

Failures in Vocabulary Learning instead of Pronunciation Difficulties: Schwa and Liaison in Learner French

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Abstract

Schwa and liaison are considered two of the most challenging phenomena of French (inter-)phonology. This article gives insight into results of a pilot study based on 12 interviews with teachers and 12 interviews with learners of French in Austria (within the corpus-based methodical framework of IPFC). It shows that teachers do not consider their phonological knowledge sufficient to teach pronunciation. However, learners' problems with schwa and liaison are not necessarily traced back to pronunciation difficulties or a lack of pronunciation training. Rather they are attributed to failures in vocabulary learning which include the pronunciation of words or constructions with or without schwa or liaison, e.g. bêt(e)ment, jeux [z] olympiques.

Introduction

French schwa and liaison are known to be amongst the biggest challenges for learners of French as a foreign language (Thomas 2004, Barreca 2015). The two phenomena both consist of alternations: in the case of schwa, a vowel/zero alternation (e.g. *petit* 'small' [pəti]~[pti]), and in the case of liaison, a consonant/zero alternation (e.g. *il est allé* 'he has gone' [ilɛtalɛ]~[ilɛalɛ]). Both phenomena have an equivalent in orthography which often serves as a starting point in foreign language learning (<e> for schwa and <t> in our example for liaison).

State of the Art

Liaison

Native Speakers

Corpus-based studies show that the realization of liaison depends on a complex interaction of different language levels – phonology, morphology, syntax and lexicon – as well as sociolinguistic factors like the speaker's educational level or speech situation

(Ågren 1973, De Jong 1994, Durand/Lyche 2008). This has led to the conclusion that liaison seems to consist of two phenomena. On the one hand, the obligatory or categorical liaison with a morphological function (this type of liaison is part of frequent constructions, e.g. the plural marker [z] in *les [z] amis* 'the friends'). On the other hand, the facultative or variable liaison with a socio-stylistic function (e.g. *il était [t] à Paris* 'he was in Paris') (Laks 2005).

Learners

In the course of the 21st century, liaison has been catching attention in French as a foreign language (*français langue étrangère*, FLE). However, for the sake of research-economic reasons, current research is mainly restricted to advanced learners at university level with different first languages: English (Mastromonaco 1999, Howard 2005, Thomas 2004), Spanish (Racine 2015), German (Germany; Pustka 2015) and Korean (Harnois-Delpiano/Cavalla/Chevrot 2012).

The results of these studies indicate that obligatory liaisons do not pose serious problems for advanced students, except for compounds and fixed phrases such as *jeux [z] olympiques* 'Olympic Games' (Pustka 2015, Howard 2005, Thomas 2004). However, facultative liaisons are hardly produced by learners of French (Thomas 2004).

Recent studies also deal with the question of whether there are differences in the acquisition of liaison in French as L1 or L2. Do speakers of French apply pronunciation rules or do they store 'chunks' in the mental lexicon? (Wauquier 2009, Harnois-Delpiano 2016).

Schwa

Native Speakers

Recent corpus-based studies show that Parisian speakers tend to delete 67% of potential schwas in the first syllable (e.g. *melon* 'melon' [mɛlɔ̃]~[mlɔ̃]). Furthermore, schwa is mostly realized in monosyllables (e.g. *j(e)* 'I'; 43% of elision) but hardly pronounced in

internal (e.g. *samedi* ‘Saturday’; 90% of elision: [samdi]) and final syllables (e.g. *chose* ‘thing’; 82% of elision: [foz]; Pustka 2007).

Learners

In French, the phonetic realization of the instable vowel designed with the IPA symbol /ə/ resembles the full vowels [ø] or [œ] (Bürki et al. 2008). German also has a schwa (e.g. *denken* ‘to think’ [dɛŋkən]~[dɛŋkŋ]), but its behavior and realization is different, having a tendency to [e] or [ɛ] (Krech et al. 2009). According to this, German learners produce schwa with less rounding of the lips: [e] or [ɛ] (Pustka/Meisenburg 2017).

As Uritescu et al. 2002 point out, Canadian learners with English as L1 tend to elide less schwa than native speakers do, and hardly any schwa in the first syllable (e.g. *melon* ‘melon’: [mɛlɔ̃]) and in monosyllables (e.g. *je* ‘I’: [ʒə]). However, in final (e.g. *chose* ‘thing’) and internal (e.g. *samedi* ‘Saturday’) syllables they elide the majority of schwa (e.g. [foz], [samdi]). A study on Dutch students revealed the learnability of schwa alternation. Learners memorize two forms of a word with and without schwa. The full forms are better recognized than the reduced ones (Morano/Ernestus/ten Bosch 2015).

Methodology

(1)PFC

The program *Interphonologie du Français Contemporain* IPFC (<http://cbllle.tufts.ac.jp/ipfc/>; Detey/Racine/Kawaguchi 2008, Racine/Detey/Kawaguchi 2012), which started in 2008, is a further development of *Phonologie du Français Contemporain* PFC which has existed since 1999 (www.projet-pfc.net; Durand/Laks/Lyche 2002; Detey et al. 2017). IPFC documents and analyzes the pronunciation of learners with more than 15 different native languages all over the world (<http://cbllle.tufts.ac.jp/ipfc/>). Within this framework, two corpora on the German language in Germany exist: IPFC-*allemand* Munich and Osnabrück (Pustka 2015, Meisenburg/Pustka 2017).

The IPFC methodology contrasts, amongst others, the reading of a text (398 words with 194 contexts of potential schwa and 33 contexts of potential liaison; approx. 3 min) and semi-spontaneous speech in an interview (approx. 15 min). The recorded data is orthographically

transcribed with the help of the software PRAAT (Boersma/Weenik 2017, www.praat.org) and annotated with the PFC code system for schwa and liaison (e.g. *se0212ra* ‘it will be’, *les11z amis* ‘the friends’).

Vienna Corpus

The corpus IPFC-*allemand* (*Vienne*) is composed of 12 Viennese students with the CEFR levels A2/B1 vs. B2/C1. The data was collected in 2015 by Duygu Durmuş, Marie-Antoinette Goldberger and Marc Chalier and has been completed by Julia Forster and Julia Kamerhuber in 2016. Additionally, 12 teachers from several parts of Austria were interviewed about the role of variation and pronunciation in their classrooms, particularly regarding schwa and liaison. In order to compare the teachers’ with the students’ pronunciation, both groups of informants read the same text. Our corpus of 3h36min contains 4934 contexts of schwa and 1461 contexts of liaison.

Data Analysis

Due to learners’ mispronunciations, it was necessary to expand the code system of PFC. In the case of schwa, two additional numbers were added that classify the realization of [e] or [ɛ] instead of [ə]. In the case of liaison, the code system was expanded by liaison consonants that do not exist in native speech or rarely appear (e.g. [d] in *grand émoi* [gʁɑ̃demwa] instead of [gʁɑ̃temwa]).

Results

Teachers’ Representations

The qualitative interviews on pronunciation instruction with Austrian teachers of French show that 75% highly prioritize pronunciation but only 42% classify their own pronunciation as good or very good. Only 17% (2 teachers out of 12) regularly use the International Phonetic Alphabet (IPA) in class and 50% use it occasionally. However, according to the Austrian curriculum of foreign language teaching in secondary education (BMBF 2016) the use of phonetic transcription is rated as mandatory.

Many teachers consider liaison as one of the most important phenomena of French pronunciation, quoting ‘Without liaison, it doesn’t sound French.’ (‘Ohne Liaison klingt es nicht französisch.’). Thus, there is a lack of

detailed knowledge concerning the realization rules.

In contrast, schwa is a stranger to 67% of the interviewed teachers, quoting ‘Schwa? What is that? I don’t know that.’ (“Schwa? Was ist das? Das kenne ich nicht.”). Consequently, they do not teach schwa in class. The remaining 33% confine themselves to the schwa’s non-realization in word-final position in Standard French (e.g. *chose* ‘thing’ [ʃoz]).

Segmental Level

Liaison

Generally speaking, our study shows that our informants produce many more wrong liaison-consonants when reading the PFC text than in spontaneous speech. This observation can be illustrated by *grand émoi* ‘big stir’ and *grand honneur* ‘big honor’ of the PFC text. In these contexts 50% of the teachers and 54% of the Viennese students produce [d] instead of [t]: [gʁɑ̃demwa] instead of [gʁɑ̃temwa] and [gʁɑ̃dɔ̃nœʁ] instead of [gʁɑ̃tɔ̃nœʁ]. This might be explained by the misleading orthography of the grapheme <d> and the lack of rule consciousness concerning the correct usage of liaison consonants.

Schwa

In general, the learners pronounce the schwa correctly. Nevertheless, in 8 % of all schwa contexts we observe [e] or [ɛ] instead of [ə]. In particular, the first syllable of a polysyllabic word is prone to mispronunciation by 58% of students and 19% of teachers (e.g. *chemises* ‘shirts’ pronounced as [ʃemiz] instead of [ʃ(ə)miz]). Learners obviously do not know that, in some contexts in French, <e> is pronounced (if it is pronounced) [ə] and not [e].

Suprasegmental Level

Liaison

Regarding the contexts of realizations, our learners produce liaisons in limited contexts. Obligatory liaisons after pronouns such as *on* ‘one’ (98%) and *nous* ‘we’ (97%) are mostly realized. In contrast, they are often missing after other frequent words such as *tout* ‘all’ (67% of realizations), *très* ‘very’ (73%) or *quand* ‘when’ (69%) as well as in the compound *jeux* [z] *olympiques* ‘Olympic Games’ (only one correct pronunciation among the 12 students’

readings). An explanation for these differences could be that liaisons after pronouns are probably learnt in the context of conjugation of the frequent auxiliary *avoir* ‘to have’ (e.g. *on* [n] *a* ‘one has’, *nous* [z] *avons* ‘we have’) whereas other pronouns, adverbs and conjunctions are not learnt in context.

Schwa

In the case of schwa, the elision rate is comparable to that of L1 speakers in word-final position: learners elide 84%, Parisian speakers 82%, e.g. *village* ‘village’ [vilaʒ] (and not [vilaʒə] as in Southern French). Amongst the learners, the elision rate is much lower (67%) in word-medial position after a single consonant, where L1 speakers present an elision rate of 90%, e.g. *bêtement* ‘stupidly’ [bɛtmã] (and not [bɛtəmã]). In monosyllables (e.g. *je*) and the first syllable of polysyllables (e.g. *chemises*) either a schwa or a full vowel is nearly always pronounced by our learners; elisions are very scarce: in monosyllables 89% of the <e> are pronounced as [ə], in first syllable of polysyllables 39% are realized [ə] and 39% as [e] or [ɛ].

Conclusion

Our pilot study on Viennese learners shows that the key factors for the pronunciation of schwa and liaison in French as a foreign language are the orthographic and lexical input. The correct or conventionalized pronunciation of ‘chunks’ like *jeux* [z] *olympiques* and frequently used words like *bêt(e)ment* have to be taught by means of the IPA in French classes, particularly in context of vocabulary learning. Therefore, the development of supporting teaching materials as well as advanced trainings for teachers are an urgent desideratum. Pronunciation education should no longer be considered the “Cinderella of language teaching” (Kelly 1969).

Acknowledgements

We gratefully acknowledge all teachers and speakers for their participation in our studies as well as Duygu Durmuş, Marie-Antoinette Goldberger and Marc Chalier for having collected the data.

References

- Ågren, J. (1973). Etude sur quelques liaisons facultatives dans le français de conversation

- radiophonique: fréquences et facteurs.
Uppsala: Acta Universitatis Upsaliensis.
- Barreca, G. (2015). L'acquisition de la liaison chez les apprenants italophones. Des atouts d'un corpus de natifs pour l'étude de la liaison en français langue étrangère (FLE). (PhD thesis, University West University Nanterre La Défense/Milan).
- BMBF (2016). Lehrplan. Lebende Fremdsprache. (Erste, Zweite), vl. https://www.bmb.gv.at/schulen/unterricht/lp/lp_ahs_os_lebende_fs_11854.pdf?5i84jw (23.11.2016).
- Boersma, P.&Weenink, D. (2016). *Praat: doing phonetics by computer*, vl. <http://www.fon.hum.uva.nl/praat/> [Computer program. Version 6.0.10].
- Bürki, A., Gendrot, C., Fougéron, C. et al. (2008). Alignement automatique et analyse phonétique: Comparaison de différents systèmes pour l'analyse du schwa. *Traitement Automatique des Langues* 49, 165-197.
- De Jong, D. (1994). La sociophonologie de la liaison orléanaise. In C. Lyche (Ed.), *French Generative Phonology: Retrospective and Perspectives* (pp. 95-130). Salford: AFLS/ESRI.
- Detey, S., Racine, I. & Kawaguchi, Y. (2008). Interphonologie du Français Contemporain, vl. <http://cbllle.tufts.ac.jp/ipfc/> (23.11.2016).
- Detey, S., Eychenne, J., Kawaguchi Y. & Racine, I. (2017). La prononciation du français dans le monde: du natif à l'apprenant. Paris: CLE international.
- Durand, J. (2008). Projet Phonologie du Français Contemporain, vl. <http://www.projet-pfc.net> (23.11.2016).
- Durand, J., Laks, B. & Lyche, C. (2002). La phonologie du français contemporain: usages, variétés et structure. In C. Pusch, W. Raible (Eds.), *Romanistische Korpuslinguistik – Korpora und gesprochene Sprache/Romance Corpus Linguistics – Corpora and Spoken Language* (pp. 93-106). Tübingen: Narr.
- Durand, J. & Lyche, C. (2008). French liaison in the light of corpus data. *Journal of French Language Studies* 18.1, 33-66.
- Harnois-Delpiano, M., Cavalla, C. & Chevrot, J.-P. (2012). L'acquisition de la liaison en L2: étude longitudinale chez des apprenants coréens de FLE et comparaison avec enfants franco-phones natifs. In: F. Neveu, V. Muni Toke, P. Blumenthal et al. (Eds.). *Congrès Mondial de Linguistique Française* (pp. 1575-1589).
- Harnois-Delpiano, M. (2016). Le kaléidoscope de la liaison en français: étude comparée de son approbation par les apprenants adultes de FLE et des enfants natifs. (PhD thesis, Grenoble Alpes University).
- Howard, M. (2005). L'acquisition de la liaison en français langue seconde. Une analyse quantitative en milieu guidé et en milieu naturel. *Corela* 1, 143-165.
- Kelly, L. G. (1969). *25 centuries of language teaching*. Massachusetts: Newbury House Publishers.
- Krech, E.-M., Stock, E., Hirschfeld, U. et al. (2009). *Deutsches Aussprachewörterbuch*. Berlin: Walter de Gruyter.
- Laks, B. (2005): La liaison et l'illusion. *Langages* 158, 101-112.
- Mastromonaco, S. M. (1999). Liaison in French as a Second Language. (PhD thesis, Toronto).
- Morano, L., Ernestus, M. & ten Bosch, L. (2015). Schwa reduction in low proficiency L2 Speakers: Learning and Generalization. In M. Wolters, J. Livingstone, B. Beattie et al. (Eds.), *Proceedings of the 18th International Congress of Phonetic Sciences [ICPhS 2015]*. Glasgow: University of Glasgow.
- Pustka, Elissa (2007). Phonologie et variétés en contact: Aveyronnais et Guadeloupéens à Paris. Tübingen: Narr.
- Pustka, E. (2015). Die Liaison im Fremdsprachenerwerb: eine Pilotstudie zu Münchner Lehramtsstudenten. *Bulletin VALS-ASLA* 102, 43-64.
- Pustka, E. & Meisenburg, T. (2017). Les germanophones. In S. Detey et al. (Eds.), *La prononciation du français dans le monde: du natif à l'apprenant* (pp. 130-137). Paris: CLE international.
- Racine, I., Detey, S., Zay, F. & Kawaguchi, Y. (2012). Des atouts d'un corpus multitâches pour l'étude de la phonologie en L2: l'exemple du projet « Interphonologie du français contemporain » (IPFC). In A. Kamber & C. Skupiens (Eds.), *Recherches récentes en FLE* (pp. 1-19). Berne: Peter Lang.
- Racine, I. (2015). La liaison chez les apprenants hispanophones avancés de FLE. *Bulletin VALS-ASLA* 102, 147-171.
- Thomas, A. (2004). Phonetic norm versus usage in advanced French. *IRAL* 42, 365-382.
- Uristescu, D., Mougeon, R. & Handouleh, Y. (2002). Le comportement du schwa dans le français parlé par les élèves des programmes d'immersion française. La linguistique fonctionnelle au tournant du siècle. In A. Baudot & C. Tatilon (Eds.), *Actes du Vingt quatrième Colloque international de linguistique fonctionnelle* (pp. 335-346). Toronto: Éditions du GREF.
- Wauquier, S. (2009). Acquisition de la liaison en L1 et L2: stratégies phonologiques ou lexicales?. *AILE...LIA* 2, 93-130.