MAIN SESSION PRESENTATIONS

THE ACQUISITION OF WORD-FINAL CONSONANTS IN A BILINGUAL LEARNER OF FRENCH AND EUROPEAN PORTUGUESE

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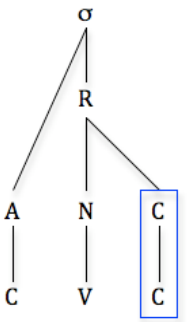
Introduction

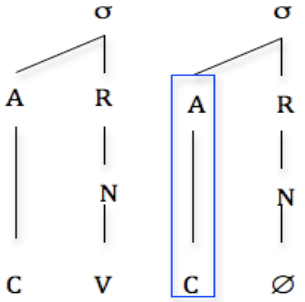
From a theoretical standpoint, word-final consonants can either be syllabified as codas or as onsets of empty-headed syllables (henceforth, OEHS) across languages. Some scholars state they are codas (for ex. Bernhardt & Stemberger 1998). Under Government Phonology, they are systematically claimed to be OEHS (Kaye, Lowenstamm & Vergnaud 1990; Charette 1991; Harris & Gussman 1998). Piggott (1999) adopts an intermediate position and proposes that word-final consonants can either be syllabified as codas or as OEHS depending on the distributional properties of the language. Piggott, taking for example Selayarese, argues that some languages show a reduced inventory of final consonants, restricted to the one allowed in syllable-final position word-medially. Additionally, these final consonants are not specified for place of articulation, which is a characteristic of coda consonants. Such consonants are thus syllabified as codas, as represented in figure 1.

Figure 1: Representation of coda syllabification of final consonants



In contrast to this, some languages exhibit fewer constraints on the inventory of word-final consonants compared to word-medial syllable-final consonants. In those cases, word-final consonants are usually syllabified as OEHS. In such languages, like Diola-fogny, the inventory of word-final consonants is usually similar to the inventory of word-initial consonants. Moreover, word-final consonants are also specified for their place of articulation. In these cases, word-final consonants are not at the end of a syllable but at the beginning of a new one, as illustrated below.

Figure 2: Representation of OEHS syllabification of final consonants



These different possibilities of syllabification of word-final consonants have an impact during phonological development. Goad & Brannen (2003) claim that word-final consonants are always syllabified as OEHS in the early acquisition stages, in all target languages, because this is the simplest (and thus, the default) syllabification. The authors report some empirical evidence, based on the productions of five English-speaking children: they show that during their first productions, children can produce word-final consonants with epenthesis of a final vowel, with aspiration or with consonant lengthening. These patterns of production are exemplified below:

Epenthesis	[hɛtɛ]	« hat »	Jacob, 20 months
Aspiration	[bɑkʰ]	« bike »	Jacob, 20 months
	[bokʰ]	« broke »	Hildegard, 22 months
Final consonant	[keˈkː]	« cake »	Mollie, 18 months
lengthening	[dʒusː]	« juice »	Jacob, 20 months

The authors argue that these behaviours can be accounted for by considering that word-final consonants are, at that point of development, syllabified as OEHS. Epenthesis, aspiration and lengthening occur because an empty position is available after the final consonant (see figure 2). The authors claim that OEHS is the simplest syllabification for final consonants and, thus, that it is the default syllabification.

Rose (2003) proposes an alternative view, that both syllabifications can be selected as default during development, depending on the distributional evidence available in the target language. He shows that two French-speaking children can select both syllabifications, depending on whether or not they assign a place of articulation to the final consonant. He shows that final /ʀ/ in French exhibits an ambiguous behaviour in the target system, so that children may not assign to /ʀ/ a fully specified place of articulation. If they assign to it a fully specified place of articulation, like Théo, the development of final /ʀ/ will pattern with the development of word-initial consonants, suggesting that final /ʀ/ is syllabified as OEHS. But, if they analyse /ʀ/ as being placeless, like Clara, then the development of final /ʀ/ will pattern with the one of word-medial codas, suggesting that final /ʀ/ is syllabified as coda.

In this paper, I will address these two contrasting proposals on the default syllabification of final consonants based on data from a French-Portuguese[1] simultaneous bilingual child. I will analyse the syllabification of word-final consonants based on the empirical evidence put forward both in Goad & Brannen (2003) and Rose (2003), namely, patterns of vowel epenthesis, on the one hand, and comparison with the development of other syllabic constituent, on the other hand.

1. French and Portuguese word-final consonants

In French, all consonants are allowed in word-final position (Dell 1995). In that sense, the segmental distribution of word-final consonants is identical to the one in word-initial position. Some examples of French final consonants are given below.

Plosives :	« petite »	[ptit]	small
Fricatives :	« girafe »	[ʒiʁaf]	giraffe
Rhotic :	« père »	[pɛʁ]	father
Lateral :	« belle »	[bɛl]	beautiful
Nasals :	« pomme »	[pɔm]	apple

Moreover, sequences of two consonants are allowed at the right edge of the words, exhibiting the same segmental distribution as in word-initial position, as illustrated below:[2]

Sequence		Word-initially			Word-finally	
[bʁ]	« bras »	[bʁa]	arm	« sabre »	[sabʁ]	sabre
[tʁ]	« trou »	[tʁu]	hole	« vitre »	[vitʁ]	pane
[dʁ]	« drap »	[dʁa]	sheet	« poudre »	[pudʁ]	powder
[gʁ]	« gris »	[gʁi]	grey	« maigre »	[mɛgʁ]	thin
[vʁ]	« vrai »	[vʁɛ]	true	« pauvre »	[povʁ]	poor
[kl]	« clou »	[klu]	nail	« boucle »	[bukl]	curl
[fl]	« flûte »	[flyt]	flute	« souffle »	[sufl]	breath
[bl]	« blanc »	[blɑ]	white	« lisible »	[lizibl]	readable
[pl]	« plaisir »	[plɛziʁ]	pleasure	« peuple »	[pœpl]	people

Kaye, Lowenstamm & Vergnaud (1990), as well as Dell (1995), assume that word-final consonants are syllabified as OEHS in French.[3] Since the inventory of word-final consonants is not restricted in French and that segmental distribution in word-final position is similar to the one attested in word-initial position, this analysis matches Piggott (1999)'s proposal, following the idea that the similar distribution of word-final and word-initial consonants suggests a syllabification in onset position for both constituents. Also in French, Fagyal (2000) and Eychenne (2006), based on oral corpora of spontaneous speech produced by French speakers, show that word-final consonants can optionally be produced followed by an epenthetic schwa at the end of an Intonational Phrase. From a syllabic perspective, this final schwa is legitimated by the position of an empty nucleus, which indeed supports the analysis of word-final consonants as OEHS.

The study of the acquisition of French word-final consonants shows that children can get to different analyses during development. Rose (2000) shows that a French-speaking child, Théo, acquires all word-final consonants simultaneously, at the age of 2;04. Following Rose, this behaviour suggests that the child assigns the same syllabic status (OEHS) to all his final consonants. But the author also shows that another French-speaking child, Clara, acquires all final consonants at 1;07, with the exception of [ʁ]. Rose states that [ʁ] is mastered later because she assigns

the syllabic status of coda to her final [ʁ]. In fact, syllable-final [ʁ] is acquired in word-final position at the same age as in word-medial position. Similar results are reported for another French learner, Marilyn, who acquires obstruent final consonants before sonorants (dos Santos 2007). Dos Santos argues that, during a first stage, Marilyn syllabifies her final obstruents as OEHS and her final sonorants as codas. This would account for the early production of final obstruents. The author also states that, later in development, the child makes a re-analysis of word-final sonorants and syllabifies them as OEHS: she starts producing them after final obstruents but before word-medial codas. To sum up, the analysis of the development of word-final consonants in three French-speaking children reveals that final obstruents are usually syllabified as OEHS, that sonorants can be syllabified as OEHS (in the case of Théo) or as codas (Clara and Marilyn), and that some children can switch from a previous analysis to the target analysis during development (Marilyn).

In the case of Portuguese, Mateus & Andrade (2000) show that the inventory of word-final consonants is limited to three phonological segments: /s/, /l/ and /ɾ/. As this distribution matches the segmental distribution of word-medial codas and that final consonants are restricted and not specified for place of articulation, the authors assume that they are syllabified as codas. This assumption follows Piggott's proposal since it is based on the comparison between final consonants word-medially and word-finally. Also, these three final consonants are affected by the same phonological processes word-medially and word-finally: the lateral is velarized; /s/ is palatal and agrees in voicing with the following consonant; no phonological process affects /ɾ/. Examples of Portuguese word-final consonants are given below.

Fricative:	festas	[ˈfɛʃtɐʃ]	parties
	festas privadas	[ˈfɛʃtɐʃpɾiˈvadɐʃ]	private parties
	festas de verão	[ˈfɛʃtɐʒdɨviˈɾɐ̃w̃]	summer parties
Lateral:	anel	[ɐˈnɛɬ]/[ɐˈnɛl̪ɨ]	ring
Rhotic:	mar	[ˈmaɾ]/[ˈmaɾ̪ɨ]	sea

However, as illustrated above, word-final liquids can optionally be produced followed by an epenthetic schwa in the target language. In that specific case, /l/ is not velarized, as exemplified above.

The study of the development of final consonants by Portuguese children shows that these consonants do not pattern similarly during development: /s/ is typically acquired before liquids (Freitas 1997; Correia 2004). Indeed, Freitas (1997), based on the development of 7 children, and Correia (2004), who studied the development of 6 children, report that children often produce an epenthetic vowel after final liquids. Given that children acquire liquids after fricatives, that liquids may be produced followed by an epenthetic vowel (a pattern never attested for final fricatives) and, also, that liquids are acquired word-finally by the time they are acquired word-initially, Freitas (1997) states that Portuguese children have two different syllabifications for their word-final consonants: /s/ is syllabified as a true coda but liquids are syllabified as OEHS. The data analysed in Correia (2004) supports this proposal. As Correia (2004) studied older children than Freitas (1997), she could find that, later on in development, there was still an asymmetry on the development of final /ɾ/ depending on word position: children acquired word-final /ɾ/ before /ɾ/ in coda position. Correia argues that such asymmetry in the age of acquisition for different word positions is not clear for /l/. Based on this fact, Correia argues that, at a later stage in development, children reanalyse /l/ as a coda but still syllabify /ɾ/ as OEHS. To sum up, in Portuguese, the final obstruent is always syllabified as a coda whereas liquids are syllabified in OEHS. However, it is possible that children switch from this analysis to the target analysis of coda, at least in the case of /l/.

The study of the simultaneous acquisition of French and Portuguese word-final consonants is of particular interest because both languages exhibit different distributional properties of their word-final consonants: they pattern like word-initial consonants in French and like word-medial codas in Portuguese. Also, the study of monolingual acquisition of these languages suggests that children assign different syllabifications to word-final consonants in the course of acquisition: In French, obstruents are always analysed as OEHS and liquids may be analysed as OEHS or as codas; on the contrary, in Portuguese, the obstruent is always syllabified as coda and liquids may be analysed as OEHS or as codas during development. Also, despite these differences in syllabification during acquisition, the order of development of final consonants is similar for monolinguals in both languages: obstruents typically emerge before liquids. Following that, the main research question in this paper is whether the bilingual child will be sensitive to the properties of the input in each language, following Rose (2003)'s proposal, or whether the acquisition

path will be guided by the unmarked syllabification (namely, OEHS), as stated by Goad & Brannen (2003).

2. Methodology

As mentioned above, our corpus consists of longitudinal spontaneous speech from Barbara, a Portuguese-French bilingual child, whom we audio-video recorded approximately every second week at her home. 55 sessions were collected from the child's first productions (1;00) until 3;10. The recordings took place during unstructured play situations. The recordings of the two languages followed the one-person, one-language design. An interlocutor for each language was present; only the presence of the parent who spoke the language of the session was allowed. Each session lasted approximately 30 minutes. All sessions were phonetically transcribed; these transcriptions were performed and stored with the help of the software *Phon* (e.g. Rose & MacWhinney, to appear). All the searches were performed on this software. The analysed corpus contains a total amount of 22083 words in Portuguese and 21904 words in French. For the purpose of data analysis, we consider that a structure emerges when it is produced at least once in two consecutive sessions. We consider a given structure to be acquired when its productions reach at least 80% of accuracy in two consecutive sessions.

Barbara was born and raised in Portugal in a bilingual family: her father is a native speaker of French and her mother a native speaker of Portuguese. Both speak to the child in his/her native language. Barbara has two older brothers who talk to her in both languages but predominantly in Portuguese. Before entering school at 3;07, Barbara spent most part of the day with her monolingual Portuguese grandparents. From these observations, we can establish that Barbara's early upbringing mostly took place in a Portuguese monolingual environment. However, she usually spent vacation time in a French-speaking country with her family. Also, each parent can communicate in the other's language and the family chooses to speak only in French on Saturdays. At 3;07, Barbara entered a French kindergarten in Lisbon.

3. Results

In this section I present the development of word-final consonants in both languages.

The results about the development of French word-final consonants are exposed in the table below. A "√" stands for the presence of a phenomenon and a "x" stands for the absence of a given phenomenon.

Table 1: Development of final consonants in French

	Age of emergence	Age of acquisition	Epenthesis	Substitution
Plosives	1;10	1;10	√	x
Fricatives	1;08	1;08	√	x
Nasals	2;03	3;04	√	x
Lateral	2;07	3;00	√	√ /l/>[j]
Rhotic	2;06	3;00	√	x

In French, both plosives and fricatives are categorically acquired when they are first attempted, at 1;10 and 1;08, respectively. Sonorant consonants emerge later than obstruents and are gradually acquired. They do not get stable before 3;00 (in the case of liquids) and 3;04 (in the case of nasals). Before being produced, /l/ is systematically substituted by [j] until 2;04. The nasals and the rhotic undergo deletion before being produced. All types of consonants can optionally be produced with vowel epenthesis, mostly when they are at the end of an Intonational Phrase, which is the behaviour reported for adults (Fagyal 2000; Eychenne 2006).

Some examples of production of word-final consonants in Barbara's French spontaneous productions are exposed below:

boat	[ˈbaʁk]	→	[ˈpaˈki]	1;10
bear	[ˈuʁs]	→	[ˈβus]	1;08
moon	[ˈlyn]	→	[ˈjyn]	2;03
horse	[ʃøval]	→	[vaj]	1;04
ball	[ˈbal]	→	[ˈbal]	2;07
to do	[ˈfɛʁ]	→	[ˈfɛʁ]	2;07

I turn now to the development of word-final consonants in Barbara's Portuguese productions, exposed in table 2.

Table 2: Development of final consonants in Portuguese

	Age of emergence	Age of acquisition	Epenthesis	Substitution
Fricative	1;04	1;04	x	√ (PoA)
Lateral	2;06	3;00	√	√ /l/>[j]
Rhotic	2;03	---	√	√ /ɾ/>[j]

In Portuguese, like in French, obstruent word-final consonants are acquired categorically and before sonorants: /s/ is produced when first attempted, at 1;04, even if its correct place of articulation is not mastered until 2;11. Until then, the child produces a coronal fricative that may surface as [+] or [-] anterior, like illustrated below.

more	[ˈmajʃ]	→	[ˈmaiç]	1;04
two	[ˈdojʃ]	→	[ˈdos]	2;00

The liquids are usually replaced by [j] before being produced. Also, /l/ becomes stable at 3;00 but /ɾ/ never reaches 80% of target-like productions over two consecutive sessions, even though it usually reaches 50% of target-like production. The two liquids are optionally produced followed by an epenthetic vowel whereas this pattern of production is not attested for /s/. Some examples below illustrate the development of Portuguese word-final consonants:

snail	[kɐɾɐˈkɔɬ]	→	[ɣɐˈkɔj]	2;01
snail	[kɐɾɐˈkɔɬ]	→	[kalaˈxɔlɨ]	2;05
sheet	[lɐ̃ˈsɔɬ]	→	[lɐ̃ˈsɔɬ]	3;00
tractor	[tɾɐˈtoɾ]	→	[tɐˈtoj]	2;00
to sleep	[duɾˈmiɾ]	→	[nuˈmiɾɨ]	2;03
mister	[sɨˈɲoɾ]	→	[ʂiˈɲoɾ]	2;09

In sum, word-final obstruents emerge before sonorants and are acquired categorically in both languages. Also, all French word-final consonants can be produced with a following vowel, a pattern also attested in Portuguese but only for liquids; in this language, the fricative is never produced with a following vowel in the corpus studied.

4. Discussion

In this section, I will discuss the syllabic status of word-final consonants in French and Portuguese during the simultaneous development of these two languages, in order to test if there is a default syllabification (Goad & Brannen 2003) or whether the syllabification of word-final consonants is determined by distributional properties in the target language from early on (Rose 2003). For this purpose, I will focus on the occurrence of vowel epenthesis or of another pattern of production that suggests the presence of an empty category after the word-final consonant (Goad & Brannen 2003). On the other hand, I will also compare the development of word-final consonants with the development of singleton onsets and codas (Rose 2003).

In French, Barbara's data show that final obstruents are acquired before sonorants, a pattern described for a French monolingual child (dos Santos 2007). Also, optional vowel epenthesis occurs for all types of consonants, mostly at the end of an Intonational Phrase, which is typically the pattern described for adults (Fagyal 2000; Eychenne 2006). This fact suggests that there is an empty position available after the consonant, and that it may be filled by a final schwa. Nevertheless, the later emergence of final sonorants might suggest that the child assigns a different syllabic status to them. Target-like production of nasals starts quite late, at 2;07. However, the child does not often attempt producing nasals before that age. We thus cannot conclude that the child is not able to produce final nasals before that age. As for liquids, if we compare their development in word-final position and in singleton onset position, similarities are found. The next table compares the development of liquids in singleton onsets, medial codas and word-finally.

Table 3: Comparison of the development of liquids in French

	Singleton onset	Word-finally	Medial Coda
/l/	3;00 /l/>[j]	3;00 /l/>[j]	-----
/R/	3;00	3;01	3;03

The previous table shows that /l/ is acquired at the same age word-initially and word-finally (3;00), whereas it remains unstable in coda position until the end of the period covered by the corpus (3;10). Also, before being produced, /l/ undergoes the same substitution word-initially and word-finally, whereas in coda position this substitution is not asttested. /R/ becomes stable at 3;00 in onset position and only one month

later word-finally. /ʀ/ only becomes stable in coda position three months later. We can thus state that the age of mastery of /ʀ/ word-finally is closer to the age of mastery of /ʀ/ word-initially than to the one in coda position.

Based on the patterns of epenthesis attested for all final consonants in French and on the comparison of the development of liquids in several syllabic positions, I argue that Barbara syllabifies all her French word-final consonants as OEHS from the onset of their development. This syllabification is attested in French monolingual acquisition, namely for Théo (Rose 2000).

In Portuguese, final obstruents also emerge before sonorants. We saw that Barbara, in Portuguese, contrastingly with what happens in French, never produces /s/ with epenthesis, even in her early productions. The final epenthesis of a vowel constitutes an empirical argument proposed by Goad & Brannen (2003) to support the early syllabification of final consonants as OEHS. In fact, Barbara distinguishes her productions of final fricatives in French and Portuguese: in French, they can be followed by a vowel but this never happens in Portuguese. If final fricatives had a similar syllabic status in both languages, we could expect a similar pattern of production, which is not the case. This fact allows us to state that final /s/ in Portuguese is syllabified as a coda from the child's first productions on. Another argument in favour of this representation is the developmental pattern of the target phonetic form of /s/: in singleton onset, the coronal [-anterior] fricatives are acquired at 2;07. In word-medial coda position, this phonetic format of /s/ is acquired at 3;00 and, word-finally, at 2;11 . Thus, the age of mastery of the coronal [-anterior] place of articulation for coda fricatives is the same word-medially and word-finally, with one month of interval. This pattern of acquisition constitutes another empirical argument

Table 4: Comparison of the development of liquids in Portuguese

	/l/ until 2;08	/l/ from 2;09	/ɾ/
Word-finally	[ɬ]>[j]	[ɬ]>[ɬ] (emergence)	[ɾ]>[j]; 2:03 (emergence)
Singleton onset	[ɬ]>[j]	[l]>[l] (acquisition)	[ɾ]>[j]; 2:03 (emergence)
Medial Coda	[ɬ]>∅	[ɬ]>[ɬ] (emergence)	[ɾ]> ∅; 2:09 (emergence)

in favour of an early coda syllabification of the final fricative in Portuguese, which is the syllabification exhibited by monolingual Portuguese children (Freitas 1997; Correia 2004).

In order to better catch the development of final liquids, I summarize in the previous table their developmental patterns and their age of acquisition and emergence in all positions studied.

Both liquids are optionally produced with epenthesis word-finally. Also, they first go through a stage of systematic substitution by [j] word-finally, which is also attested word-initially and absent from medial coda position: in this position, liquids are preferably omitted, rather than substituted.

Focusing on /l/, its developmental patterns can be divided into two stages. Until 2;08, /l/ seems to be syllabified as OEHS: the child may produce /l/ followed by an epenthetic vowel. Moreover, the child also replaces /l/ by [j] in word-final position as well as in singleton onset position. These substitution patterns in word-initial and final position suggest that the child assigns the same syllabification to /l/ in both positions. Recall that /l/ is velarized at the end of the syllable, both word-medially and word-finally in the adult language. When an epenthetic vowel occurs following /l/, the child does not produce the velarized variant, she produces [lɨ]. Nevertheless, from 2;09, Barbara starts producing the velarized lateral. Theoretically, this phonetic format is only possible in coda position since the velarization phonological process affects this particular position. Also, Barbara starts producing [ɬ] at 2;09 at the end of a syllable, independently of its position within the word. Indeed, the target productions of [ɬ] do not become stable until the end of the period covered by our corpus, both word-finally and word-medially. This symmetry of behaviour between word-final position and word-medial coda position suggests that the child assigns the same syllabic status to /l/ in these two positions from the age of 2;09. I thus hypothesize that the final lateral is first analysed as OEHS until 2;08 and then reanalysed as coda at 2;09. This behaviour is consistent with what is described for Portuguese monolinguals, namely by Correia (2004), who shows that older children seem to syllabify /l/ as coda word-finally.

The development of /ɾ/ word-finally is similar to its development in singleton onset position. In fact, it is substituted by [j] in final position, like in singleton onsets. On the contrary, in medial coda position, it is mostly deleted. Moreover, /ɾ/ starts being produced at the same age (2;03) in singleton onset and in final position, contrasting to a later emergence in medial coda position (2;09). Additionally, in word-final position, the child

may produce /ɾ/ followed by an epenthetic vowel. Once again, the comparison between these three syllable positions, as well as the patterns of epenthesis, suggests that /ɾ/ is analysed as OEHS since its developmental patterns word-finally are similar to the ones attested in singleton onset position. Also, the patterns of development of /ɾ/ are in line with the ones reported for Portuguese monolingual children (Freitas 1997; Correia 2004).

In sum, in Portuguese, Barbara syllabifies her word-final fricative as a coda from her first productions. The two liquids are initially syllabified as OEHS, and, later on in development, /l/ is reanalysed as a coda. In French, all consonants are syllabified as OEHS during development. These patterns are similar to the ones reported for monolingual children of each language (Freitas 1997, Correia 2004 for Portuguese; Rose 2000 for French). These patterns are also in line with the distributional properties of both target languages.

Goad & Brannen (2003) propose that, during development, all final consonants are first syllabified as OEHS, their default syllabification, independently of the target language. As opposed to this, Rose (2003) argues that word-final consonants can either be syllabified as OEHS or as codas during phonological acquisition, depending on the distributional properties of the target language. The development of word-final consonants in the spontaneous productions of Barbara does not support Goad & Brannen (2003)'s proposal given the fact that the final fricative is syllabified as coda since it is first produced in Portuguese. Thus, OEHS is not the default syllabification since /s/ does not go through a stage of being syllabified as OEHS. I hypothesize that not all final consonants are syllabified as OEHS by default during acquisition. Instead, I argue that only consonants with an ambiguous input are syllabified as OEHS by default, this being the case of final liquids in Portuguese. In fact, Portuguese displays clear evidence for the coda syllabification of the final fricative through the voicing assimilation process, this phonological process being typical of the word-medial coda position. On the contrary, evidence is not so clear for liquids. In fact, the evidence for the syllabification of these consonants is ambiguous. In the case of /l/, it may either be produced as [ɬ] in the target language, showing a clear coda behaviour, or as [lɨ], showing an onset behaviour. Facing this ambiguous input, the child first syllabifies it as OEHS, suggesting a default syllabification. However, there is still some positive evidence in favour of coda syllabification through the velarization phonological process. I hypothesize that this phonological process allows the child to reanalyse

final /l/ as a coda. The proposal of conflicting evidence leading to different possibilities of syllabification explains the different results on Portuguese monolingual studies: Freitas (1997), who focus on 6 monolingual Portuguese learners, shows that children early syllabify /l/ as OEHS, thus exhibiting final vowel epenthesis. However, Correia (2004), based on 6 older Portuguese monolinguals, claims that final /l/ is later analysed as a coda consonant. We can thus state that the first analysis as OEHS and subsequent reanalysis as coda are part of the course of final consonants development in Portuguese.

In the case of /ɾ/, positive evidence in favour of a coda syllabification is scarce: on the one hand, /ɾ/ is coronal and, from a distributional perspective, it may be analysed as a coda because the three final consonants allowed in Portuguese are the same that occur in medial coda position (see section 1). On the other hand, it is often produced followed by an epenthetic vowel in the target language, suggesting an onset behaviour. Crucially, there is no phonological process associated to /ɾ/ in coda position. Thus, given the evidence available in the language, it may take longer for children to decide whether /ɾ/ is an OEHS or a coda. Meanwhile, it is syllabified by default as OEHS.

Our results have shown that OEHS is not the default syllabification for all consonants during development. I argue that OEHS is the default syllabification only for consonants whose syllabification is ambiguous due to the conflicting evidence available in the target language (in the case of final liquids in Portuguese). The results allow us to state that the presence of phonological processes (in the case of /s/ and /l/ in Portuguese) constitute strong positive evidence in favour of a coda syllabification. Finally, our results also show that the child is sensitive to the distributional properties of her two target languages, since she develops her final consonants in conformity with the evidence available in each language and, thus, shows an autonomous development of her both languages, in line with monolinguals in each language.

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Notes

[1] Both varieties are European.
[2] Examples from Harris & Gussman (1998).
[3] As an anonymous reviewer pointed out, there are some more theoretical proposals for the syllabification of final consonants (Dell 1984; Lowenstam 1996). Here, our main focus is not to discuss these proposals: in the line of Piggott's proposal, we want to see the impact of the distributional properties of word-final consonants on their syllabification during the acquisition process.