personnel administratif et le personnel de recherche ou d'enseignement, afin de permettre aux personnes de mieux faire face (cognitivement et socialement) à la variabilité inhérente à *FAS*.

¹⁹⁰ « Un cadre transdisciplinaire pour l'ALS dans un monde multilingue. »

¹⁹¹ Les Journées Impaires de l'ALOES « Quelle authenticité pour (l'enseignement de) l'anglais oral ? » ont eu lieu les 29-30 mars 2019 à l'Université de Lorraine (<https://idea-udl.org/quelle-authenticite/>).

Partie III : Implications pour la Formation des Locuteurs et des Auditeurs

Depuis 2015, la plupart de mes recherches se sont concentrées sur la collecte de différents types de données liées à l'enseignement de la prononciation, en combinant des données qualitatives et quantitatives. Mon objectif principal est de renoncer à la tendance à privilégier l'intuition, plutôt que la recherche, dans la prise de décision chez les enseignants (Levis, 2005, 380). Cette Partie III explore donc les implications de la recherche sur l'intelligibilité et l'identité en ce qui concerne la formation des locuteurs et des auditeurs. Tout d'abord, la variation et les priorités dans l'enseignement de la prononciation de la L2 sont abordées. Ensuite je propose trois principes clés pour l'entraînement à la variation de la langue parlée, en particulier pour améliorer la communication interculturelle dans la communauté universitaire. Je conclus en revenant sur les spécificités de mon contexte en France, pour suggérer des lignes directrices phono-didactiques dans le travail avec les apprenants francophones.

Variation et priorités [5.1.]

Dans un monde simple, les enseignants d'anglais choisiraient une seule variété standardisée comme modèle pour tous les apprenants, pour la prononciation comme pour le travail de compréhension. Le matériel pédagogique serait basé sur ce modèle et chacun serait exposé uniquement à ce modèle. Cependant, la réalité est beaucoup plus complexe car l'anglais est une langue plurinationale plutôt que mono-nationale. Cela affecte la manière dont le monde de *ELT* est catégorisé ainsi que la prise de décision pédagogique. L'aperçu de McArthur explore « la variation et l'institutionnalisation parmi les anglais du monde, en particulier en termes de normes et de modèles pour la langue et l'enseignement de l'anglais » (2001, 2-3). Les forces qu'il a identifiées continuent de tirer l'anglais dans différentes directions, confirmant son argument selon lequel « s'il peut y avoir deux normes nationales dans un même anglais, il peut en principe y en avoir plus de deux » (2001, 10). De nombreux enseignants de l'anglais sont confrontés au dilemme concernant les normes :

Dans quelle mesure la prononciation peut-elle être standardisée (y compris dans la transcription qu'on en fait dans les livres) ? Et si elle ne peut, *de facto* pas être normalisée au sein d'une population en général, comment des utilisateurs de l'anglais (natifs ou non-natifs) peuvent-ils apprendre à comprendre toutes les variations de prononciations de manière adéquate, et être à leur tour compris de manière adéquate ? (2001, 11)

La sociolinguistique variationniste répond en plaidant explicitement pour une nouvelle conceptualisation de la compétence du locuteur qui inclut la connaissance de la variation :

... loin d'être un élément marginal, la connaissance des variations fait partie de la compétence du locuteur. Ceci implique que, afin de devenir pleinement compétent dans la langue cible, les apprenants d'une deuxième langue doivent également acquérir les *patterns* de variations des locuteurs natifs. (Bayley & Regan 2004, 325)

Les enseignants d'anglais ont tendance à encourager les apprenants à viser une seule variété (par exemple, l'anglais américain général) et ils ont tendance à promouvoir la variété standard, en laissant de côté les utilisations non-standards mais natives. Cependant, dans le monde réel, les apprenants-auditeurs sont confrontés à plusieurs systèmes de sons en anglais, avec des traits spécifiques aux locuteurs ainsi qu'aux variétés. Le choix de la variété à utiliser comme modèle par l'enseignant d'anglais est donc assez complexe et est traité plus en détail dans les sections suivantes.

La formation des enseignants et le choix d'un modèle [5.1.a.]

Compte tenu des questions liées à l'intelligibilité et à l'identité soulevées dans la Partie II, il semble évident que, pour que les enseignants puissent faire face à la variation dans leurs choix pédagogiques, ils doivent interroger trois niveaux :

- la langue : Quels sont les traits « utiles » et « réalisables » ?
- les processus cognitifs : À quoi le cerveau du locuteur peut-il faire face ? De quoi le cerveau de l'auditeur a-t-il besoin ?
- les facteurs sociaux : Qu'est-ce qui est approprié à un contexte/environnement donné ?

Les enseignants ne peuvent le faire que s'ils sont capables de prendre des décisions en connaissance de cause. Dans une perspective fondée sur l'intelligibilité, cela inclut la sélection de traits à partir de recherches sur l'intelligibilité focalisées sur les groupes de locuteurs d'une même L1 (Szpyra-Kozłowska, 2015, 28). Cela fait écho au plaidoyer de Jenkins en faveur de l'*éducation* des enseignants au lieu de la simple formation¹⁹² - après tout, ce sont les enseignants qui font généralement la sélection. En même temps, Szpyra-Kozłowska met en garde contre le manque de données empiriques pour soutenir la notion selon laquelle un ensemble de caractéristiques phonétiques spécifiques garantirait l'intelligibilité pour les apprenants *EFL* (2015). Elle arrive à cette conclusion après avoir comparé quatre propositions pour établir des priorités en matière de prononciation : Jenkins' (2000) *Lingua Franca Core*, Cruttenden's (2008) *Amalgam English and International English*, et Collins and Mees' (2003) *Error Ranking*. La liste des caractéristiques qu'elle considère comme « ayant une valeur communicative particulièrement importante » pour les apprenants *EFL* est la suivante :

- Préservation des séries de consonnes en début de mot ;
- Préservation de la distinction fortis-lenis (exprimée phonétiquement par le voisement, la longueur des voyelles ou, pour les occlusives, de l'aspiration) ;
- Prononciation rhotique permise ;
- Préservation des paires minimales consonantiques ayant une charge fonctionnelle élevée (e.g., /b – v/, /f – h/, /l – n/, /l – r/, /ʃ – s/ ;
- Approximations des consonnes permises (avec un lieu d'articulation légèrement différent) ;
- Préservation des paires minimales vocaliques ayant une charge fonctionnelle élevée (e.g., /ɪ – i:/, /e – æ/, /ɜ: – ɑ:/, /v – ʌ/ ;
- Préservation de la distinction phonémique entre les voyelles longues et brèves ;
- Accent tonique ;
- Accent phrastique.

(Szpyra-Kozłowska, 2015, 88-89)

Elle conclut qu'il est impossible de déterminer des priorités de prononciation valables qui conviendraient à tous les apprenants (90) et j'ajouterais que même cette liste est déjà trop longue pour qu'elle soit vraiment utile à la plupart des enseignants d'*EFL* ou d'*ESP*.

Une approche « consciente » de *ELF* [5.1.b.]

La représentation des locuteurs natifs comme ayant une influence négative (ou du moins injustifiée) imprègne beaucoup de travaux sur *ELF*, posant tout un dilemme aux enseignants de langue maternelle anglaise : pour adopter une approche « *ELF*-aware », doivent-ils modifier leur prononciation pour correspondre au *Lingua Franca Core* (*LFC*) ? Ou doivent-ils simplement utiliser le *LFC* pour établir des priorités dans leurs cours ? Faut-il abandonner complètement le modèle d'un locuteur natif ? Qu'en est-il des autres variétés d'anglais : faut-il les traiter différemment pour la production et la réception ? Heureusement, ce sont précisément ces questions qui ont été traitées au cours des dix dernières années, notamment dans les nombreux articles de Walker parus dans les revues professionnelles des enseignants (atteignant ainsi les enseignants, et pas seulement les chercheurs), mais

¹⁹²« L'obstacle principal à la modernisation de l'enseignement de la prononciation anglaise [...] a été l'échec de la formation des enseignants. En d'autres termes, il s'agit de fournir aux enseignants les faits qui leur permettront de prendre des décisions éclairées dans leur choix de modèles de prononciation, au lieu de les former à reproduire sans conteste un ensemble restreint de techniques. » Texte original: « The major obstacle to the modernising of English pronunciation teaching [...] has been the failure to **educate** teachers. That is, to provide teachers with the facts that will enable them to make informed decisions in their selection of pronunciation models, as opposed to **training** them to reproduce unquestioningly a restricted set of techniques. » (Jenkins, 2000, 199, police en gras du texte original).

aussi dans les travaux de Patsko, Deterding, et d'autres. Ils ont contribué à la diffusion de solutions pratiques pour la salle de classe, par le biais de leurs publications imprimées, de leurs blogs, de leurs ateliers et de leurs webinaires. Walker et Patsko en particulier s'aligneraient plutôt sur « *ELF 3* », qui met davantage l'accent sur ce que l'on peut réellement faire dans les cours, avec une tendance à enseigner les compétences d'adaptation notamment dans un cadre multilingue. Il convient de noter que Walker implique que *tous* les locuteurs devront s'adapter, e.g., les locuteurs natifs devraient chercher à réduire l'usage de la co-articulation, que Cauldwell analyse en détail (2013, 2018). Cependant, dans quelle mesure l'anglais peut-il être parlé sans syllabes non-accentuées et sans voyelles réduites, qui sont cruciales pour maintenir l'alternance rythmique caractéristique de toutes les variétés¹⁹³ ? Une solution consiste à aborder explicitement notre rapport aux accents dans le cadre de la formation, que ce soit avec des enseignants - comme le préconisent Baratta (2017, 2018) et Dupouy (2019) - ou avec des étudiants.

Une approche diglossique [5.1.c.]

L'anglais n'est pas la seule langue à avoir plus d'une seule variété standard tout en restant une langue dans laquelle des individus d'horizons divers peuvent communiquer. Par exemple, des travaux récents sur le norvégien comme L2 (Koreman *et al.*, 2013) montrent comment les apprenants étrangers de norvégien seraient désavantagés s'ils étaient capables de fonctionner uniquement dans une seule variété et parlée dans une seule région. Les décideurs politiques reconnaissent que la maîtrise de toutes les compétences n'est pas nécessaire, et encouragent plutôt la maîtrise d'une variété pour parler, mais de plusieurs variétés pour écouter. Le tuteur d'écoute et d'expression orale assistée par ordinateur (*CALST, Computer-Assisted Speaking and Listening Tutor*) de Koreman et son équipe représente une réponse technologique à cette réalité sociale.

Une approche contextuellement appropriée [5.1.d.]

Dans la Partie II, section 2, j'ai fait valoir que *ELF* est insuffisant comme approche d'enseignement pour mes étudiants *ESP*, même si l'intelligibilité et la compréhensibilité orientent mes objectifs d'enseignement pour eux. La compréhensibilité est une perception de la facilité de traitement de la parole et elle est généralement exprimée soit par une évaluation perceptuelle sur une échelle de Likert, soit par un temps de réaction (où un temps de traitement plus long est assimilé à une compréhensibilité moindre). Les auditeurs pourraient-ils être formés à prendre conscience d'éventuels préjugés subconscients, à appréhender explicitement ce qu'ils trouvent (in)acceptable, et cette prise de conscience aiderait-elle à prévenir certains malentendus ? En d'autres termes, les auditeurs pourraient-ils être formés à rester ouverts aux variations, de sorte que le traitement socio-indexical n'empiète pas sur le traitement linguistique ?

Les jugements d'acceptabilité peuvent également interagir avec la fréquence d'apparition d'une caractéristique, bien que l'utilisation fréquente ne soit pas une condition suffisante ou nécessaire pour l'acceptabilité. L'inverse est particulièrement vrai dans le cas de *FAS* ; le fait qu'une forme soit acceptable ne garantit pas qu'elle sera utilisée fréquemment. Il est possible d'imaginer que les auditeurs pourraient trouver les prononciations accentuées acceptables s'ils y étaient plus fréquemment exposés. Par exemple, avant une mobilité à l'étranger ou au début des cours en format *EMI*, les étudiants pourraient être formés non seulement à mieux faire face à *FAS* sur le plan cognitif, mais cet entraînement pourrait également améliorer leur tolérance à son égard.

La spécificité du contexte s'étend au-delà du système de sons de la L1 dominante d'un contexte d'enseignement, c'est-à-dire du polonais pour Szypra-Kozłowska, du français pour moi. Szypra-Kozłowska fait la différence entre les erreurs globales et locales, ces dernières étant des « mots sérieusement déformés » (2015, 92). Elle soutient que les recherches sur l'intelligibilité (et les exercices de prononciation courants) ont ignoré le puissant impact des erreurs locales, ces « erreurs idiosyncrasiques de prononciation des mots individuels » (93). Au lieu d'examiner uniquement les contrastes segmentaux et les aspects prosodiques au niveau global, il faut également prendre en compte

¹⁹³ Cruttenden mentionne deux exceptions : « Certaines variétés d'anglais, notamment l'anglais des Caraïbes en L1 et l'anglais indien en L2, se caractérisent par une utilisation beaucoup moins importante de syllabes réduites. Le rythme est donc plus proche de celui traditionnellement appelé *syllable-timed*. » Texte original : « Some varieties of English, notably Caribbean English as an L1 and Indian English as an L2, are marked by a much lesser use of reduced syllables, and hence the rhythm is nearer to that traditionally labelled 'syllable-timed'. » (2001, 251)

les unités lexicales spécifiques. Celles-ci pourraient être cruciales dans des contextes spécialisés, qui abondent en termes rares, spécifiques à un domaine et porteurs d'une signification clé ; les cours *ESP* se prêteraient bien à un travail de prononciation sur ces erreurs « locales ».

L'œuf et la poule : les segmentaux et les supra-segmentaux [5.1.e.]

Le débat sur l'importance relative des segmentaux et des supra-segmentaux est également soumis à des facteurs contextuels. Cette dichotomie n'est pas au centre du débat sur l'intelligibilité, non seulement parce ces deux éléments fonctionnent généralement en combinaison, mais aussi parce que, comme l'explique si bien Szypra-Kozłowska, tant de choses dépendent de la langue maternelle des apprenants :

D'une manière générale, il est impossible de savoir lequel des deux aspects phonétiques de l'anglais, segmental ou suprasegmental, est le plus important, car cela dépend largement du degré de similitude/différence entre la langue maternelle des apprenants et l'anglais. Si les segmentaux sont similaires, mais que les suprasegmentaux sont très différents, alors ce dernier sera la principale source de difficultés d'apprentissage et générera des problèmes d'intelligibilité. L'inverse est également vrai. (2015, 113)

Lorsque l'on compare les segmentaux entre eux, les recherches ont montré que pour les apprenants les voyelles anglaises sont plus difficiles à maîtriser que les consonnes. De plus, le fait que les voyelles contribuent plus que les consonnes à l'intelligibilité des mots (Bent, Bradlow & Smith, 2007), pourrait expliquer pourquoi Thomson a choisi de focaliser ses travaux concernant *HVPT* sur les voyelles. La technique *HVPT* a été testée à plusieurs reprises dans un format expérimental contrôlé et toutes ces études ont montré une meilleure maîtrise des voyelles (Thomson, 2018, 215) – une convergence de résultats exceptionnellement rares dans tout domaine de recherche mesurant l'impact des interventions. Les cours *EFL* n'ont pas tendance à fournir une exposition intensive aux segmentaux très variables dans un cadre naturel, car un seul enseignant de langue n'offre qu'une faible variabilité. Les applications *HVPT* pourraient offrir une variabilité plus élevée. Ceci est important, car apprendre à parler et à écouter une nouvelle langue implique de développer un nouvel inventaire phonémique solide dans cette langue, et cela nécessite une exposition à la variabilité.

Pour conclure, les segmentaux et les supra-segmentaux interagissent à des degrés divers, les voyelles étant reconnues comme étant à la fois plus difficiles à maîtriser et plus centrales que les consonnes pour un enseignement basé sur l'intelligibilité. Cependant, la question de savoir « intelligible pour qui ? » se pose à nouveau, car les auditeurs ayant des niveaux de compétence différents ne sont pas tous affectés de la même manière par les segmentaux ou les supra-segmentaux.

Les limites de la notion de charge fonctionnelle [5.1.f.]

La recherche d'un moyen purement objectif pour hiérarchiser les segmentaux dans l'enseignement de la prononciation de l'anglais n'est pas nouvelle, la charge fonctionnelle (CF) étant un critère bien connu mais qui a néanmoins ses limites. L'article de Brown souvent cité, *Functional load and the teaching of pronunciation*¹⁹⁴ (1988), propose un « continuum d'importance » pour classer les contrastes phonémiques (602). Ce classement implique que, le temps d'enseignement étant limité, une plus grande attention pédagogique soit accordée aux contrastes importants, au lieu qu'une attention égale soit répartie sur tous les contrastes possibles. Afin de voir à quel point l'information sur la charge fonctionnelle est limitée, j'ai comparé le classement de Brown aux recommandations de deux autres sources bien connues, concernant les segmentaux à inclure dans l'enseignement de la prononciation aux apprenants francophones d'anglais, à savoir : les traits identifiés par Swan et Smith dans *Learner English* et ceux recommandés dans la *English Pronunciation in Use* de Hancock (2003). Le résultat de cette comparaison est un tableau d'analyse contrastive, basé sur le principe de la *Nativeness* et visant à la prédiction des erreurs (voir Tableau 22 dans le texte source).

Si je priorisais mon enseignement des segmentaux basé uniquement sur ces informations, les fricatives dentales seraient d'une importance moyenne. Cependant, il me manquerait des contrastes que l'expérience de l'enseignement révèle être tout à fait pertinents, par exemple /f dʒ/, /dʒ ʒ/, /h ø/, /r w/ et le diphtongue /əʊ/ souvent remplacée par la séquence des monophthongues /ɒ ʌ/. Par « pertinent »,

¹⁹⁴ La charge fonctionnelle et l'enseignement de la prononciation.

j'entends que les erreurs commises avec ces paires m'ont amenée (en tant que locuteur natif) à mal comprendre l'apprenant, ce qui m'a incitée à classer cette erreur comme importante pour la compréhension et/ou l'intelligibilité. Pour conclure, le simple fait d'être étiqueté comme potentiellement difficile ne signifie pas qu'un contraste sera toujours difficile à entendre ou à produire pour tous les apprenants. Plus important encore, cela ne signifie pas que la réalisation du contraste sera toujours nécessaire ou suffisante pour une communication efficace avec les locuteurs natifs et non-natifs de l'anglais.

Sur le plan pédagogique, la valeur du classement par charge fonctionnelle de Brown est encore plus compromise car il ne comporte aucune indication sur la faisabilité à l'enseignement ('enseignabilité') ou à l'apprentissage ('apprenabilité'), ni ne fournit d'informations sur l'impact des caractéristiques ou des contrastes sur la compréhensibilité, l'intelligibilité ou l'acceptabilité. Ainsi, alors que la création d'une telle grille pourrait éclairer les premières étapes de planification, elle n'aide pas les enseignants à établir des priorités de manière socialement appropriée pour leurs apprenants ou leur contexte. Je soutiens que la détermination de la valeur d'un segment pour l'enseignement de la prononciation exige que nous nous occupions de trois grands aspects :

- sa charge fonctionnelle, y compris sa fréquence d'occurrence dans un domaine spécifique (par exemple, les sciences alimentaires) ou son impact sur la réalisation d'un objet de discours spécifique (par exemple, une conférence) ;
- son impact sur les auditeurs (à la fois le traitement de la parole et leurs réactions attitudinales) ;
- sa capacité à être enseigné et à être appris.

En d'autres termes, il est crucial que les enseignants de prononciation regardent au-delà des caractéristiques linguistiques lorsqu'ils prennent des décisions pédagogiques.

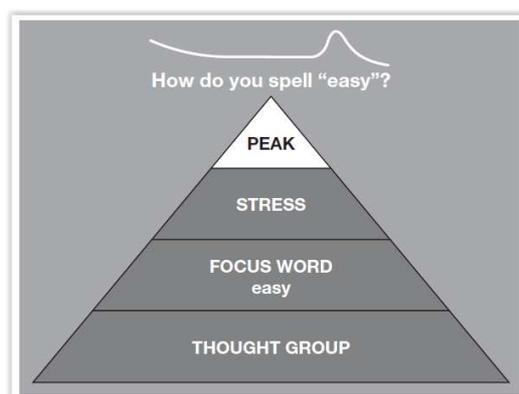
Reconnaître l'importance des supra-segmentaux anglais [5.1.g.]

Un syllabus de prononciation ne peut pas être basé uniquement sur des segmentaux ; même le LFC de Jenkins, qui est dominé par ceux-ci, comprend quelques supra-segmentaux. Comme la charge fonctionnelle ne peut être calculée pour les supra-segmentaux, les enseignants d'anglais ont besoin d'autres sources au-delà de leurs propres intuitions pour guider leurs choix, y compris les jugements des auditeurs sur la force ou le degré de l'accent, la compréhensibilité, l'intelligibilité ou l'acceptabilité par rapport aux caractéristiques prosodiques. Compte tenu de la contextualisation sociale des échanges parlés, deux autres facteurs doivent être pris en compte :

- Premièrement, l'accent est caractérisé par des segmentaux au niveau conscient. Ainsi, lorsqu'on demande aux apprenants, par exemple, « Est-ce que cela sonne plus américain ou britannique », la plupart d'entre eux mentionnent spontanément la <r> rhotique comme une caractéristique marquante de l'anglais américain et certains font remarquer que /ou/ sonne plus américain que /əʊ/¹⁹⁵.
- Deuxièmement, les besoins et les réactions des auditeurs ne peuvent être ignorés, spécialement compte tenu du caractère inconscient des réactions à la prosodie. Au-delà des indications discursives (*sign-posting*) que fournit l'intonation, celle-ci aide également les auditeurs à identifier le positionnement du locuteur, par le biais de de l'intonation exprimant des attitudes.

La pyramide de la prosodie de Gilbert illustre bien l'interdépendance des segmentaux et des supra-segmentaux au sein « d'un système plus large, qui utilise tous ces éléments individuels pour rendre les idées des locuteurs claires et compréhensibles pour leurs auditeurs » (2008, 1).

¹⁹⁵ Basé sur les résultats non-publiés d'une enquête annuelle que j'ai faite chaque année pendant 5 ans au début de l'année universitaire, auprès d'étudiants de 1ère et 2ème année d'anglais (LLCER) et d'étudiants spécialistes d'autres disciplines non-linguistiques, de niveau Licence.



[Figure 4 : La *Prosody Pyramid* de Gilbert (2008, 19)]

Néanmoins, au moins deux questions inter-reliées se posent :

- La pyramide est-elle universellement applicable ? Représente-t-elle adéquatement les inter-relations de niveaux dans d'autres langues que les apprenants pourraient avoir (L1, L2, L3, ...) ?
- Que se passe-t-il si nous visons un éventail diversifié d'auditeurs, auquel cas se pose évidemment la question de « l'intelligibilité pour qui » (Szpyra-Kozłowska, 2015, 115) ? Quels sont les aspects les plus spécifiques à la langue en ce qui concerne l'intelligibilité ? Si les apprenants avaient une L1 différente, la pyramide représenterait-elle au mieux les aspects cruciaux pour l'intelligibilité ?

J'ai tenté de résumer les recherches récentes qui fournissent des données plus détaillées concernant le rôle des supra-segmentaux. Cependant, en termes d'enseignement, il n'est toujours pas clair comment établir au mieux les priorités et les séquences.

Prioriser les traits et les types d'exercices [5.1.h.]

Le format des séquences de prononciation dans les manuels de langue anglaise, qui commence par des segmentaux et introduit ensuite des caractéristiques prosodiques (une approche « ascendante » ou *bottom-up*), contraste fortement avec l'approche « descendante » (*top-down*) préconisée par de nombreux chercheurs anglophones (par exemple Munro et Derwing, 1999 ; Derwing & Rossiter, 2003 ; Field 2005). En ce qui concerne les types d'exercices, une étude comparative des manuels et des cahiers d'exercices des écoles secondaires françaises et polonaises a révélé que seulement 25% des exercices de prononciation portent sur des segmentaux (AH2014_03) ; ainsi, ces manuels ont tendance à suivre une approche plus descendante. Cependant, selon nos données non-publiées concernant les manuels scolaires du primaire, les aspects supra-segmentaux prédominent dans les exercices. Si cela se généralisait, cette situation serait problématique pour les apprenants *EFL* qui auraient un jour à communiquer avec des anglophones et natifs et non-natifs (Szpyra-Kozłowska, 2015, 111). Cependant, les auditeurs non-natifs sont capables de s'adapter tout comme les auditeurs natifs ; eux aussi « ont la capacité d'ajuster, de réviser et de développer leurs représentations existantes lorsqu'ils sont exposés à des déviations systématiques et nouvelles par rapport aux régularités linguistiques familières ». (Saito *et al.*, 2019, 1148). Je soutiens ici que l'alternance entre les approches ascendantes et descendantes est due à une tendance à négliger les auditeurs - leur rôle, leurs besoins, leur responsabilité et leur potentiel d'adaptation - dans l'enseignement de la prononciation d'une L2.

D'une certaine manière, le fait que la communication implique une interaction a été mis de côté. Par exemple, la pyramide de la prosodie de Gilbert est un visuel structurant puissant et utile pour les apprenants adultes de l'anglais, qui peuvent voir comment la prosodie est la base de l'anglais parlé, et elle peut également aider les enseignants à séquencer les caractéristiques. Elle implique que le travail sur la base est le plus susceptible d'améliorer l'intelligibilité d'un locuteur avec des auditeurs nombreux et divers. Cependant, la pyramide est très axée sur la façon de séquencer les exercices qui aident un locuteur à maîtriser une caractéristique. Une autre schématisation utile semble également se concentrer sur les locuteurs, celui du cadre communicatif proposé par Celce-Murcia *et al.* (2010, 45) pour l'enseignement de la prononciation et qui est reproduit ici dans la traduction française que nous en avons fait :

Type d'exercice	Explication
Description & analyse	Descriptions orales et écrites de la manière dont est produit un élément et son utilisation dans le discours oral
Discrimination auditive	Pratique d'écoute centrée sur la capacité des apprenants à discriminer correctement un élément donné
Pratique contrôlée	Travail sur un élément afin d'y sensibiliser l'apprenant, par exemple la lecture orale de phrases intégrant les paires minimales, de courts dialogues, etc.
Pratique guidée	L'apprenant surveille des éléments spécifiés, e.g., exercices de communication structurés, <i>information-gap</i> , dialogues à compléter, etc.
Pratique communicative	L'apprenant porte attention tant à la forme qu'au fond, e.g., exercices moins structurés, permettant de développer la fluidité, tels les jeux de rôle ou résolution de problèmes.

[Tableau 24 : Extrait simplifié du Cadre pour établir une séquence de types d'exercices, adapté de Celce-Murcia et al. (2010, 45).]

Contrairement à la pyramide de Gilbert, cette schématisation n'est pas spécifique à l'anglais et pourrait donc être utilisée avec (et pour) d'autres langues. Il aide les enseignants à voir comment séquencer les types d'exercices pour n'importe quel trait (segmental ou supra-segmental). Lors de formations auprès d'enseignants d'anglais, j'ai pu observer qu'une fois qu'ils avaient analysé les exercices des différents niveaux, ils se rendaient compte qu'ils pouvaient se lancer dans l'enseignement de la prononciation même s'ils ne maîtrisaient pas les symboles phonétiques. En tant que tel, le cadre de Celce-Murcia *et al.* peut renforcer l'identité professionnelle des enseignants. Toutefois, même cette aide ne met pas explicitement l'accent sur les auditeurs.

Principes clés pour former des locuteurs et des auditeurs [5.2.]

Toute formation de locuteurs et d'auditeurs devrait améliorer :

- la capacité des locuteurs à travailler leur prononciation et à y être attentifs ;
- la capacité des auditeurs à traiter aisément *FAS* ;
- l'attitude des deux, face à la variation.

Cette section du document source argumente en faveur d'une prise de conscience tripartite qui devrait informer la construction de telles formations, à savoir la conscience du contexte interactionnel, de la compétence de l'accommodation, et de la différence entre les difficultés et les erreurs.

En cela, je rejoins Hutchinson et Waters (1987) qui considèrent la conception des cours comme négociée et dynamique, et comme étant caractérisée historiquement par trois approches : centrées sur la langue, sur les compétences ou sur l'apprentissage (et non sur l'apprenant). Ils soulignent que le choix de la cible n'est pas sans importance, car il « a une influence déterminante sur les itinéraires possibles » (*ibid.*, 72). Ainsi, bien que les apprenants choisissent leur itinéraire et leur vitesse de déplacement (dans une certaine mesure), ils ne peuvent être le seul centre d'intérêt du processus d'apprentissage.

Conscience du contexte interactionnel [5.2.a.]

Pour améliorer la formation à la communication internationale et interculturelle dans la communauté universitaire, la communication doit être conceptualisée comme une relation de réciprocité, impliquant une responsabilité communicative partagée. Par conséquent, au lieu de se concentrer uniquement sur les caractéristiques de prononciation qui posent des problèmes aux locuteurs,

la formation doit reconnaître que les auditeurs sont des partenaires égaux dans la communication, et les former à ne plus être « le partenaire silencieux », pour reprendre l'expression de Zielinski (2008).

L'interaction qui en résulte entre le traitement de la parole et l'environnement social est bien illustrée par l'étude de Rubin et Smith souvent citée (1990). Dans leur étude, l'exposition limitée d'étudiants américains de premier cycle à des personnes ayant d'autres accents ou appartenant à d'autres groupes ethniques a influencé leurs attentes, et donc leurs perceptions de la parole. Les auteurs affirment toutefois qu'il est naturel qu'ils aient confondu « l'ethnicité orientale avec l'accent ; ils ne proviennent pas de communautés dans lesquelles un certain nombre d'Américains d'origine asiatique de 1ère, 2ème et 3ème génération parlent couramment l'anglais américain standard » (349). Une formation spécifiquement conçue pourrait servir de médiateur, d'autant plus que les résultats corrélacionnels de la même étude l'ont montré : plus les étudiants ont des expériences avec des enseignants non-natifs, plus ils se déclarent satisfaits de l'enseignement de ceux-ci et plus ils se montrent compétents dans le traitement de FAS (1990, 250). Comme les attentes influencent la perception, qui à son tour influence le comportement, la formation pourrait certainement accélérer le processus de changement des attentes des auditeurs - ou, comme pour *HVPT*, accélérer le processus d'adaptation et leur capacité réelle à déchiffrer *FAS*.

Des données plus récentes étayant ces liens proviennent d'une étude réalisée en 2015 par Babel et Russell, qui examinent les attentes et l'intelligibilité du discours des Canadiens blancs (*White Canadians*) et des Canadiens chinois (*Chinese Canadians*), les deux groupes étant de langue maternelle anglaise. Leurs résultats confirment que la perception de l'accent par les auditeurs « n'est pas exclusivement liée au flux de la parole. [...] La capacité des auditeurs à analyser la variabilité phonétique est en partie déterminée par des facteurs non-acoustiques ». (2383). De tels résultats soutiennent l'argument selon lequel l'entraînement à la prononciation des locuteurs doit être accompagné d'un entraînement des auditeurs, afin d'aborder ce lien entre le flux de parole et l'indexation sociale.

Conscience de la compétence de l'accommodation [5.2.b.]

La théorie de l'accommodation de la parole, qui fait partie de la théorie plus large de l'accommodation de la communication proposée par Giles *et al.* (1991), tente de montrer comment la dynamique de la parole peut être comprise à partir d'une perspective de la psychologie-sociale ; par exemple comprendre pourquoi les gens changent leur style de discours lors de rencontres sociales spécifiques et comment l'environnement social influe sur ces choix. La théorie pose deux processus fondamentaux. En convergence, les interlocuteurs cherchent à se ressembler dans un échange, en adaptant leurs comportements, par exemple le débit de la parole, les gestes, les choix lexicaux, et en réduisant les différences sociales entre eux. Ce processus peut être conscient, mais il est souvent totalement inconscient. Le processus inverse, la divergence, se produit lorsque les interlocuteurs mettent l'accent sur les différences. Les deux sont intrinsèquement liés à la position identitaire et aux questions connexes et, en tant que tels, sont tout à fait pertinents pour les interactions impliquant *FAS*.

Les compétences socio-pragmatiques pour l'interaction peuvent être explicitement enseignées, comme le savent les enseignants qui ont travaillé avec des étudiants de diverses nationalités. Moyer plaide pour que les *ITAs* soient formés à ces aspects socio-pragmatiques (Moyer, 2013, 119), ce qui soulève la question de la responsabilité, ou de la « propriété » du problème de la mauvaise communication. Derwing et Munro (2009) font référence à « *familiarity instruction* » comme un moyen d'aider les personnes qui « en raison de leur expérience limitée d'interactions avec des locuteurs de L2, manquent de confiance en leurs propres capacités à communiquer, et donc évitent les situations où elles doivent parler avec des locuteurs de L2 » (487). Cela signifie essentiellement des compétences en communication interculturelle, et en particulier des compétences d'adaptation à la parole, comme le décrivent Rubin et Smith, concernant la nécessité pour les communautés universitaires de mettre en place des formations « qui se concentrent sur les attitudes et les compétences d'écoute des étudiants de premier cycle ainsi que sur la compétence » des *ITAs* (1990, 337). Trente-cinq ans plus tard, leur appel est réitéré par Derwing et Munro, qui le réaffirment :

Le succès de la communication dépend des compétences, des attitudes et des attentes de tous ceux qui participent à l'interaction. [...] Alors que le monde devient plus petit et que les sociétés se diversifient de plus en plus, le besoin de sensibilisation et de changement de point de vue social est plus grand que jamais. On peut l'initier par la mise en place d'une formation à l'écoute dans le cadre d'une formation initiale pour les enseignants, les travailleurs sociaux et toutes les

autres personnes qui dans leur carrière seront en contact régulier avec les utilisateurs de L2. (2015, 172)

Pour conclure, cette section est revenue sur la notion de variation dans le cadre de la compétence du locuteur (Hansen Edwards, 2008, 216), en l'élargissant pour inclure la compétence de l'auditeur. Étant donné la pléthore de variétés de l'anglais qui existent et le grand nombre de permutations imaginables (L1a locuteur + L1d auditeur, L1a locuteur + L2f auditeur, ...), je suis d'accord avec Szypra-Kozłowska pour dire que les solutions doivent être spécifiques aux groupes d'apprenants de L1. Sa proposition 'NELF' (*Native English as a Lingua Franca*) maintient un modèle de locuteur natif au centre, et donne la priorité à l'enseignement de la prononciation

... sur la base des réactions des locuteurs natifs à l'anglais parlé avec un accent étranger. Il est à noter qu'il s'agit d'une entreprise bien plus réaliste que la recherche sur l'intelligibilité qui implique d'innombrables couplages de différentes versions de l'anglais L1, qui, de plus, diffèrent selon le niveau de compétence linguistique de l'apprenant (2015, 115).

Conscience de la différence entre les difficultés et les erreurs [5.2.c.]

Dans l'apprentissage d'une langue étrangère, les difficultés ne deviennent des erreurs que lorsqu'elles entrent en conflit avec la vision du « succès » de l'apprenant ou de l'enseignant : un discours intelligible et donc favorisant une communication « réussie » (perspective basée sur l'intelligibilité), par opposition au « succès » de passer pour un locuteur natif (perspective basée sur la *nativeness*). Malheureusement, prédire les difficultés de prononciation des apprenants de L2 n'est pas quelque chose que nous faisons très bien :

... pas assez bien pour offrir autre chose que des informations le plus souvent peu pertinentes aux enseignants. Cela est avéré lorsque les salles de classe sont homogènes par rapport à la L1, mais lorsque les classes sont linguistiquement diverses, la valeur de la prédiction des erreurs diminue encore davantage. (Munro, 2018, 278).

Munro explique que le fait de se baser sur des listes d'erreurs courantes d'ordre linguistique ne suffit pas pour établir des priorités dans l'enseignement de la prononciation ; il propose deux hypothèses pour expliquer cela, d'une part ce qu'il appelle la fausse supposition d'uniformité (*assumption of uniformity*) et, d'autre part, la supposition d'égalité de gravité (*assumption of equal gravity*). Concernant la première, il s'agit de prendre en compte le fait que l'apprentissage de la prononciation d'une L2 est influencé par de nombreuses variables non-linguistiques, dont l'impact varie selon les individus, et la seconde hypothèse est que « certaines erreurs sont beaucoup plus préjudiciables à la communication que d'autres » (2018, 277-78). Il va jusqu'à conclure que « notre meilleure stratégie est de laisser derrière nous notre fascination pour la prédiction des erreurs » (2018, 278), plaidant pour une action consciente des enseignants et des apprenants.

La vision socio-constructiviste de l'apprentissage et de l'enseignement de la prononciation promue par la plupart des chercheurs cités dans le document de synthèse en anglais, souligne que l'acquisition et l'usage de la prononciation d'une autre langue sont nécessairement situées, car elles sont construites et mobilisées par l'usage de la langue en interaction avec les autres (Lantolf, 2005 ; Vygotsky, 1978). Ce point de vue tend à se refléter dans l'enseignement de la prononciation axé sur l'intelligibilité, et pourtant, dans l'enseignement supérieur français, les principes de *nativeness* et d'intelligibilité (Levis, 2005) coexistent. De plus, je soutiens qu'il serait même contre-productif d'imposer l'un ou l'autre. Le principe d'intelligibilité trouve son origine dans les contextes *ESL*, mais je l'ai utilisé pour un contexte *EFL*, sans l'assimiler à *EIL* ou à *ELF*, car je ne peux pas exclure les spécificités d'un contexte : il ne semble pas déraisonnable de supposer que les étudiants anglicistes seront susceptibles de cibler et d'investir des efforts pour atteindre une prononciation de natif, alors que les étudiants en sciences alimentaires ou en psychologie (*ESP*) seront plus susceptibles de cibler une prononciation intelligible (tout en travaillant peut-être simultanément sous la pression d'un « moi idéal » visant une prononciation de natif).

Les consignes phono-didactiques pour les apprenants L1 français [5.3.]

Être phono-didacticienne en France [5.3.a.]

Szpyra-Kozłowska a inventé le terme sémantiquement transparent de phono-didactique, qui est « synonyme de pédagogie de la prononciation ou d'enseignement de la prononciation [...] et combine la phonétique et la phonologie en un seul mot » (2015, xi). Je l'élargis pour créer l'expression phono-didacticienne, pour étiqueter mon identité professionnelle. Avec mon *Master of Education in TOEFL*, mon doctorat en anglais de spécialité, ma certification par l'Association Internationale de Phonétique (API) et des années d'enseignement et de recherche sur la prononciation, je suis une spécialiste de la didactique et de la pédagogie de l'anglais, notamment en ce qui concerne sa prononciation. Parallèlement, même si je ne suis pas phonéticienne de formation, je dispose de compétences et d'une base de connaissances qui me permettent de communiquer avec les phonéticiens et d'accéder à leurs recherches.

Au cours de la dernière décennie, la France a commencé à produire des recherches sur l'enseignement de la prononciation L2, que ce soit de l'anglais ou du français, en complément avec les recherches théoriques de sa communauté de phonéticiens et de linguistes de renommée internationale. Certaines des recherches sur l'enseignement de la prononciation de la L2 ont été directement liées aux contextes de la langue de spécialité (Brudermann, 2010 ; Diana, 2010 ; Frost, 2008 ; AH2019 ; AH2008_01, _02), tandis qu'un récent document plaide pour une « perspective plus interdisciplinaire entre les domaines du traitement du langage parlé et de l'enseignement des langues secondes » (Detey *et al.*, 2016, 15), et s'efforce d'insérer la phonologie du corpus dans les applications éducatives. D'autres chercheurs s'intéressent à des questions épistémologiques ou didactiques plus larges. Par exemple, un numéro de 2019 de la revue française *Recherches en didactique des langues et des cultures : Les cahiers de l'ACEDLE* a été consacré à la situation actuelle et aux orientations futures de l'enseignement de la phonétique des langues étrangères. Et il n'importe peu qu'aucune des contributions de ce numéro ne porte sur l'enseignement de l'anglais en France. En effet, à nos yeux, le fait prépondérant qui marque une évolution cruciale est la reconnaissance explicite de la nécessité de déterminer l'épistémologie de la didactique de la phonologie des langues étrangères, et, sur cette base, de déterminer quelle place donner à la didactique de l'oral dans la didactique des langues étrangères.

Mes prises de décision vis-à-vis la prononciation dans le contexte français [5.3.b.]

Ayant principalement ses travaux sur les apprenants polonais de l'anglais, Szpyra-Kozłowska a néanmoins espéré que son livre contribuerait à combler le fossé entre les recherches théoriques en phonétique et la pratique de l'enseignement de la prononciation, en présentant une « approche multimodale moteur-cognitive holistique de la phono-didactique anglaise » (2015, viii). Je m'aligne sur ses propos et son approche, en présentant dans cette section des lignes directrices spécifiques à mes apprenants français. Dans la Partie I du document source en anglais ont été fournis les détails de la manière dont, pendant deux décennies, j'ai différencié l'enseignement aux anglicistes de celui aux étudiants d'autres disciplines. Le va-et-vient entre les deux m'a forcée à alterner entre paradigmes, territoires et identités. Cette expérience m'a offert le luxe de pouvoir comparer, contraster et expérimenter deux principes différents qui sous-tendent l'enseignement de la prononciation. Le Tableau 26 énumère les six populations avec lesquelles j'ai travaillé, en tenant compte des questions liées à l'intelligibilité et à l'identité lors du choix des priorités pour l'enseignement de la prononciation.

<i>Population</i>	<i>Objectifs principaux & Traits des participants</i>	<i>Paradigme dominant</i>
Enseignants d'anglais en formation initiale (FI) ou continue (FC)	- FC : améliorer leur prononciation - FI : viser une prononciation assez native (exigences du concours, natif \approx authentique)	Nativeness + Intelligibilité
	Provoquer une prise de conscience des critères pour prioriser les traits dans l'enseignement	
	Plutôt investis	
Etudiants anglicistes	Viser une prononciation assez native ou, du moins, cohérente	Nativeness
	Principalement francophones natifs	
	Ont choisi librement l'anglais (motivation intégrative, probablement bien investis dans leur parcours)	
Etudiants d'autres disciplines	Ajout d'un accent (<i>accent addition</i>) ¹⁹⁶ et amélioration de leur perception auditive	Intelligibilité
	Principalement francophones natifs	
	Souvent l'anglais est imposé/obligatoire (plutôt une motivation instrumentale, rarement très investis)	
Chercheurs et enseignants	Ajout d'un accent (<i>accent addition</i>) et amélioration de leur perception auditive, pour le personnel en contact avec le public ¹⁹⁷	Intelligibilité
	Diversité de langues et cultures d'origine	
	Souvent l'anglais est choisi (probablement une motivation instrumentale, souvent investis)	
Autre personnel universitaire	Ajout d'un accent (<i>accent addition</i>) et amélioration de leur perception auditive, pour le personnel en contact avec le public ¹⁹⁸	Intelligibilité
	Diversité de langues et cultures d'origine	
	Souvent l'anglais est choisi (probablement une motivation instrumentale, peut-être investis)	
Etudiants EMI	Ajout d'un accent (<i>accent addition</i>) et amélioration de leur perception auditive, particulièrement pour le travail en groupe	Intelligibilité
	Diversité de langues et cultures d'origine	
	- Si choisi : peut-être motivation intégrative ; investis - Si imposé/ obligatoire : probablement motivation instrumentale ; peut-être investis	

[Tableau 26 : Populations d'apprenants, leurs traits et les objectifs principaux, le paradigme dominant]

Les 2^{ème} et 3^{ème} colonnes contiennent des détails sur les grands objectifs et les caractéristiques pertinentes de ces populations, ainsi que le principe dominant qui a guidé mes décisions les concernant.

Des universitaires et des enseignants ont assisté à mes cours pour se préparer à enseigner en anglais (EMI) ou parce qu'ils voulaient se préparer à des conférences internationales (la distinction cruciale entre les deux contextes étant le statut du public, étudiants ou pairs, et le ratio probable de membres du public natifs anglophones). En outre, les enseignants et les étudiants des universités ont des identités (ou des rôles) institutionnels différents et disposent donc de formats d'apprentissage différents. Si tous deux peuvent se considérer comme des apprenants - ou être considérés comme tels -, ils seront évidemment à la fois des locuteurs et des auditeurs, issus de contextes universitaires et de cultures différents, et ayant des identités différentes.

¹⁹⁶ On contraste souvent la notion d'ajouter un accent (*accent addition*) avec la notion de réduire un accent (*accent reduction*). Le premier serait l'objectif pédagogique adopté par un enseignant bien formé, et le second un objectif plus répandu dans le milieu des sociétés privées proposant leurs services payants (voir Thomson, 2014).

¹⁹⁷ See Derwing and Munro (2015)

¹⁹⁸ See Derwing and Munro (2015)

Choisir les éléments « de grande valeur » [5.3.c.]

Pour qu'un élément et son utilisation soient considérés comme « de grande valeur » pour ces populations, l'enseignant doit déterminer la valeur de l'élément en question, comme nous le synthétisons dans le tableau suivant :

A) statistiquement fréquent et de grande valeur ... 1. propositionnelle : améliore-t-il l' intelligibilité du locuteur ? 2. sur le plan social : favorise-t-il ou reflète-t-il – des niveaux d'investissement appropriés ? - exprime-t-il un degré approprié de force de l'accent ? - contribue-t-il à l' acceptabilité du discours du locuteur ? 3. sur le plan individuel : favorise-t-il ou reflète-t-il – des niveaux de motivation appropriés ? - améliore-t-il la compréhensibilité du locuteur ?
B) enseignable ;
C) apprenable ;
D) OU une recherche solide, évaluée par des pairs, valide-t-elle l'un des facteurs énumérés ci-dessus, d'une manière adaptée au contexte d'enseignement ou aux apprenants spécifiques ?

[Tableau 27 : Des critères déterminant la valeur des éléments potentiels à enseigner]

Il est impossible d'attribuer dans l'absolu un poids relatif à ces facteurs, car leur importance varie selon le contexte, le groupe et même l'apprenant, et toutes les caractéristiques ne sont pas sous le contrôle conscient du locuteur - tout cela évoluant également avec le temps. Les enseignants doivent assumer la responsabilité de la pondération, principalement parce que cela les oblige à prendre davantage conscience de leurs apprenants et de leur contexte d'enseignement ; c'est essentiel pour être reconnu professionnellement au sein de son institution et du domaine.

La recherche d'un seul Saint Graal de l'enseignement de la prononciation a depuis longtemps été reconnue comme futile, mais il est possible de faire face aux variations de l'anglais parlé, en tant que locuteur, auditeur, enseignant ou apprenant. La formation peut être conçue pour donner aux individus les moyens de faire des choix conscients et informés dans des environnements dynamiques, malgré une diversité d'interlocuteurs et de contextes sans cesse fluctuants. Levis a récemment énuméré six lignes directrices pour établir des priorités dans l'enseignement basé sur le principe d'intelligibilité, en distinguant entre les contextes *ESL* et *EFL* (2018, 186) et en tenant compte des complexités en dehors de la salle de classe. Ses six lignes directrices m'ont amenée à approfondir mes réflexions sur ce que je devrais enseigner et pourquoi. Il me paraît indéniable que ces lignes directrices sont un outil précieux pour les enseignants de langue qui cherchent à affirmer leur identité professionnelle en tant qu'enseignants compétents et réflexifs.

Pour conclure, l'objectif est d'aider les apprenants à amplifier le signal et à réduire le bruit, quelle que soit la variété choisie comme modèle de prononciation. Cela revient à ajouter un accent à celui qu'ils ont déjà et à les aider à développer leur capacité à accepter les variétés et à mieux les traiter au niveau cognitif. Pour utiliser une métaphore botanique, l'ajout d'accent est comme obtenir les avantages de la greffe et de la taille, deux procédures qui aboutissent à un stock plus robuste et/ou à un fruit ou une fleur plus désirable. Le greffage ajoute de nouvelles souches à un arbre ou une plante existante, tandis que la taille supprime les pousses inutiles, les feuilles qui ne contribuent pas au fruit ou à la fleur. La taille et le greffage optimisent les performances de la plante ; de la même façon, l'ajout d'accent peut contribuer à optimiser la communication entre locuteurs et auditeurs. Certaines caractéristiques sont améliorées, d'autres sont rognées, ce qui rend le discours plus facile à traiter et plus agréable à entendre. Par conséquent, je suis maintenant en mesure d'exprimer trois grands principes phono-didactiques :

- Principe 1 : Un travail sur la prononciation d'une L2 doit intégrer le fait qu'il prépare les apprenants aux interactions socioculturelles.
- Principe 2 : L'anglais présentant des variations plurinationales, les compétences d'adaptation sont essentielles, quelle que soit la variété choisie comme modèle cible.
- Principe 3 : Comme l'apprentissage de la prononciation ne peut être dissocié de son contexte social, toutes les erreurs ne peuvent être considérées ou traitées de la même façon - pour et par les locuteurs qui produisent, les enseignants qui aident ou les auditeurs qui comprennent et acceptent.

Partie IV : Recherches Actuelles et Futures

Les Parties I et II ont expliqué mon parcours universitaire et situé mes recherches, expliquant comment les notions d'intelligibilité et d'identité sous-tendent une grande partie de mes recherches. La Partie III a abordé les implications qui en découlent pour l'enseignement de la prononciation. La Partie IV explore la manière dont l'entraînement à la variation est - ou deviendra - intégrée dans mes recherches. Ainsi, je décris les axes et projets de recherche dans lesquels je suis actuellement impliquée et ceux que je souhaite poursuivre ou initier. Plus précisément, dans cette Partie j'explique comment la recherche sur la prononciation de la L2 a atteint sa maturité en tant que domaine. Ensuite, j'explique ma position en tant que phono-didacticienne et son impact sur la façon dont j'agis en tant que chercheuse en phono-didactique. Je termine en présentant tour à tour mes projets de recherche en cours et futurs, regroupés sous les thématiques suivantes :

- La construction d'une phono-didactique
- L'enseignement de la prononciation auprès des étudiants de disciplines non-linguistiques
- La langue orale en L2 : la décrire et tester son impact
- L'impact de l'entraînement à la variation de la langue parlée

Pour les projets futurs, j'indique le profil des collaborations que j'envisage pour chaque thématique de recherche, doctorant, étudiant en maîtrise, autres chercheurs et/ou personnels universitaires divers.

La prononciation d'une L2 : Un domaine de recherche mûr [6.1.]

Diverses mesures montrent que les recherches sur la prononciation d'une L2 n'est plus la pauvre Cendrillon, pour paraphraser le titre de l'article de Lévis (2019), où il énumère les indicateurs suivants : « articles de revues et autres publications, augmentation du nombre d'ouvrages professionnels, augmentation des possibilités de mise en réseau, augmentation de la disponibilité d'autres ressources, puis visibilité récente » (12). Cette section met en évidence certains développements clés, notamment en ce qui concerne les méthodes, les interventions, la prédiction et la diffusion, afin d'identifier les zones où je pourrais apporter des contributions utiles et innovantes.

Les développements méthodologiques montrent indirectement comment le domaine s'est solidement établi :

- une augmentation dans le nombre d'études longitudinales ;
- des données visuelles, par exemple le regard/le suivi des yeux ou des séquences vidéo de hochements de tête, de clignements des yeux et d'expressions faciales lors des interactions ;
- l'utilisation de logiciels (e.g., *IdioDynamic*, MacIntyre, 2012) pour étudier l'évolution des états affectifs et cognitifs tout au long d'une interaction ;
- un plus grand intérêt pour les interactions en général, dans le cadre de l'évaluation et sur le lieu de travail.

Les interventions ici se réfèrent le plus souvent à l'enseignement formel en classe mais peuvent aussi impliquer la formation dans des contextes professionnels spécifiques en dehors du milieu universitaire, comme le personnel des centres d'appel, les travailleurs sociaux ou les ouvriers d'usine (e.g., Derwing & Munro, 2009). Les résultats de cette dernière étude ont montré que la compréhensibilité avait un impact majeur sur la volonté des employés d'interagir avec des collègues ayant une parole accentuée. D'autres recherches se concentrent sur l'observation, la description et l'analyse de l'enseignement de la prononciation, pour tenter de l'améliorer. En outre, le tableau récapitulatif (voir Partie II, Tableau 10 du texte source) montre que déjà en 1998, certaines recherches étaient à visée praxéologique.

Trois études récentes sont mentionnées, car traitant de l'amélioration de nos capacités de prédiction. Bien que ces études fassent progresser le domaine, elles n'abordent pas explicitement le type de prédiction qui intéresserait les enseignants de langues. Il serait pédagogiquement utile de pouvoir prédire et planifier les difficultés potentielles des apprenants dans une certaine mesure, mais - comme

le montre la Partie III - il n'est pas possible de se fier uniquement aux caractéristiques linguistiques (c'est-à-dire uniquement à l'analyse contrastive). Mon point de vue à ce sujet rejoint celui de Munro, à savoir que la prédiction des erreurs n'est pas un objectif constructif à poursuivre, et que « les enseignants devraient investir leur énergie dans l'évaluation des besoins réels des apprenants individuels et les aider à résoudre leurs difficultés les plus importantes en matière de communication » (2018, 278). J'ai identifié cela comme faisant partie des responsabilités professionnelles d'un enseignant de langues, reflétant l'identité qui lui est attribuée : il est censé être capable de prendre des décisions, telles que la hiérarchisation des traits en s'appuyant sur les recherches.

En termes de diffusion des recherches, une liste de 15 publications récentes ou à venir confirme l'abondance de recherches et l'arrivée d'un âge d'or pour les recherches concernant la prononciation d'une L2. Ces auteurs sont des exemples des « *leaders* » que Hambrick et Chen (2008) définissent (dans leur référence aux dynamiques intra-champ et aux relations sociales), comme ces « cohortes et aptitudes distinctes qui constituent un mouvement social universitaire réussi » (2008, 51). Chaque « cohorte » contribue à la différenciation, à la mobilisation ou à la construction de la légitimité du domaine de recherche sur la prononciation de la L2, pour reprendre leur terminologie. Il s'agit désormais d'un domaine légitime distinct au sein de la linguistique appliquée dans le monde anglophone, qui peut soutenir la mobilité de ses membres vers la titularisation, les bourses et d'autres formes de reconnaissance institutionnelle. En outre, la plupart de ces chercheurs participent activement à la diffusion de leurs connaissances non seulement parmi leurs pairs chercheurs, mais aussi dans le cadre d'efforts visant à atteindre un public plus large d'enseignants de langues.

L'un des objectifs de toute recherche dans ce domaine doit être d'engager des échanges plus productifs avec les enseignants intervenant dans les contextes d'*ESL*, d'*EFL* ou d'*EIL*, par exemple en organisant des webinaires, des ateliers ou en incluant des implications pédagogiques claires dans les publications. Cela impliquerait que les chercheurs - qui très souvent ont ou préparent un Master ou un doctorat en linguistique, en sciences de l'éducation ou en psychologie - rendent leurs conclusions plus accessibles et plus utiles aux enseignants de langues, dont beaucoup n'ont peut-être pas les mêmes bases théoriques solides et/ou la même formation expérimentale. Cela exige également des enseignants qu'ils s'intéressent activement à l'actualité et qu'ils discutent de leurs besoins avec les chercheurs. Dans cette section je fais un parallèle avec les obligations éthiques des médecins. Le *Medical Council of Great Britain* (conseil général des médecins de Grande-Bretagne) définit 4 grands domaines de devoirs des médecins, dont le 4ème mentionne explicitement les préoccupations éthiques : « Vous êtes personnellement responsable de votre pratique professionnelle et devez toujours être prêt à justifier vos décisions et vos actions »¹⁹⁹. Je soutiens que cela s'applique également aux enseignants de langues.

L'obligation pour les enseignants de se tenir au courant et de rendre des comptes n'est qu'un aspect de l'éthique dans l'enseignement des langues, un domaine de recherche que je suis de près en France pour trois raisons. Premièrement, la loi française a été modifiée en 2017 pour rendre illégale toute discrimination à l'encontre d'une personne en raison de sa capacité à s'exprimer dans une langue autre que le français²⁰⁰. Ce cadre juridique donne une nouvelle pertinence et urgence à l'inclusion de l'entraînement à la variation dans les politiques linguistiques universitaires. Deuxièmement, la pression pour que les protocoles d'expérimentation et de collecte de données soient approuvés par les comités d'éthique des universités s'est généralisée pour la recherche en linguistique appliquée et en

¹⁹⁹ <https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/good-medical-practice/duties-of-a-doctor>.

²⁰⁰ LOI n° 2008-496 du 27 mai 2008 portant diverses dispositions d'adaptation au droit communautaire dans le domaine de la lutte contre les discriminations. Modifié par LOI n°2017-256 du 28 février 2017 - art. 70. "**Constitue une discrimination directe la situation dans laquelle, sur le fondement** de son origine, de son sexe, de sa situation de famille, de sa grossesse, de son apparence physique, de la particulière vulnérabilité résultant de sa situation économique, apparente ou connue de son auteur, de son patronyme, de son lieu de résidence ou de sa domiciliation bancaire, de son état de santé, de sa perte d'autonomie, de son handicap, de ses caractéristiques génétiques, de ses mœurs, de son orientation sexuelle, de son identité de genre, de son âge, de ses opinions politiques, de ses activités syndicales, **de sa capacité à s'exprimer dans une langue autre que le français**, de son appartenance ou de sa non-appartenance, vraie ou supposée, à une ethnie, une nation, une prétendue race ou une religion déterminée, **une personne est traitée de manière moins favorable** qu'une autre ne l'est, ne l'a été ou ne l'aura été dans une situation comparable."

sociolinguistique. Troisièmement, la linguistique médico-légale a pris son essor en France au cours de la dernière décennie. Ces trois facteurs m'amènent à prédire qu'en France et dans d'autres contextes d'apprentissage d'*EFL*, les questions éthiques seront de plus en plus largement et explicitement abordées tant dans la recherche que dans l'enseignement de la prononciation d'une L2.

Pour conclure, depuis 1995, date à laquelle Munro et Derwing ont publié deux articles explorant la prononciation d'une L2 à travers le filtre de trois concepts, la prononciation d'une L2 a évolué pour devenir un domaine de recherche dynamique et reconnu, avec une nouvelle génération de partenariats prolifiques œuvrant pour approfondir notre compréhension de ce qui fonctionne le mieux, comment et pourquoi. En y revenant récemment, Munro et Derwing déclarent d'ailleurs « Nous avons encore beaucoup de questions, mais beaucoup plus de gens y travaillent maintenant, et notre domaine se développe dans une mesure que nous n'aurions pas pu imaginer en 1993 ». (2020, 1). Dans la section 6.2, je me positionne en tant que phono-didacticienne et j'explique ce que cela signifie de travailler dans cette optique. Cela mène logiquement aux sections 6.3 - 6.5, où j'expose les recherches auxquelles je participe actuellement et ce que j'espère réaliser, afin d'enrichir les connaissances du domaine.

La construction d'une phono-didactique [6.2.]

Comme nous l'avons mentionné plus haut, la notion de phono-didactique a été introduite par Szpyra-Kozłowska (2015). Par extension, dans le document de synthèse en anglais j'ai inventé le terme phono-didacticienne pour désigner l'espace que je revendique pour moi-même au sein du monde de la recherche, même si ce terme n'a aucune valeur institutionnelle dans le système universitaire français. Avoir un label pour soi-même est d'une utilité limitée, s'il n'est pas répandu ou connu, et l'on se demande à juste titre quelles sont les actions menées par une telle personne. Bien que j'aie enseigné à la fois la phonétique et la phonologie, je fais des recherches sur la prononciation : quoi, où, quand, comment, par qui, pour qui et pourquoi. Répondre à ces questions est par nature une préoccupation didactique, car un objectif majeur est d'améliorer les pratiques d'enseignement. Comme je recherche des données sur lesquelles fonder les pratiques d'enseignement de la prononciation de l'anglais L2, afin de répondre au mieux à mes questions de recherche, j'ai besoin de diverses données, provenant de nombreux corpus diversifiés : observations en classe, entretiens, analyses acoustiques, enquêtes et expérimentations. Pour accéder à ces données, je dois donc travailler en étroite collaboration avec des didacticiens, des phonéticiens acoustiques, des sociolinguistes, des enseignants de langues ainsi que des linguistes de corpus. Nous devons négocier un langage commun et respecter les origines et les perspectives épistémologiques de chacun, afin de partager les données et/ou les collecter selon des protocoles conçus conjointement.

Pour conclure, le néologisme « phono-didacticienne » est tout à fait opportun, reflétant un intérêt croissant pour la didactique de la phonologie des langues étrangères en France. La création de ce terme permet également de mettre en évidence la question de savoir où situer la didactique de la langue parlée dans le domaine plus large de la didactique des langues étrangères, en relation à d'autres domaines, telle la sociolinguistique par exemple.

L'enseignement de la prononciation auprès des étudiants de disciplines non-linguistiques [6.3.]

Recherches en cours [6.3.a.]

Mes recherches les plus récentes sur l'enseignement de la prononciation sont plutôt constituées d'études sur des interventions pédagogiques intégrant l'évaluation par des auditeurs, grâce à des collaborations avec des phonéticiens acoustiques en République tchèque et en Pologne. Nous avons l'intention de poursuivre nos partenariats, et ce d'autant plus que nous avons maintenant développé une langue de travail commune.

- ***L'utilisation de voix modifiées (acoustiquement) comme modèles***

Dans un article à méthodes tant quantitatives que qualitatives sur l'auto-imitation en utilisant la propre voix modifiée du locuteur comme modèle d'écoute et de répétition pour l'auditeur (AH2022), nous présentons les résultats d'une intervention, révélant un nouveau potentiel pour l'écoute et la répétition comme technique efficace d'enseignement de la prononciation. Nous avons cherché à modifier la production de caractéristiques liées à la prééminence en anglais L2 par quatre enseignants d'université

de langue maternelle française. Tout d'abord, nous avons modifié acoustiquement certaines parties des productions des participants (en lecture à haute voix) afin de créer des modèles acoustiques pour un protocole d'écoute et de répétition. Ensuite, des données quantitatives (mesures) et qualitatives (commentaires libres de la discussion) ont été recueillies. Nous avons également pu enregistrer les productions, 3 mois plus tard, afin de vérifier la persistance chez les participants d'une prononciation modifiée. Des auditeurs experts (enseignants d'anglais et de prononciation ou de phonétique anglaise) ont comparé une sélection de ces productions aux enregistrements diagnostiques originaux. Ils ont évalué l'*accentedness* au niveau du rythme et des mélodies. Les résultats confirment que l'auto-imitation peut aider les individus à modifier les caractéristiques de leur prononciation liées à la proéminence, que ces modifications peuvent être conservées sur une période de 3 mois, mais que les personnes ne peuvent pas juger de manière fiable ce qu'elles ont modifié.

De nombreux chercheurs semblent converger vers un outil de type Apprentissage des Langues Assisté par Ordinateur (visant spécifiquement la prononciation, et donc *Computer Assisted Pronunciation Training* ou *CAPT*) qui crée automatiquement et/ou exploite un tel *Golden Speaker*. Bien que je n'aie pas les compétences ou les connaissances nécessaires pour poursuivre de manière autonome dans cette veine de recherche, je continuerai à en suivre les progrès et nous envisageons d'autres projets collaboratifs. Par exemple, la réplique partielle de Probst *et al.* (2002) serait une bonne occasion de faire des recherches sur l'utilisation d'un tel outil *CAPT* dans la formation pour *EMI*.

- ***L'imitation d'un accent étranger comme outil pédagogique***

L'imitation d'un accent étranger est une technique d'enseignement puissante dont les résultats sont mesurables et durables, comme nous l'avons montré dans deux publications récentes (AH2021_02, _03). L'intervention pédagogique intègre une approche articulatoire dans une classe d'*ESP* et, en tant que telle, constitue un point d'entrée « physique » inédit où les apprenants peuvent connaître la réussite. Les résultats de production (analyses acoustiques) ont montré peu d'effet de l'imitation, mais les résultats de perception (plus de 200 auditeurs natifs et non-natifs) ont démontré que l'imitation était relativement réussie. Ceci est encourageant car les mesures perceptives sont plus pertinentes pour les futures interactions professionnelles des apprenants de *ESP*. De plus, les participants ont été agréablement surpris de constater qu'ils avaient réussi à modifier leur prononciation dans les conditions d'imitation, suffisamment pour tromper les auditeurs. C'est pourquoi, lors de futures expérimentations, nous aimerions capter les changements d'attitude des participants à l'égard de leurs propres performances.

Recherches futures [6.3.b.]

Mes futures recherches sur l'enseignement de la prononciation comprendront des études de méthodes alliant toujours quantitatif et qualitatif, dont une basée sur les vidéos d'entretiens d'auto-confrontation (*Video Stimulated Recall*). L'extension des recherches sur l'enseignement concernant l'imitation et l'approche articulatoire et impliquant l'évaluation d'auditeurs (AH2021_02, _03), nécessitera une collaboration continue avec des phonéticiens acoustiques. D'autres enseignants de langues pourraient être impliqués, ainsi que des doctorants en didactique des langues ou en linguistique appliquée, par exemple.

- ***La cognition enseignante et la formation des enseignants***

Au printemps 2015, j'ai filmé des enseignants dispensant des cours de prononciation anglaise. Le projet de recherche, basé sur ce corpus, comprend l'analyse de ces moments en salle de cours ainsi que l'analyse des entretiens d'auto-confrontation (*Video Stimulated Recall*) avec ces enseignants. L'analyse de leur discours en réagissant à des moments choisis de leur enseignement nous permettra d'appréhender beaucoup mieux leur identité professionnelle (voir Lousada, 2011) ainsi que leur idéologie linguistique.

- ***Prise de conscience de l'aspect moteur de la prononciation***

Il faut recueillir davantage de données longitudinales pour démontrer dans quelle mesure un travail de prononciation dans un cadre articulatoire aide - et motive - les apprenants à modifier leur prononciation. La prononciation est différente de l'apprentissage du vocabulaire ou de la grammaire, car elle constitue le seul aspect sensori-moteur de l'apprentissage des langues. D'après mon expérience auprès de divers apprenants adultes, beaucoup ont acquis une prononciation L2 plus efficacement

lorsque la conscience sensori-motrice est explicitement exploitée pendant l'enseignement. Empruntant le concept de zone proximale de développement (ZPD) de Vygotsky (1986), je propose un rôle proactif pour les enseignants de langue afin de sensibiliser les apprenants aux traits articulatoires de leur L1, L2 (ou de toute autre langue qui leur est pertinente). En outre, le degré d'auto-observation des traits articulatoires par les apprenants, par exemple avec des miroirs de poche, pourrait faire partie du critère de « l'apprenable » dans la priorisation des traits, e.g., « les lèvres arrondies (similaires au français) mais la mâchoire non serrée pour l'anglais /u:/, ou la nécessité de passer d'une ouverture légèrement ouverte (similaire au français) à une ouverture plus fermée pour /əʊ/ et /ou/ » (AH2021_02).

La langue orale en L2 : la décrire et tester son impact [6.4.]

Cette section décrit deux projets basés sur des corpus : le corpus interlinguistique EIIDA de discours académiques de locuteurs natifs et le corpus IP-CAFES de locuteurs non-natifs. Trois présentations de ces recherches ont déjà été faites dans des colloques et un chapitre de livre a été accepté pour publication.

Recherches en cours [6.4.a.]

- **EIIDA (*Études Interdisciplinaires et Interlinguistiques du Discours Académique*)**

Le corpus EIIDA est l'un des premiers corpus oraux multilingues du langage académique spécialisé. Il s'agit du principal produit d'un projet mené en 2012-17 par S. Carter-Thomas et J-M. Debaisieux. Il a été développé afin de réaliser des analyses linguistiques comparatives sur le discours académique écrit et parlé (articles de recherche *vs* présentations de colloque) et en trois langues - anglais, français, espagnol. Ce format facilite l'analyse de l'impact de la culture linguistique de l'auteur/locuteur sur ces deux modes de communication. De plus, des comparaisons disciplinaires peuvent être faites, car le corpus rassemble des textes de géochimie et de linguistique. En 2019, le sous-corpus anglais a été aligné et annoté de manière prosodique²⁰¹, je peux donc commencer à utiliser EIIDA pour atteindre trois objectifs : révéler les variations dans les modèles de désaccentuation et dans l'utilisation des paratones ; tester les notions pédagogiques sur les pauses ; établir des points de référence pour un corpus similaire de discours académique non-natif, IP-CAFES.

- **IP-CAFES (*Interphonology - Czech, Arabic, French, English and Spanish*)**

Dans l'acronyme *interphonology* (IP) fait référence à notre focalisation sur l'anglais tel qu'il est parlé par les universitaires ayant une des 4 langues maternelles mentionnées. Le projet implique des partenaires en France (pour l'anglais, le français et l'arabe), en République tchèque et en Espagne et l'objectif à long terme est d'améliorer la formation à la prononciation des locuteurs et des auditeurs, afin qu'ils puissent plus facilement participer à *EMI*. Le projet comporte quatre étapes, comme illustré ci-dessous (Figure 8) : enregistrement des cours donnés en anglais non-natif pour créer le corpus, extraction et modification des clips pour les utiliser comme stimuli, création et administration de tests de perception, et enfin, intégration des résultats dans une meilleure formation des enseignants.

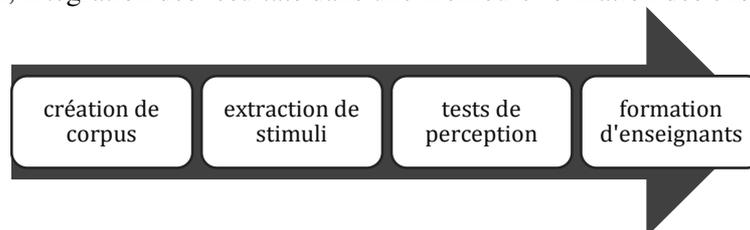


Figure 8 : Les quatre étapes du projet IP-CAFES

D'un point de vue descriptif, le corpus pourrait révéler des variations dans l'acoustique de l'accentuation des mots, ce qui nous permettrait d'approfondir les travaux d'Eriksson et Heldner (2015) sur ce sujet, pour un discours plutôt monologique de type « présentation à un colloque ou en cours magistral ». Les

²⁰¹ Nous avons obtenu un financement du Consortium CORpus, Langues et Interactions (<https://corli.humanum.fr/>) pour faire effectuer ce travail par A. Méli, utilisant SPPAS *Automatic Annotation of Speech* développé par Bigi (2012).

tests de perception nous permettront d'étudier l'impact de *FAS* (e.g., les conférenciers en *EMI* enseignant en anglais L2) sur les auditeurs de différentes L1, y compris les natifs anglophones. Par impact, je fais référence aux quatre concepts examinés dans la Partie II : *accentedness*, intelligibilité, compréhensibilité, et acceptabilité. En manipulant une seule caractéristique, par exemple la durée ou la hauteur, il est possible de contrôler les variables affectant les jugements des auditeurs, de sorte que nous pourrions créer un test de perception en deux étapes (e.g., AH2018) qui comprendrait un extrait modifié. Les corrélations avec les quatre concepts seraient alors plus claires. En travaillant avec des auditeurs francophones natifs, nous pourrions également confirmer et étendre l'étude menée par Holm (2008) sur la contribution relative de l'intonation et de la durée à l'intelligibilité du norvégien en L2.

Recherches futures [6.4.b.]

Diverses voies sont possibles. Par exemple, EIIDA ou IP-CAFES pourraient être explorés pour la variation du stress lexical, ce qui me permettrait d'étendre le travail de mon article de 2010, *A Corpus-based, pilot study of lexical stress variation in American English*. Une autre voie consisterait à explorer d'autres genres de discours spécialisés, tels que les tutorats enseignant-étudiant ou les interactions entre les étudiants et les employés des bibliothèques universitaires. Je décrirai ici brièvement deux autres voies, impliquant toutes deux des corpus spécialisés, l'une à visée pédagogique et l'autre à visée purement descriptive.

- ***HVPT à base de corpus exploitant la technologie Text-to-Speech (TTS)***

L'un des plus grands défis de l'Habilitation à Diriger des Recherches est d'essayer de comprendre comment les fils de ses recherches convergent (ou divergent), et je me suis longtemps demandé comment combiner mes intérêts pour l'enseignement de la prononciation, la prosodie, la langue de spécialité et les corpus. Serait-il possible de créer des corpus parlés spécialisés pour les domaines de *ESP*, par exemple le génie nucléaire ou les sciences alimentaires, afin de les aligner et de les annoter prosodiquement et d'explorer les variations prosodiques entre les locuteurs de différentes L1 ainsi qu'entre les domaines disciplinaires ? La prosodie est-elle une caractéristique qui présente des traits spécifiques à une discipline ? Des caractéristiques spécifiques à une discipline existent pour les corpus écrits, donc en théorie, il pourrait en être de même pour les corpus oraux. Un exemple d'un tel projet est *HVPT* basé sur un corpus, exploitant la synthèse de parole à partir d'un texte écrit (*TTS*) et délivré par un environnement *CAPT*, (Qian, Chukharev-Hudilainen & Levis, 2018). La nouveauté de l'approche de ces chercheurs, outre le fait qu'ils se sont appuyés sur un corpus spécialisé (génie maritime) pour créer des supports de formation, est qu'elle utilise :

une approche computationnelle de la perception utilisant des listes de fréquences de mots basées sur des corpus, un *input* phonétique hautement varié et une technologie de synthèse vocale pour créer automatiquement des exercices de perception liés à la discrimination et à l'identification, adaptés à chaque apprenant. (résumé, 2018, 69)

Comme les auteurs proposent explicitement leur modèle de reproduction, il serait possible d'exploiter les corpus EIIDA et/ou IP-CAFES à cette fin. Ce projet nécessitera une collaboration étroite avec des linguistes et des ingénieurs informatiques ou des pairs en technologie éducative.

- ***Revisiter la notion de charge fonctionnelle avec des corpus spécialisés***

Des corpus spécialisés pourraient être utilisés pour mettre à jour, voire « spécialiser », le concept de charge fonctionnelle. En effet, pour son classement des contrastes, Brown (1988) s'est appuyé sur des données qui ne sont sans doute plus appropriées. Ainsi, les corpus spécialisés fourniraient des données plus valables, par exemple pour voir si certains contrastes sont plus ou moins courants dans des domaines spécifiques.

L'impact de l'entraînement à la variation de la langue parlée [6.5.]

Recherches en cours [6.5.a.]

- *UndOA (Understanding Other Accents)*

UndOA est une tentative de créer un outil en ligne qui aiderait les gens à « entraîner leurs oreilles » et donc à comprendre plus facilement les multivariétés d'anglais, natives et/ou non-natives. Par exemple, avant de se rendre au Japon pour des négociations avec des partenaires brésiliens, un francophone pourrait faire une série d'exercices, en exposant ses oreilles à l'anglais à accent japonais ou l'anglais parlé par un brésilien. Les exercices iraient vers des extraits de plus en plus accentués. L'outil *UndOA* est une version très primitive de *HVPT*, utilisant la parole accentuée non-native comme modèle. Cependant, une version améliorée serait un élément central des sessions de formation interculturelle, par exemple pour préparer les étudiants à une mobilité internationale, à un travail de groupe sur un projet multilingue sur le campus ou *via* une télécollaboration internationale. Elle serait également un complément bienvenu à la formation du personnel, pour améliorer l'accueil et l'intégration des étudiants internationaux. J'aimerais étendre la base de données et les exercices aux variétés du français, avec la collaboration, par exemple, d'un étudiant de niveau master en ingénierie pédagogique. Des recherches au niveau du doctorat dans une perspective sociolinguistique ou de linguistique appliquée seront également possibles, concernant l'efficacité de tels exercices de mise en perspective (voir Vorauer, 2013).

Recherches futures [6.5.b.]

Dans cette section, j'explique d'abord comment j'ai l'intention d'inclure des mesures d'acceptabilité dans les travaux sur *FAS*, puis je décris trois populations avec lesquelles j'espère travailler.

- *Mesurer l'acceptabilité de FAS*

Le concept d'acceptabilité rejoindra trois autres concepts bien établis et déjà présentés (*accentedness*, intelligibilité, compréhensibilité), qui sont essentiels pour mieux comprendre comment les auditeurs perçoivent les discours à accent étranger. Par conséquent, l'acceptabilité doit être intégrée dans l'entraînement à la variation ainsi que dans mes recherches futures. À cette fin, le Tableau 30 présente une version modifiée du tableau de Munro et Derwing (2015, 290) qui résume les configurations possibles pour lesquelles il existe des données empiriques.

<i>Outcome Pattern</i>	<i>Intelligibility</i>	<i>Comprehensibility</i>	<i>Accentedness</i>	<i>Interpretation</i>	<i>Acceptability</i>	<i>Interpretation</i>
1	√	√	√	Optimal. Outcomes 1 & 2 are equivalent. Speaker's utterances are understood more fully and processed more easily by listener.	√	Speaker's utterances are acceptable.
					x	Speaker's utterances are not acceptable.
2	√	√	x		√	Speaker's utterances are acceptable.
					x	Speaker's utterances are not acceptable.

[Tableau 30 : Extrait du Tableau des configurations possibles]

Ma modification comporte deux colonnes ombrées, ce qui ajoute une acceptabilité aux trois dimensions et suggère des hypothèses à tester dans le cadre de recherches futures.

Pour tester ces hypothèses, j'utiliserai des échelles d'évaluations (e.g., échelle Likert) et éventuellement des données de latence de réponse *via* les tests d'association implicite (*IAT*). De plus, les évaluations dynamiques utilisant le logiciel *IdioDynamic* et les entretiens de suivi constitueraient une approche mixte extrêmement productive, permettant de déterminer si les réactions diffèrent en fonction des divergences phonétiques ou phonémiques [voir section 3.2]. J'essaierai de sélectionner un

groupe d'auditeurs parmi les L1 que mes apprenants sont susceptibles de rencontrer, par exemple des auditeurs francophones natifs pour les étudiants de Sciences & Technologies et de STAPS, des auditeurs japonais et brésiliens pour les étudiants en Génie Nucléaire.

- ***Les enseignants en EMI***

L'amélioration de la formation des enseignants pour *EMI* est l'un des objectifs du projet IP-CAFES. Plus précisément, IP-CAFES vise à mettre en évidence la contribution à la compréhension et à la charge cognitive de certaines caractéristiques temporelles et mélodiques, dans des extraits de présentations données en anglais par des locuteurs non-natifs. Une recherche liée à la formation des enseignants de *EMI* est déjà en cours avec un doctorant, F. Picavet, que je co-dirige avec la Professeure Erica de Vries. Il examine la communication entre les enseignants et les étudiants à travers un corpus audiovisuel qu'il a créé comprenant des cours, des travaux pratiques et des tutorats pour les étudiants de maîtrise en ingénierie de l'Institut de technologie de Grenoble suivant un parcours *EMI*. En analysant les sessions et les interactions filmées, il tente d'une part d'identifier les moments de rupture de la communication pour voir comment ils sont résolus, et, d'autre part, de suivre les changements identitaires et les évolutions des compétences linguistiques des enseignants et des étudiants.

- ***Les étudiants en EMI***

Les étudiants bénéficieraient d'une formation d'écoute avant de participer aux programmes *EMI*, avant de partir en mobilité à l'étranger et/ou avant de travailler dans des groupes multilingues, e.g., par un entraînement *HVPT* dans le cadre d'une formation interculturelle. Une version plus avancée de l'outil en ligne *UndOA* - ou une version modifiée de *English Accent Coach* de Thomson - pourrait remplir ce rôle. Les nombreuses possibilités de recherche pourraient inclure l'analyse de l'outil-même, de son utilisation, de l'intervention qui l'accompagne, des réactions des participants, de l'impact longitudinal sur les attitudes ou les compétences, etc. D'autres études sont nécessaires sur la formation interculturelle intégrant la prononciation et destinée aux auditeurs ainsi qu'aux locuteurs. Pour les préparer à une communication réussie, l'enseignement des langues doit reconnaître que la force d'accent (*accentedness*) est indépendante de l'intelligibilité, et que ni l'un ni l'autre n'existe en dehors de leur(s) contexte(s) social(aux).

Les enseignants doivent également prendre la responsabilité d'analyser explicitement leur contexte et leurs apprenants, afin de pouvoir faire des choix pédagogiques appropriés. Par exemple, le style, la fluidité et les attitudes des étudiants face à l'accent « sont rarement abordés dans les classes de langues étrangères : il s'agit d'aspects de la pratique linguistique généralement acquis avec une expérience naturaliste dans la communauté de la langue cible » (Moyer, 2014, 12). Dans les contextes d'apprentissage *EFL* comme en France, il y a encore moins de possibilités de vivre de telles expériences que dans un contexte *ESL*, ce qui renforce certainement la validité (voire l'urgence ?) de les traiter en classe.

- ***Le personnel universitaire non-enseignant et non-chercheur***

Dans le prolongement des travaux de Derwing, Rossiter et Munro (2002) avec des travailleurs sociaux, il me semble évident que le personnel non-enseignant et non-chercheur travaillant dans un environnement universitaire internationalisé/internationalisant pourrait également bénéficier d'un entraînement à la variation, en particulier (mais pas exclusivement) ceux qui interagissent régulièrement avec des locuteurs d'autres langues maternelles, et ce quel que soit leur statut institutionnel. Les membres du personnel s'inscrivent volontiers, et souvent avec enthousiasme, à des cours de formation continue. Une étude pourrait tracer les effets d'une formation à la variation, en comparant (avant et après) la capacité à déchiffrer différentes variétés de la langue parlée en la corrélant avec les modifications attitudinales, via des mesures de la force de l'accent, de la compréhensibilité et de l'acceptabilité. Il serait également intéressant d'apprécier s'il existe une différence entre cette population et les enseignants et étudiants impliqués dans *EMI*, notamment en ce qui concerne les questions d'identité.

Conclusion

L'objectif du document de synthèse est de prouver que je suis capable de superviser des recherches de niveau doctoral. Il s'agit d'un objet de discours étrange - ni une deuxième thèse de doctorat, ni un résumé détaillé de mes publications et autres activités. Sa rédaction m'a obligée à prendre du recul par rapport à mes réalisations, à les analyser de manière critique et à en dégager un fil conducteur. Le texte qui en résulte, présenté ici, révèle comment des éléments potentiellement disparates dans les domaines de la recherche et de l'enseignement se sont complétés pour mettre au jour un tout cohérent qui a guidé, de façon parfois implicite, ma carrière. Dans mon analyse de ce long processus, j'ai pu montrer comment les concepts d'intelligibilité et d'identité sont étroitement entrelacés, tant pour les locuteurs que pour les auditeurs d'une langue non-maternelle, et à quel point la communication aisée est en jeu dans tant d'échanges parlés - au sein du microcosme universitaire mais aussi, sans doute, bien au-delà de celui-ci.

Au début de ce document, j'ai mentionné le travail de Derwing et Munro, dont l'œuvre m'a inspirée et influencée pendant plus de deux décennies. Par une heureuse coïncidence, en août 2020, ils ont publié un commentaire rétrospectif sur leurs travaux originaux des années 1990, ainsi qu'une modélisation statistique actualisée de leurs premières données. Dans leurs "Interprétations rétrospectives", ils demandent que soient effectuées

... plus de recherches axées sur ce que les auditeurs peuvent apporter à la réussite des interactions. [...] Les études qui ont tenté d'aider les locuteurs natifs à communiquer avec les locuteurs non-natifs sont d'une portée limitée ; d'innombrables approches sont possibles mais doivent être explorées. Au cours des vingt-cinq prochaines années, nous espérons que sera mise plus en avant la résolution des problèmes sociaux liés à la parole accentuée, menant à des solutions pratiques. (2020, 23)²⁰²

Mon cœur a fait un bond en avant lorsque j'ai lu ces mots, car ils valident ce que j'ai formulé comme objectifs de recherche plus larges au sein de – et pour – ma communauté spécifique : à savoir une université française. Car il s'agit bien d'identifier ce qui peut améliorer les compétences communicatives de mes apprenants variés en anglais (autant dans le rôle d'auditeur que dans celui de locuteur) et ensuite d'appliquer ces résultats pour concevoir et dispenser un enseignement efficace. Pour y parvenir, il sera essentiel d'ajouter l'acceptabilité au trio de concepts clés (*accentedness*, compréhensibilité et intelligibilité), ainsi que de reconnaître le rôle des auditeurs – c'est-à-dire les facteurs cognitifs et sociaux qui influencent leurs réactions à la parole accentuée. À cette fin, dans mon rôle de phonodidacticienne profondément engagée dans l'amélioration de la prononciation de la L2 et dans la recherche dans ce domaine, je continuerai à poursuivre des recherches combinant des méthodes qualitatives et quantitatives et à collaborer au-delà des frontières disciplinaires. C'est ainsi que je peux contribuer au mieux à répondre à cet appel à l'action.

Pour conclure, on soulignera que nous communiquons de plus en plus fréquemment par audioconférence ou vidéoconférence au sein de la communauté universitaire mondiale et que nous échangeons avec des groupes de personnes d'une étonnante diversité. Les défis posés par un signal acoustique parfois dégradé nous obligent à « nous comporter au mieux » lors des interactions orales. Nous avons maintenant une occasion en or de sensibiliser les auditeurs au rôle important qu'ils jouent en favorisant une communication plus confortable et plus efficace par-delà les variétés de langues, les frontières et les formats technologiques.

²⁰² Texte original en anglais : « ... more research focusing on what listeners can contribute to the success of interactions. [...] The studies that have attempted to assist native speakers to engage with accented speakers are limited in range; countless approaches are possible but need exploration. In the next twenty-five years, we hope to see a stronger focus on addressing social problems associated with L2 speech with practical solutions. » (2020, 23)

Curriculum Vitae in French

Alice J. HENDERSON

Née le 5 février 1967

Nationalités : française, américaine

Qualifiée en 11^e section C.N.U.

Maître de Conférences depuis 2002

En poste à l'Université Grenoble-Alpes (UGA) depuis septembre 2018

Membre du laboratoire LIDILEM, à UGA : <https://lidilem.univ-grenoble-alpes.fr/>

Membre associé du laboratoire LLSETI, à USMB : <https://www.llseti.univ-smb.fr/>

DIPLOMES & FORMATION

- 2004** *Certificate of Proficiency in the Phonetics of English*, International Phonetic Association/University College London.
- 2001** Doctorat, Didactique de l'anglais de spécialité, Université Savoie Mont Blanc. *La lecture de textes en anglais langue étrangère chez des étudiants en sociologie : Implications didactiques d'une perspective socio-cognitive*. Directeur : Prof. Hubert Greven (Université de Savoie). Mention T.H. avec félicitations du jury à l'unanimité.
- 1996** D.E.A. Langue Anglaise des Spécialités, Scientifiques et Techniques, Université de Bordeaux II. *Comparative lexical and discursive analysis of tourist brochures from North America, the UK and France*. Directeur : M. le Professeur Hubert Greven.
- 1993** Master (M. Ed. TESOL Master of Education in Teaching English to Speakers of Other Languages), University of Manchester, Grande Bretagne. *Argumentative structures et strategies in German students' expository writing*. Directrice : Dr P. McEldowney.
- 1989** Licence (B.A. Bachelor of Arts) Littérature et Linguistique Comparée, Boston University, Boston Etats-Unis, University Professors' Program. *A Comparative study of O. Kokoschka's and E. Munch's Visual et Written Works*. Directeur : Prof. Rodolfo Cardona.

Formations complémentaires à Université Grenoble-Alpes

- *Prise de vue / prise de son : être autonome dans le tournage de sa vidéo pédagogique* : mars 2019 (2,5heures), présentiel.
- *Statistiques appliquées à la linguistique, au langage et aux langues sur le logiciel R* : 13-27 juin 2019, 4x3h en présentiel.
- *Les discriminations : comprendre pour agir* : 4 semaines, nov./déc. 2019, MOOC proposé par le CNFPT, diffusé sur la plate-forme FUN.
- *Encadrement éthique de la thèse : Accompagner & former un.e doctorant.e* : 4 jours pleins, octobre 2019 + février 2020, présentiel.

TRAJECTOIRE PROFESSIONNELLE

Le tableau ci-dessous synthétise les emplois principaux que j'ai occupé jusqu'à ma titularisation en 2003, en tant que MCF titulaire à l'Université Savoie-Mont Blanc (USMB) :

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MCF, stagiaire (192h), UFR LLSH, Université de Savoie (UdS)											
ATER 100% (192h), UdS											
Professeure contractuelle, 100% (384h), UdS											
Lectrice d'anglais (192h), UdS											
Lectrice d'anglais, Friedrich-Alexander Universität Erlangen, Allemagne											

ACTIVITE SCIENTIFIQUE

Participation à des projets de recherche financés

UndOA (Understanding Other Accents) IDEX-Formation, Centre de Langues, UGA (2019 -)

J'ai obtenu 5900€ de l'IDEX, attribués pour l'embauche d'une stagiaire, l'achat de matériel et le paiement d'équivalences horaires aux collègues impliqués dans le projet UndOA (*Understanding Other Accents*). Ce projet que j'anime a pour vocation de constituer une base de données d'enregistrements audio de locuteurs non-natifs qui s'expriment en anglais ou en français sur diverses thématiques. Ensuite sera développée une suite d'exercices en ligne pour entraîner l'oreille à la perception et au déchiffrement d'un parler « autre ». Il s'agit de pouvoir améliorer la perception et la compréhension dans des contextes interculturels, qu'ils aient lieu en présentiel ou à distance, avant une mobilité ou une collaboration internationale.

Extension du projet EIIDA (Etudes interdisciplinaires et interlinguistiques du discours académique) (2019)

J'ai obtenu un financement de 3000€ attribués pour l'embauche d'un contractuel, A. Méli, par le consortium CORLI (Corpus, Langues, Interactions, <https://corli.huma-num.fr/>), en réponse à leur « Appel à propositions pour financer la finalisation de ressources linguistiques destinées à être diffusées librement ». Demande préparée avec l'aide de : Nicolas Ballier (PR, CLILLAC-ARP, U. Paris), Achille Falaise (IE, LLF, U. Paris-CNRS), Marie-Paule Jacques (MCF-HDR, LIDILEM, UGA), Shirley Carter-Thomas (PR, LATTICE, CNRS/ENS/Paris 3). L'objectif a été réalisé par M. Méli, à savoir d'ajouter au corpus EIIDA²⁰³ un alignement entre la transcription et l'audio, et d'effectuer une annotation prosodique (sous PRAAT), pour le sous-corpus en anglais.

Scientext : un corpus et des outils pour étudier le positionnement et le raisonnement de l'auteur dans les écrits scientifiques (2007-10)

J'ai participé au projet ANR Scientext (2007-2010), en construisant et alimentant un corpus d'écrits longs d'apprenants francophones d'un niveau avancé d'anglais langue étrangère. Le projet a permis de mettre à la disposition des chercheurs et étudiants un large corpus d'écrits scientifiques de manière à permettre l'étude de leurs caractéristiques linguistiques. Les analyses ont principalement concerné l'étude linguistique du positionnement et du raisonnement à travers la phraséologie, les marques énonciatives et les marques syntaxiques liées à la causalité. Le site Scientext (<https://scientext.hypotheses.org/>) réunit les différentes informations et ressources des laboratoires impliqués dans le projet, à savoir : LIDILEM, LLS, LiCorn, LAIRDIL, Diltec.

²⁰³ <http://www.transfers.ens.fr/eiida-etudes-interdisciplinaires-et-interlinguistiques-du-discours-academique>

Organisation de manifestations scientifiques

Colloque *English Pronunciation : Issues & Practices* (EPIP) (2009, 11, 13, 15, 17, 19, 22)

En 2009, j'ai créé le colloque international EPIP (*English Pronunciation: Issues & Practices*) dont la 6^{ème} édition a eu lieu à Skopje, Macédoine en mai 2019²⁰⁴. En 2022, je ramène EPIP en France, à l'Université Grenoble-Alpes (report de 2021). Chaque édition d'EPIP rassemble 60-85 chercheurs et enseignants de 12-17 pays différents qui se retrouvent pour discuter des axes thématiques suivants : variations phonétiques et changements phonologiques ; variations, variétés et aspects identitaires et sociolinguistiques ; implications pédagogiques de la variation et des variétés ; application des nouvelles technologies à l'apprentissage de l'anglais. Je participe activement chaque fois à l'organisation du colloque et de la publication qui suit.

Journées d'étude

J'ai participé à la création d'une série de journées d'étude concernant l'anglais de spécialité, proposant une caractérisation linguistique, historique et socio-culturelle de l'anglais dans les domaines de spécialités en lien avec la formation ALLSHS. L'objectif est de montrer en quoi l'anglais de spécialité fait évoluer les sciences et constitue, en cela, un adjuvant essentiel de la langue anglaise.

- 2017 : La première JE en janvier 2017 à Toulouse était centrée sur la question « Approche(s) de l'anglais de spécialité de la psychologie et de la philosophie ». La manifestation a été organisée avec ma collègue Frédérique Freund (PRAG) pour le laboratoire LLSETI et avec Linda Terrier (MCF) et Henri LePriault (PR) pour le laboratoire CAS.
- 2018 : En mars 2018 nous avons organisé à l'Université Savoie-Mont Blanc une journée autour de la problématique « Approche(s) de l'anglais de spécialité de l'histoire et de la sociologie ». Deux historiens et une sociologue ont également participé, pour enrichir les questionnements et les perspectives.
- 2019 : Une troisième JE a eu lieu à Lyon le 4 juillet 2019, organisée par Philippe Millot (MCF) et ses collègues au laboratoire CEL, Université Lyon 3. La thématique choisie était « Construction(s) de la compétence en langues de spécialité dans le domaine des arts, des lettres, et des sciences humaines et sociales ». Deux collègues en sciences de l'information et de la communication ont apporté leur vision de la question, car nous tenons à ce que ces journées ne se limitent pas uniquement aux didacticiens de la langue, mais profitent de l'éclairage des utilisateurs de la langue eux-mêmes.

Manifestations pédagogiques

Organisation et/ou participation à de nombreux ateliers pédagogiques et journées d'échange de pratiques entre enseignants, autant en France qu'à l'étranger :

- Depuis 2014 : Organisation de « PronSwap », une journée annuelle d'échanges de pratiques de l'enseignement de la prononciation de l'anglais. 15-25 enseignants de la Région AURA, du secteur public et privé et des niveaux primaire, secondaire, et supérieur. (2014- 2018 à USMB ; depuis 2019 à UGA).
- 2013 : Animation d'un atelier de travail sur la compétence interculturelle à l'Université de Lausanne, Centre de Langues (février). L'objectif était de faciliter l'intégration de la compétence interculturelle dans les évaluations au sein de l'établissement. 35 enseignants de l'enseignement supérieur.
- 2011, 2015 : Co-organisation d'une journée d'échanges de pratiques à l'USMB sur l'utilisation de Moodle dans l'enseignement, « SwapShop ». 30-40 enseignants du supérieur de la Région AURA.
- 2010-2018 : Animation d'ateliers sur l'utilisation de Moodle dans l'enseignement de la prononciation d'une langue étrangère : Université de Bergen, Norvège, mars 2012 ; Université de Lodz, Pologne - déc. 2010 et 2011 ; Université Grenoble-Alpes, France – janv. 2011 ; Université de Murcia, Espagne – mars 2011 ; Ohio State University, USA - oct. 2010.

²⁰⁴ <https://sites.google.com/view/epip2019/home>

Encadrement de la recherche

Encadrement & participation aux jurys de thèse de doctorat

En France actuellement je suis :

- co-encadrante de la thèse de F. Freund, (soutenance prévue 2021), la directrice étant Prof. E. Nissen (UGA, Sciences du langage). *Scénarisation d'une formation hybride en anglais pour spécialistes de psychologie dans le secteur LANSAD : focus sur la production écrite collaborative.*
- co-encadrante de F. Picavet avec une collègue des Sciences de l'Éducation (Prof. E. de Vries, UGA), depuis septembre 2019. *Integrating content and language: A study of English-medium instruction in engineering education.*

Je participe également à trois comités de suivi de thèse :

- D. Bellik (USMB, depuis 2018), *L'impact des outils concordanciers sur le processus rédactionnel chez les apprenants d'anglais.*
- S. Perraud (UGA, depuis 2016), *Enseignement/apprentissage de l'écriture d'articles scientifiques dans le secteur Sciences, Technologie, Santé : une approche sur corpus.*
- E. Bhaniny (Université Toulouse - Jean Jaurès, depuis 2016), *Pour une caractérisation linguistique de l'anglais de spécialité en Sciences Humaines et Sociales : le Cas de la production écrite scientifique en psychologie.*

A l'étranger j'ai :

- co-encadré une doctorante en Pologne (A. Jarosz) avec Prof. E. Waniek-Klimczak, jusqu'à la soutenance en février 2018 de sa thèse *English pronunciation in Polish schools : An action-research approach.*
- participé à deux jurys de soutenance de thèse de doctorat :
 - En octobre 2019 à Tarragon, Espagne, pour L. Quesada Vazquez, « *The Introduction of rhythm instruction in the English as a foreign language classroom, to improve the comprehensibility and fluency of English for specific purposes students* » (Universitat Rovira i Virgili, Tarragona). Le directeur principal était Prof. J. Romero Gallego.
 - En avril 2015, à Nicosia, Chypre, pour M. Kyprianou, « *Teaching and Learning English Pronunciation in Cyprus* » (Université de Chypre, Nicosia). Le directeur principal était le Prof. K.G. Grohmann.

Encadrement & participation aux jurys de Master

Depuis 2003, je supervise des étudiants inscrits en divers *Master* à l'USMB et à l'UGA et je participe régulièrement aux jurys de mémoires.

Encadrement au niveau Master

<i>Année</i>	<i>Titre de mémoire de Master</i>
2019-20	Pertinence d'un test de positionnement européen dans un contexte Canadien, Travaux suspendus en raison de la pandémie (S. Labaye) (M2 FLES)
2018-19	Structuration du socle technologique du projet UndOA (A. Micolod) (Master IdL (Master Industries de la Langue, UGA))
2017-18	Comment améliorer l'apprentissage de la prononciation ? (L. Paravy) La motivation et le travail en groupe (R. Dupessey) (MEEF PLC anglais)
2016-17	Motivation, musique et phonétique en classe d'anglais (C. Henry, 1 ^{er} degré) (MEEF PLC anglais) Comment mettre en place des stratégies qui contribuent à la motivation et au progrès des élèves de 4 ^{ème} dans une classe hétérogène en compréhension orale ? (A. Kirby, 2 nd degré) (MEEF PLC anglais)

<i>Année</i>	<i>Titre de mémoire de Master</i>
	Travailler la motivation des élèves à la production orale : Focalisation sur le rythme (K. Heasman, 2 nd degré) (MEEF PLC anglais) Les problèmes phonétiques et phonologiques chez les apprenants polonais et les apprenants espagnols (W. Mlotek) (M2 FLE)
2015-16	De l'initiation à la phonologie en cours d'anglais dans l'enseignement secondaire (A. Friedsen,) (MEEF PLC anglais) La motivation : Un facteur qui peut déclencher la parole (La motivation et son influence sur l'expression orale en interaction en cours d'anglais) (C.Fox- Boissier) (MEEF PLC anglais) La motivation en cours de langue en classe de 1 ^o STMG (M. Menage) (MEEF PLC anglais)
2009-10	Les étudiants chinois du FLE : analyse de l'enseignement de la prononciation (E. Berthet-Pilon) (M2Pro, FLE & DDL)
2007-08	Le rôle des connecteurs adversatifs dans des écrits longs d'étudiants : Etude comparative en français et en anglais langue étrangère (E. Chevalier) (M2 Sciences du Langage)
2003-04	Le développement de l'interlangue écrite, en italien, chez les apprenants francophones (S. Rutigliano) (Mémoire de maîtrise, LLCE Italiennes)

Participation aux jurys de mémoires de Master

<i>Année</i>	<i>Titre de mémoire de Master</i>
2016	Le jeu/La mise en scène (MEEF 2, Enseignement surdité) LSF et l'acquisition de l'écrit (MEEF 2, Enseignement surdité)
2012-13	Médiathèque française à l'étranger : quel rôle dans l'apprentissage du FLE ? Analyse des besoins fonctionnels de l'Alliance Française de Chandigarh (Inde) et de sa médiathèque (A. Repentin) (M2Pro, FLE & DDL)
2011-12	La survie de la langue galloise dans la société actuelle (L. Giraud) (M2 Recherche, Langues et cultures européennes)
2010-11	Correction phonétique pour un public hispanophone (D. Osario-Chica) (M2 Langues et cultures, FLE & DDL)
2010-11	Interculturalité et apprentissage du français chez les apprenants chinois (W. Ji)
2010-11	Apprentissage du vocabulaire avec des Albanais (D. Capron) (M2 Langues et cultures, FLE & DDL)
2010-11	Les apports de la poésie moderne et contemporaine dans l'enseignement / apprentissage en classe FLE (S. Brunet-Catarinicchia)
2010-11	To what extent do the varieties of English spoken in Aberdeenshire differ from Standard British English? (L. Brancaz) (M2 LLCE Anglais)
2009-10	Le traitement de l'erreur en production orale chez un public lusophone et italophone (G. Calamand-Cadet) (M2 Pro, FLE & DDL) Enseigner le FLE par la vidéo (N. Nastase) (M2 Pro, FLE & DDL)
2009-10	A Humanization of the Atomic Bomb (L. Genay) (M2 LLCE Anglais)
2008-09	Ways of effective L2 vocabulary teaching: classroom study (M. Kislova) (M2Recherche, FLE & DDL)

Membre de sociétés savantes, réseaux, comités de lecture et scientifiques

Membre de sociétés savantes et réseaux (5)

- GERAS (Groupe d'Études et de Recherche en Anglais de Spécialité)
- ARDAA (Association pour la Recherche en Didactique de l'Anglais et en Acquisition)

- ACEDLE (Association des chercheurs et enseignants didacticiens des langues étrangères)
- ALOES (Association des anglicistes pour les études de langue orale dans l'enseignement supérieur, secondaire et élémentaire)
- Réseau SUPRAS (accessible uniquement sur nomination) : groupe international de 130 chercheurs intéressés par la prosodie. Recherches théoriques et pratiques.

Membre de comités de lecture (2)

- Revue *LIDIL*, Université de Grenoble III/Stendhal, France. (<http://lidil.revues.org/>).
- Revue *RPLLS* (<https://apliut.revues.org/?lang=en>).

Membre de comités scientifiques de manifestations (3)

- Conference ELE (*Exploring Language Education*), Stockholm University, 18-20 juin 2018. <https://www.isd.su.se/english/exploring-language-education-ele-local-and-global-perspectives>.
- CEDIL (*Colloque d'étudiants chercheurs en didactique des langues et en linguistique*) 2018, 2014, 2010, 2006
- *Journées Doctorales LLSETI, USMB* (12 octobre 2017)

Membre de comité scientifique au Rectorat

Depuis octobre 2017, je fais partie du comité scientifique du Rectorat de l'Académie de Grenoble, piloté par Maxime Lachèze (IA-IPR d'anglais, coordonnateur académique du dispositif EMILE/CLIL) sur l'enseignement bilingue dans le système scolaire. Visites de classes EMILE en Savoie (niveau collège et lycée). Création, diffusion et analyse d'un sondage auprès des enseignants de l'Académie, en collaboration avec Coralie Payre-Ficoud (MCF, UGA). Les résultats ont été présentés lors de la Semaine Nationale des Langues, 14-18 mai 2018.

Publications et communications

Articles dans des revues internationales avec comité de lecture (12)

- Henderson, A. et R. Skarnitzl. (à paraître, 2022). « 'A better me': Using acoustically modified learner voices as models ». *Language Learning & Technology*, 26/1. University of Hawaii & University of Texas at Austin (<https://www.iltjournal.org/>).
- Henderson, A. (2016). Review of Reed, M. et J. Levis (dirs.) (2015). *The Handbook of English Pronunciation*. Hoboken, NJ: John Wiley et Sons. ISBN 978-1-118-31447-0. *International Journal of English Studies*, vol. 16 (2), 2016. pp. 103-107.
- Henderson, A. (2015). Review of Szpyra-Kozłowska, J. (2015). *Pronunciation in EFL instruction: A Research-Based Approach*. Bristol, UK: Multilingual Matters. 249pp. ISBN-13: 978-1-78309-260-4 (pbk). *Journal of Second Language Pronunciation*, Vol. 1, n°2. 282-285. DOI : 10.1075/jslp.1.2.08hen
- Henderson, A. (2015). Review of Rogerson-Revell, P. (2011). *English Phonology and Pronunciation Teaching*. Continuum: London. *Journal of the International Phonetic Association*. 45/3. 316-319.
- Henderson, A. (2015). « Smoothie or Fruit Salad? Learners' Descriptions of Accents as Windows to Concept Formation », *Research in Language*, 13/1, pp. 1-20. DOI 10.1515/rela-2015-0009.
- Henderson, A., Curnick, L., Frost, D., Kautzsch, A., Kirkova-Naskova, A., Levey, D., Tergujeff, E., et E. Waniek-Klimczak. (2015). « Pronunciation in an EFL setting: What's going on inside and around European classrooms? », *Speak Out! IATEFL PronSIG Journal*, 52, pp. 49-58.
- Henderson, A. (2014). Review of Cauldwell, R. (2013). *Phonology for Listening: Teaching the Stream of Speech*. Birmingham, UK: Speech In Action. *Journal of the International Phonetic Association*. 44/2. 180-182.

- Henderson, A. et Jarosz, A. (2014). « Desperately seeking a communicative approach: English pronunciation in a sample of French and Polish secondary school textbooks », *Research in Language*, 12/3, pp. 261-278. DOI 10.2478/rela-2014-0015.
- Henderson, A. (2012). Review of Hancock, M. (2012). *English Pronunciation in Use (Intermediate)*. Cambridge, UK: Cambridge University Press. *Journal of the International Phonetic Association*, 42/3. 331-332.
- Henderson, A., Frost, D. et al. (2012). « The English Pronunciation Teaching in Europe Survey (EPTiES): Selected results », *Research in Language*, 10/1, pp. 5-27. DOI 10.2478/v10015-011-0047-4.
- Henderson, A., (2010), « A Corpus-based Study of Lexical Stress Variation in American English", *Research in Language*, 10/8, pp. 1-15. DOI 10.2478/v10015-010-0002-9.
- Henderson, A. et R. Barr (2010). « Comparing indicators of authorial stance in psychology students' writing and published research articles », *Journal of Writing Research* 2 (2), pp. 245-264. <https://doi.org/10.17239/jowr-2010.02.02.8>.

Articles dans des revues nationales avec comité de lecture (9)

- Henderson, A. & A. Rojczyk. (à paraître, 2021). « Exploiting foreign-language accent imitation in pronunciation instruction ». *Les Langues Modernes (Thématique : Démarches et outils pour l'enseignement de la prononciation en classe de langue)*, Abou-Haidar, L. (coord.), n°3.
- Frost, D., Abou-Haidar, L., Henderson, A. & J. Wilhelm. (à paraître, 2021). « Le projet IP-CAFES : réactions au discours académique de non-anglophones ». Actes du colloque DIPLAPLU "Didactique des langues & plurilinguisme(s) : 30 ans de recherches", 14-15 novembre 2019, UGA, Grenoble. Numéro spécial de la revue *Recherches en didactique des langues et des cultures - Les cahiers de l'Acedle*.
- Henderson, A. (2020). Review of Richter, K. *English-Medium Instruction and Pronunciation: Exposure and Skills Development*. Bristol, UK : Multilingual Matters. ISBN 9781788922456. *Recherche et pratiques pédagogiques en langues de spécialité – Cahiers de l'APLIUT*.
- Henderson, A. et R. Cauldwell. (2020). « Jungle Listening: A Course in Decoding English for University Students ». *ASp, la Revue du GERAS*, 77, pp. 63-77.
- Henderson, A. (2019). « Training for English-Medium Instruction in French Higher Education : Keeping Pronunciation in Focus », *Recherche et pratiques pédagogiques en langues de spécialité*, 38(2). <http://journals.openedition.org/apliut/7402>.
- Frost, D. et Henderson, A. (2013). « Les résultats du sondage EPTiES (English Pronunciation Teaching in Europe Survey) : Un Aperçu des pratiques de l'enseignement de la prononciation dans plusieurs pays européens vu par les enseignants », *Les Cahiers de l'APLIUT : Les langues de spécialité en Europe*, 32/1, pp. 92-113.
- Henderson, A. (2008). « Towards Intelligibility: Designing Short Pronunciation Courses for Advanced Field Experts », *AsP*, 53/54, pp. 89-110.
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- Henderson, A. (2000). « Les réactions face aux mots inconnus : la part de l'affectivité », *LIDIL : L'enseignement / Apprentissage du lexique*, n°21, pp. 141-153.

Ouvrages (3)

- Kirkova-Naskova, A., Fouz-Gonzalez, J. et A. Henderson (en préparation, publication prévue mars 2021). *English Pronunciation Instruction : Research-based Insights*. John Benjamins.
- Henderson, A. (2015). *Say It Again, Please: English Pronunciation Exercises*, Université Savoie Mont Blanc, Chambéry, collection "Corpus" du LLSETI, ISBN 978-2-919732-43-2. (149 pages).

<http://www.sayitagainplease.fr> [site pour accompagner le manuel].

- Henderson, A. (Ed.), (2010). English Pronunciation: Issues and Practices (EPIP): Proceedings of the First International Conference. June 3-5 2009, Université de Savoie, Chambéry, France, Université de Savoie, ISBN 978-2-915797-73-2. (246 pages).

Chapitres dans des ouvrages collectifs (12)

- Henderson, A. & A. Rojczyk. (à paraître, 2021). « Foreign-language accent imitation: Matching production with perception », dans Jarosz, A. & V. Sardegna (dirs.). *English Pronunciation Teaching: Theory, Practice, and Research Findings*. Multilingual Matters.
- Frost, D. & A. Henderson (à paraître, 2021). « The IP-CAFES project: reactions to foreign accented English academic discourse », dans Kirkova- Naskova, A., Fouz-Gonzalez, J. et A. Henderson (dirs.). *English pronunciation instruction: Research-based insights*. John Benjamins.
- Volin, J., Skarnitzl, R. et A. Henderson, (2018). « Perceptual impact of foreign-accented speech », dans Volin, J. et R. Skarnitzl (dirs.), The Pronunciation of English by Speakers of Other Languages. Cambridge Scholars Press: Newcastle-upon-Tyne. pp. 73-94. ISBN-10: 1527503909
- Henderson, A., Frost, D. et al. (2015). « English pronunciation teaching in Europe: Inside and outside the classroom », dans Mompean, J.A. et J. Fouz (dirs.), English Pronunciation: Issues and Practices. pp. 260-291. Cambridge Scholars Press: Newcastle-upon-Tyne.
- Henderson, A. (2014). « Takes Two to Tango: Research into accent, comprehensibility and intelligibility and implications for CLIL », dans Szubko-Sitarek, W. et al. (dirs.), Second Language Learning and Teaching, Springer International Publishing: Lausanne, Switzerland, pp. 63-79.
- Henderson, A. (2014). « Le positionnement à travers la mention de l'auteur dans les écrits universitaires anglais d'étudiants français de premier cycle : Implications pédagogiques », dans Tutin, A. et F. Grossmann (dirs.), L'écrit scientifique : du lexique au discours. Presses Université de Rennes : Rennes, pp. 131-147.
- Henderson, A. (2013). « The English Pronunciation Teaching in Europe Survey (EPTiES): Initial results et useful insights for collaborative work », dans Waniek-Klimczak, E. et L. Shockey, (dirs.), Teaching and researching English accents in native and non-native speakers, Springer Verlag: Berlin Heidelberg, pp. 123-140.
- Kirkova-Naskova, A., Tergujeff, E., Frost, D., Henderson, A., Kautzsch, A., Levey, D., Murphy, D., Waniek-Klimczak, E. (2013). « Teachers' views on their professional training and assessment practices: Selected results from the English Pronunciation Teaching in Europe survey », Dans J. Levis et K. LeVelle (dirs.). Proceedings of the 4th Pronunciation in Second Language Learning and Teaching Conference, Aug. 2012. Iowa State University, pp. 29-42. Disponible à https://apling.engl.iastate.edu/alt-content/uploads/2015/05/PSLLT_4th_Proceedings_2012.pdf.
- Henderson, A. (2008). « Short Course Focus on Intelligibility: What type of progress is possible? », dans Waniek-Klimczak, E. (dir.), Issues in Accents of English, Cambridge Scholars Press: Newcastle on Tyne, pp. 252-271.
- Henderson, A. (2004). « Use of meta-cognitive strategies in L2 reading: Can I use my favorite old Husqvarna to cut the trees that hide the forest? », dans Simon, J-P. et F. Grossmann (dirs.), Lecture à l'Université : Langue maternelle, seconde et étrangère, Peter Lang: Bern, pp. 87-102.
- Henderson, A. (2000). « The society words keep : teaching applications of an English sociological corpus », dans Lewandowska-Tomaszczyk, B. et P.J. Melia (dirs.), PALC '99: Practical Applications in Language Corpora, Papers from the International Conference at the University of Lodz, 15-18 April 1999, pp. 489-499.
- Henderson, A. (1998). « Creating and using a bilingual terminological database with ESP students », dans Grundy, P. (dir.), IATEFL 1998: Manchester Conference Selections, IATEFL: Kent, pp. 102-103.

Conférences à titre d'invitée

Invitée aux Colloques Internationaux et Nationaux (4)

- (2021, report d'octobre 2020). « Teaching English pronunciation in a communicative framework: Principles, tools and techniques », Atelier, *The Nordic Network of L2 Pronunciation*. Mars 2021, Linköping, Suède.
- (2018). « L'apprentissage des codes de l'oral en LVE : Comment s'y prendre ? ». Formation des enseignants-formateurs en LVEs. Rectorat de l'Académie de Grenoble/Lycée Champollion, Grenoble, France. 18 octobre 2018.
- (2018) « EMILE dans l'internationalisation de l'enseignement supérieur français : La prononciation encore et toujours orpheline ? ». Séance plénière lors du colloque APLIUT, IUT Toulouse-Université Paul Sabatier, 31 mai – 2 juin 2018.
- (2017) « Accented speech and English-medium instruction: What can teachers and students do? ». Séance plénière au colloque international EPIP5 (*English Pronunciation: Issues & Practices*), Université de Caen, Normandie, 17-19 mai 2017.

Participation aux Tables Rondes (2)

- (2015). Participation à Table Ronde, Séminaire Public Kinéphones (INNOVA Langues) « Un prototype pour découvrir, prononcer, lire et écrire les sons des langues », Université Stendhal – Grenoble 3/Maison des Langues, 7 mai 2015.
- (2011). Participation à Table Ronde, Journée d'études ACEDLE « Recherches émergentes en didactique des langues », Université Stendhal – Grenoble 3, 31 mai.

Invitée aux Séminaires Internationaux et Nationaux (11)

- (2018) « Issues in intelligibility and specialized discourse », Séminaire dans le cadre du Master d'Enseignement Bilingue, Universidad Catolica, Murcia, Espagne, 16 mars 2018.
- (2017) Avec Skarnitzl, R. « Foreign-accented speech et discrimination basée sur la langue dans l'enseignement des matières en anglais à l'université ». Séminaire LIDILEM axe 2, Université Grenoble-Alpes, 23 mai 2017.
- (2016 - 2018). Séminaires, Université d'Utrecht :
 - English in France: Roles et Attitudes
 - Teaching English Pronunciation in France
 - CLIL: Training Teachers and Learners
- (2016) « Language Policy: What, where, why, how, who ». Présentation lors de la séance de clôture de projet franco-norvégien, dirigé par Mme L. Abou-Haidar, Université Grenoble-Alpes, 31 mars 2016.
- (2016) « Les enjeux de l'EMILE : Formation des étudiant.e.s et des enseignant.e.s ». Séance plénière lors de la 7ème Journée Thématique du Réseau LSP Grenoble, Université Grenoble-Alpes, 10 juin 2016.
- (2010). « Moodle & Foreign Language Teaching », Workshop, Institute of English, Université de Lodz, Pologne, 8 décembre.
- (2010). « Moodle in teaching English pronunciation », Workshop, Spoken English Program, Ohio State University, 27 octobre.
- (2008). « Pronunciation Teaching: Intelligibility & Goals », séminaire à SEP (Spoken English Program), Ohio State University, 30 octobre.
- (2006). « PAROLE : A parallel learner corpus of spoken language », séminaire à l'Ohio State University, 30 octobre.

Participations à des colloques internationaux (16)

- Henderson, A. (accepté, reporté à 2021) PSLLT (Pronunciation in Second Language Learning and Teaching) 12ème colloque international, 17-19 juin, Brock University, St Catharine's, Ontario.
- Falaise, A. et A. Henderson (2020). « EIIDA's Second Life : Préparer un corpus multilingue oral à des transpositions didactiques futures » RADELAS (Ressources linguistiques, méthodes & applications didactiques en langues de spécialité), Université Grenoble-Alpes, France, 20-21 février.
- Henderson, A. (2019). « Foreign-accented speech (FAS) in a university context: A pilot study of training for intercultural interactions », Présentation à Accents2019, 13th International Conference on Native and Non-native Accents of English, Université de Lodz, Pologne, 12-14 décembre.
- Frost, D., Henderson A., et J. Wilhelm (2019). « Le projet IP-CAFES : réactions au discours académique de non-anglophones », Présentation au colloque ACEDLE « Didactique des langues & plurilinguismes : 30 ans de recherche », Université Grenoble-Alpes, France, 14-15 novembre.
- Frost, D. et A. Henderson, (2019). « Perception, comprehension and judgement of foreign accented English academic discourse: What exactly is the problem? », Présentation à EPIP6 International Conference on English Pronunciation: Issues & Practices, Ss. Cyril and Methodius University, Skopje, Republic of North Macedonia, 17-19 mai 2019.
- Henderson, A., Volin, J. et R. Skarnitzl, (2016). « Perceptions of foreign-accented lecture-style speech: Contributing to evidence-based language policy ». Présentation à l'atelier ARDAA lors du Congrès de la SAES, l'Université Jean Moulin Lyon 3, le 2-4 juin 2016.
- Henderson, A., Volin, J., et R. Skarnitzl (2016). « They can't even speak properly: Investigating the perceived competence of foreign-accented teachers ». VALS-ASLA (Colloque annuel de l'association Suisse de linguistique appliquée), Université de Genève, 20-22 janvier.
- Henderson, A. (2015). « Filmer une classe et interviewer après : Exposer l'agir professoral ». Atelier de Travail (Think-aloud protocols and metacognition: exchanging practices), Colloque AFLiCO6 Language, Cognition and Society (2015), Université Stendhal – Grenoble 3, 26-28 mai 2015.
- Henderson, A. (2012). « Accents of English in on-line gaming and the incidental acquisition of L2 pronunciation », Accents2012: Accents in Contact, 6th International Conference on Native and Non-native Accents of English, Université de Lodz, Pologne, 5-7 décembre.
- Henderson, A. (2012). « Pedagogical implications of a survey of accentedness, comprehensibility and intelligibility », GERAS, (colloque annuel du Groupe d'Etude et de Recherche en Anglais de Spécialité), Université Stendhal – Grenoble 3, 15-17 mars.
- Henderson, A. (2011). « Comparing European approaches to pronunciation teaching and learning », Workshop, SILC (Summer Institute 'Languages & Cultures in Contact/In Contrast'), Université de Savoie, 5-17 septembre.
- Henderson, A. et al, (2009). « SCIENTEXT: A Corpus of French and English Scientific & Academic Texts », BAAL (congrès annuel du British Association of Applied Linguists), Université de Newcastle, Angleterre 3-5 septembre.
- Henderson, A., Bourgade, S., et al., (2009). « Activités et Interactivité », Moodlemoot (congrès annuel et international de la communauté francophone d'utilisateurs de la plateforme électronique Moodle), INSA, Lyon, 22-24 juin.
- Henderson, A. (2008). « Corpus-based L2 Writing Instruction: Raising Awareness of Plagiarism & Authorial Positioning », EARLI-SIG Writing (European Association for Research on Learning and Instruction), Université de Lund, Suède, 11-13 juin.
- Henderson, A. (2008). « Prioritizing English pronunciation teaching for short courses: realistic goals and strategies », colloque international Global English, Università degli Studi di Verona, Italie, 14-16 février.
- Henderson, A. (2008). "Towards Intelligibility: Designing Short Pronunciation Courses for Advanced Field Experts", Colloque annuel GERAS, Université d'Orléans, 12-15 mars 2008.

Communication dans des manifestations sans comité de lecture (4)

- Henderson, A. (2018). « Résultats d'enquête auprès d'enseignants d'histoire et de sociologie », Présentation à la Journée d'étude Approche(s) de l'anglais de spécialité de l'Histoire et de la Sociologie, à l'Université Savoie – Mont Blanc, 2 mars 2018. Organisée en collaboration avec Linda Terrier (MCF) et le Professeur Henri LePriault de l'Université Toulouse-Jean Jaurès.
- Freund, F. et A. Henderson, (2017). « Approche didactique de l'anglais de la psychologie pour l'appropriation de l'écrit scientifique spécialisé », Présentation à la Journée d'étude Approche(s) de l'anglais de spécialité de la psychologie et de la philosophie, à l'Université Toulouse-Jean Jaurès, 6 janvier 2017. Organisée en collaboration avec Linda Terrier (MCF) et le Professeur Henri LePriault de l'Université Toulouse-Jean Jaurès.
- Henderson, A. (2008). « Positionnement auctorial en psychologie : articles de recherche et écrits d'étudiants », Journées d'étude nationales : Positionnement et raisonnement dans les écrits scientifiques, dans le cadre de l'ANR Corpus et outils de la recherche en Sciences humaines et sociales (projet Scientext) et du Cluster de recherche 14 Enjeux et représentations de la science, de la technologie et de leurs usages. Organisée par le LIDILEM (E.A. 609), Maison des Sciences Humaines, Université Stendhal-Grenoble 3, Gières, 19-20 juin.
- Henderson, A. et R. Barr, (2007). « 'Casser' CLAWS et TreeTagger : Essais avec un corpus d'apprenants », Journée Cluster 14 « La construction du savoir dans le discours scientifique. Les structures linguistiques du positionnement et du raisonnement », Université Stendhal Grenoble III, France, 19 juin.

Vulgarisation de la recherche (3)

- 2015, 2016 : Co-organisation d'une journée d'étude « grand public » sur la politique linguistique, à l'occasion de la Journée européenne des langues en septembre. Avec Ute Lemke (MCF, 12^{ème} section). Obtention de 1000 € de la part du laboratoire LLSETI.
 - 2015 thématique : Langues : Moyen de rapprochement des peuples ?
 - 2016 thématique : Langues, Immigration et Intégration
- 2009 : Trois conférences « grand public » dans le cadre du cycle de conférences scientifiques *Amphis pour Tous*, Université de Savoie sur le sujet « Speak English ? Oui, mais lequel ? ». Manifestation mensuelle où les chercheurs sélectionnés présentent un aspect de leurs recherches au grand public lors de 3 soirées-rencontres. Chambéry, Annecy et Thonon-les-Bains. (mars et avril).

ACTIVITES D'ENSEIGNEMENT

Les trois tableaux qui suivent comptabilisent mes heures d'enseignement aux niveaux Licence et Master de septembre 2001 – mai 2021.

A l'Université Grenoble-Alpes depuis septembre 2018, j'effectue la totalité de mon service en dispensant des cours d'anglais de spécialité auprès d'étudiants non-linguistes, secteur STS (Sciences, Technologies et Santé) :

<i>Niveau</i>	<i>Filière</i>	<i>Présentiel (TD)</i>
Licence	STAPS, NIPAS (agro-alimentaire), S&T	431h
Master	Ingénierie Nucléaire	78h
TOTAL		509h

Enseignements en anglais en heures EqTD, 2018 - 2020 à UGA

A l'Université Savoie-Mont Blanc la moitié de mon service concernait les cours d'anglais de spécialité auprès d'étudiants non-linguistes, secteurs SHS (Sciences Humaines et Sociales), avec un fort investissement dans l'enseignement hybride (avec la plateforme Moodle) :

<i>Niveau</i>	<i>Filière</i>	<i>Présentiel (TD)</i>	<i>A Distance</i>	TOTAL
Licence	Histoire, Philosophie, Psychologie (dont Licence Pro Education pour la Santé), Sociologie	1118h	980h	2098h
Master	Histoire, Psychologie, Sociologie	466h	380h	846h
TOTAL		1584h	1360h	2944h

Enseignements en anglais en heures EqTD, 2001 - 2018 à USMB

En contraste, j'ai assuré des enseignements de phonétique, phonologie, prononciation, expression orale et politiques linguistiques (TP, TD et CM) dans mon service effectué auprès d'étudiants linguistes des filières LLLCER et LEA, en m'appuyant sur Moodle uniquement comme support de communication et stockage :

<i>Niveau</i>	<i>Matière</i>	<i>Présentiel (TD)</i>
Licence	Phonétique, Phonologie, Prononciation, Maîtrise de la Langue	1591h
Master	Phonétique, Phonologie, Prononciation, Maîtrise de la Langue, Politiques Linguistiques	522
TOTAL		2113h

Enseignements en anglais en heures EqTD, 2001 - 2018 à USMB

RESPONSABILITES COLLECTIVES

Le tableau ci-dessous synthétise l'ensemble de mes responsabilités collectives, notamment à l'USMB :

- Membre élue au CFVU (+ sous-commission pédagogique), CAC et CAC-Restreint (avril 2016– août 2018).
- Membre élue au Conseil du Laboratoire de Recherche LLSETI (avril 2016 – août 2018).
- Membre en tant que responsable LANSAD au Bureau de l'UFR LLSH et au Conseil d'UFR LLSH (voix consultative) (septembre 2013– août 2018).

	Université Savoie – Mont Blanc								Université Grenoble-Alpes		
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Membre élue : CFVU ; Comm. Pédagogique ; CAC ; Conseil du Laboratoire LLSETI											
Membre invitée : Conseil & Bureau de l'UFR											
Membre invitée : Bureau pédagogique du Service des Langues, UGA											
Responsable LANSAD SHS (dès 2003)											
Responsable Section anglais LLCER											
Responsable, LLCER2 Anglais											
Création et gestion d'échanges à l'étranger (dès 2000)											
Responsable Assistanat des pays anglophones											
Comités de sélection (Savoie, Grenoble, Toulouse)											

Participation à des comités de sélection (11^{ème} section)

- Postes d'ATER : UGA printemps 2020 (pour Service des Langues)
- Postes de Contractuels : UGA printemps 2020 (pour l'UFR LLASIC)
- Postes de Maître de conférences :
 - o Université Joseph Fourier, Grenoble 1 (2011), Référence 11MCF1338 ;
 - o Université de Grenoble III/Stendhal (2013), Référence 11-7/70MCF0355 ;
 - o Université Jean Jaurès-Toulouse (2017) Référence 11MCF0305.
- Postes de Professeur Agrégé à l'Université de Savoie (2011 et 2013).
- Postes de Doctorants Contractuels Enseignants (2011-).