ULTIMATE ATTAINMENT IN L2 SYLLABIFICATION [*]

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ABSTRACT

The present study investigates whether second language learners can acquire native-like word-final syllabification. Thirty-seven novice, beginner, intermediate, and advanced English learners were tested on their syllabification of French word-final liquid-obstruent, nasal-obstruent, and obstruent-liquid clusters. It is argued that the group results for the 10 advanced learners are consistent with the resetting of three of the syllabification-related parameters to the target values. Furthermore, in the case of the obstruent-liquid clusters, six advanced learners' syllabifications were identical or extremely similar to those of native speaker controls. These two characteristics of the data are argued to support the hypothesis that native-like attainment is possible, at least in the acquisition of syllabification.

0. Introduction

One of the most commonly noted differences between first and second language acquisition is the success with which the target grammar is acquired, or the learner's 'ultimate attainment'. While almost all first (L1) language learners acquire the target grammar perfectly, many second language (L2) learners fail to do so. Such differences are perhaps most salient in the domain of phonology, where it is not uncommon for learners to fail to acquire target prosodic representations (e.g. Broselow and Park 1995) or the features necessary to build target phonemes (e.g. Brown 1998).

It is not the case, however, that all L2 learners 'fall short' of acquiring the target phonology. Indeed, several studies have shown that at least some L2 learners may attain native-like phonetic/phonological competence (e.g. Bohn and Flege 1990; Ioup et al. 1994; Bongaerts et al. 1997; Bongaerts 1999). The research presented here, consisting of data from a study of the L2 syllabification of word-final consonant clusters, lends further support to this claim. The study of L2 syllabification is of interest in the investigation of L2 ultimate attainment given that the majority of previous claims concerning phonological ultimate attainment have focused on segment structure. If it is the case that age-dependent effects do not extend to prosodic phonology in the same way that they do to segmental phonology (Archibald 1992), the study of a prosodic phenomenon such as

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syllabification may allow for new insights into ultimate attainment not possible through the study of segmental phonology alone.

The present paper consists of five sections. In §1, I summarize the theory of prosodic phonology adopted here and posit the representations for the English and French word-final liquid-obstruent, nasal-obstruent, and obstruent-liquid clusters. In §2, the experiment is presented, followed by a summary of the results in §3. A discussion of the data is undertaken in §4, followed by a brief conclusion in §5.

1. A Theory of Prosodic Phonology

I adopt the Principles and Parameters framework of Universal Grammar (UG) (Chomsky 1981). Such a theory includes the following principles concerning licensing and syllable structure:

(1) PROSODIC LICENSING (cf. Itô 1986:2)
All phonological units must be prosodically licensed, i.e., belong to higher prosodic structure.

(2) SONORITY SEQUENCING
A string CVC_1C_2V will be syllabified as $CV.C_1C_2V$[1] where sonority $C_1<C_2$ and as $CVC_1.C_2V$ where sonority $C_1 \exists C_2$ (modulo language-specific constraints).

(3) SONORITY HIERARCHY (e.g. Clements 1990)
obstruent < nasal < liquid < glide < vowel

(4) BINARY THEOREM (e.g. Kaye 1990; Hayes 1991)
Feet and Syllable constituents are maximally binary.[2]

Prosodic Licensing (1) requires that all prosodic constituents, including syllable constituents (i.e. onset, rhyme, and nucleus),[3] be organized into a hierarchy of dependency relations, where a given constituent's presence depends on the presence of the constituent that dominates it in representation. Sonority Sequencing (2) creates syllables in which sonority increases as one moves from either syllable margin towards the nucleus. The Sonority Hierarchy in (3) provides the relative sonority of different classes of segments. Finally, the Binary Theorem (4) requires that Feet and Syllable constituents maximally consist of a head and its dependent; consequently, ternary branching is prohibited.[4]

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[1] Periods represent syllable boundaries.

[2] The Binarity Theorem holds only for prosodic constituents below the level of the Prosodic Word. For example, Prosodic Words may consist of multiple feet.

[3] Following Government Phonology (e.g. Kaye, Lowenstamm & Vergnaud 1990; Kaye 1990), I give no formal status to the coda. I will, however, use the term informally to refer to post-nuclear rhymal consonants.

[4] For a more detailed discussion of these principles and parameters, as well as further evidence from a comparison of English and French supporting the representations posited in §1.1, see Steele (2000).

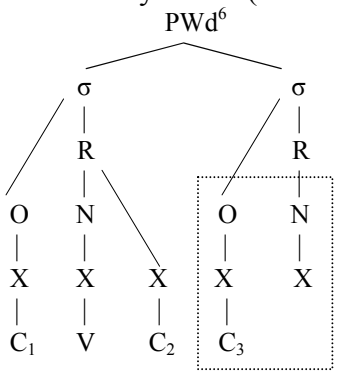
UG also provides a set of syllabification-related parameters, several of which are directly relevant here. The first of these concerns syllabicity:

(5) SYLLABICITY PARAMETER (e.g. Zec 1988; Clements 1990)
Vowels (unmarked) or Vowels and Sonorants (marked) may serve as syllable heads.[5]

The setting of the Syllabicity Parameter determines which segments can be syllabified within the nucleus in a given language. Whereas French is unmarked in that only vowels can occupy nuclear positions, in English vocalic nuclei as well as syllabic liquids (*table* [tej.bl̩], *letter* [lɛ.tɹ̩]) and syllabic nasals (*button* [bʌ.tn̩], *prism* [pɹɪ.zm̩]) are possible.

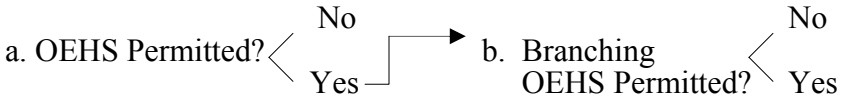
Following Kaye (1990), McCarthy and Prince (1990), Piggott (1999), and Goad and Brannen (2000) among others, I assume that languages have one further option as concerns the content of syllable nuclei: in the marked case, syllables may be empty-headed, that is, their nuclei may be phonetically unrealized. For example, at the right edge, languages may allow for onsets of empty-headed syllables (OEHS) as shown in (6).

(6) Onsets of Empty-Headed Syllables (OEHS)



In a limited number of languages, OEHS may also branch, as is the case in continental French, e.g. *table* [ta.bl], *lettre* 'letter' [lɛ.tʁ] (e.g. Charette 1991; Dell 1995; Piggott 1999). I assume that the presence or absence of OEHS, as well as the possibility of branching, is governed by a set of UG-provided parameters like the ones in (7).[7]

(7) ONSETS OF EMPTY-HEADED SYLLABLES (OEHS) PARAMETER



[5] Arguably, there exists a third possibility for this parameter, (c) Vowels, Sonorants, and Obstruents may serve as syllable heads (e.g. Bell 1978). This third setting is, however, irrelevant to the current discussion.
[6] Foot structure is omitted from all representations for ease of exposition.
[7] Alternatively, these parameters can be formulated in terms of prosodic licensing and Licensing Inheritance (Harris 1997). For the needs of the present discussion, the descriptive formulation given in (7) will suffice.

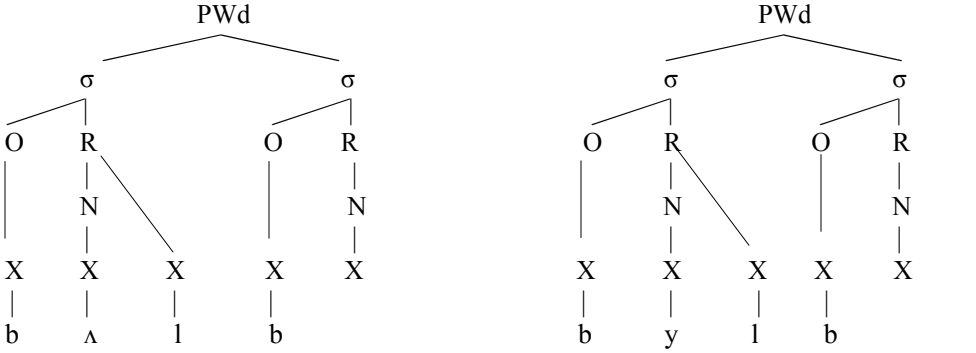
1.1. The Representation of English and French Word-final CC Clusters

In the preceding section, we outlined the prosodic principles and parameters relevant to the syllabification of word-final consonant clusters. We will now propose the representations for both English, the learners' L1, and French, the target language.

1.1.1. The Representation of Word-final Liquid-Obstruent Clusters

The representation of word-final liquid-obstruent[8] clusters is given in (8).

(8) a. English *bulb* /bʌlb/→[bʌlb] b. French *bulbe* /bylb/→[bylb]



The two representations are identical: in both languages, /l/ is syllabified as a coda. Binarity (4) precludes /b/ from being syllabified within the rhyme. As both English and French allow for OEHS, /b/ is syllabified as such.

1.1.2. The Representation of Word-final Nasal-Obstruent Clusters

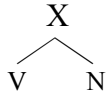
The representation of English word-final nasal-obstruent clusters (12a) is identical to that of the liquid-obstruent clusters in (8). This is not the case, however, in French. Indeed, in French, underlying VN sequences are phonetically realized as nasalized vowels. I adopt the view that French surface nasal vowels are derived from underlying /VN/ sequences (e.g. Schane 1968; Dell 1995; Paradis and Prunet 2000). The difference between English and French in the syllabification of nasal-obstruent clusters is related to their input representation: whereas English post-vocalic nasals are underlyingly specified for X-slots (9a), their French counterparts are not (9b).

(9) a. UR: English *bond* /bɑNd/ b. UR: French *bonde* /boNd/

During syllabification, the French nasal is linked to the X-slot dominating the preceding vowel as in (10).

[8] While phonetically a fricative, French /ʁ/ patterns phonologically as a liquid.

(10)

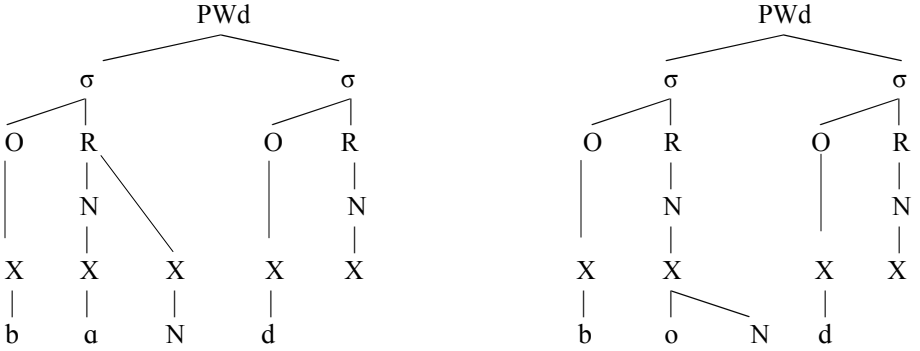


This representation is phonetically interpreted as a nasalized vowel (e.g. *bon* 'good' /boN/ → [bɔ̃]). In order for such a difference to be possible, I assume that UG allows inputs in which segmental material is not dominated by X-slots, in the marked case. Languages will vary parametrically as to whether or not such segmental content can be licensed in the dependent position of a branching X-slot.[9] As concerns the lexical nasal vowel structure in (10), the relevant parameter is given in (11) below.

(11) BRANCHING X-SLOT (NASAL) PARAMETER
A nasal cannot (unmarked) or can (marked) be licensed in the dependent position of a branching X-slot.

English has the unmarked setting of this parameter, while French has the marked setting. The surface representations for English and French word-final nasal-obstruent clusters are given in (12) below.

(12) a. English *bond* /bɑNd/→[bɑnd] b. French *bonde* /boNd/→[bɔ̃d][10]



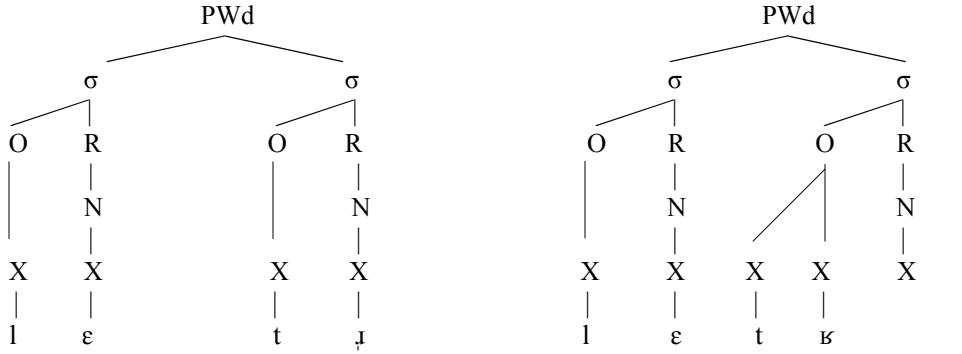
1.1.3. The Representation of Word-final Obstruent-Liquid Clusters

The rising sonority profile of obstruent-liquid clusters precludes coda-OEHS syllabification. In English, where syllabic liquids are possible, word-final obstruent-liquid clusters are syllabified as onset-nucleus sequences. Such a syllabification is not possible in a language like French where only vowels can be syllabic. As stated earlier, in French word-final obstruent-liquid clusters are syllabified as branching OEHS. The representations for both languages are given in (13).

[9] Arguably there will be a series of subparameters, one for each of the four structures commonly assumed to involve branching at the level of the X-slot (i.e. affricates, prenasalized stops, rising diphthongs and lexical nasal vowels).

[10] Following Dell (1995) and Piggott (1999), I assume that French word-final singleton consonants are syllabified as OEHS.

(13) a. English *letter* /lɛtɹ/→[lɛtɻ] b. French *lettre* /lɛtʁ/→[lɛtʁ]



In summary, there exist important differences between English and French in the representation of word-final nasal-obstruent and obstruent-liquid clusters. The difference in the syllabification of nasal-obstruent clusters is directly related to the fact that, while French allows a nasal segment to be licensed in the dependent position of a branching X-slot, English does not. Two parameters account for the difference in the syllabification of obstruent-liquid clusters. Whereas English allows for syllabic liquids, French does not. Moreover, although both languages allow for word-final OEHS, only French allows OEHS to branch. Indeed, in French, the liquid of a word-final obstruent-liquid cluster is syllabified in the dependent position of a branching OEHS. These differences are summarized in Table 1 in terms of parameter settings.

Table 1: Syllable Structure Parameters

Parameter		English	French
1	Syllabicity: Syllabic Sonorants?	Yes	No
2	a. OEHS Permitted ?	Yes	Yes
	b. Branching OEHS Permitted ?	No	Yes
3	Nasals licensed in dependent position of X-slot?	No	Yes

Thus, in order for English learners of French to acquire native-like syllabifications of word-final nasal-obstruent and obstruent-liquid clusters, they must reset parameters 1, 2b, and 3 to the target French values.

2. Experiment

In order to test the English subjects on their syllabification of the French word-final clusters in question, an experiment was carried out as described in the following sections.

2.1. Subject Group

Thirty-seven learners of French, all native speakers of (North) American English, and 10 native French speaker controls participated in the experiment. The 37 learners were subsequently grouped into four proficiency levels (novice, beginner, intermediate, advanced), primarily based on their score on the grammatical component of the Laval Test of proficiency in French as a Second Language. All of the learners had received formal instruction from native speaker teachers at some point. As ultimate attainment is

the focus of the present study, all further discussion will concentrate on the Advanced group (n=10; average age: 24; average age of first exposure to French: 11).

2.2. Stimuli

Learners were tested on their syllabification of 50 different words ending in one of the three cluster types under study (liquid-obstruent: n=12; nasal-obstruent: n=18; obstruent-liquid: n=20). The cluster bank is given in Table 2 below.

Table 2: Cluster Bank

	Liquid-Obstruent			Nasal-Obstruent			Obstruent-Liquid		
	Lab	Cor	Dor	Lab	Cor	Dor	Lab	Cor	Dor
Voiced	*courbe* *bulbe*	*corde* *tilde*	*orgue* *algue*	*bombe* *jambe* *rhombe*	*bonde* *dinde* *onde*	*gangue* *langue* *mangue*	*cible* *table* *ombre* *zèbre*	*cadre* *foudre*	*aigle* *sigle* *pagre* *tigre*
Voiceless	*carpe* *poulpe*	*porte* *volt*	*arc* *foulque*	*lampe* *tempe* *trompe*	*comte* *conte* *tente*	*banque* *conque* *scinque*	*couple* *temple* *câpre* *pourpre*	*huître* *lettre*	*boucle* *socle* *ancre* *sacre*

Clusters were controlled both for voicing and place of articulation. All words were uninflected/non-derived and phonetically monosyllabic.

The fifty words were randomly divided into ten sets of five words each. For each set of words, three elicited production tasks were conducted in the order given in Table 3. All subjects were administered the same version of the test, which included all 10 groups of clusters. Depending upon the subject's level of French, the proficiency test and the elicitation tasks took between 30 and 45 minutes; no break was given between the tests.

Table 3: Task Design

Task	Description
1st Task: Repetition	*Stimuli*: word and corresponding image are presented visually; recording of word is simultaneously presented twice aurally through headphones; *Response*: subject repeats the word aloud
2nd Task: Reading	*Stimuli*: a sheet of five sentences is presented where each sentence contains one target word; words occur both phrase-medially and phrase-finally and are accompanied by small version of same images given in Repetition task; *Response*: subject reads each sentence aloud
3rd Task: Naming	*Stimuli*: subject is presented with same images as in Repetition task, minus labels, and asked *Qu'est-ce que c'est?* ('What is this?') *Response*: subject names images

The tasks described in Table 3 were constructed to elicit progressively decreasing levels of conscious attention to pronunciation. In the discussion of the data (§3), we will limit ourselves to the results of the Naming task; it is arguably the most representative of the learners' underlying competence as the memory requirements of a naming task made it more difficult for subjects to focus on their pronunciation. Furthermore, this task was the most likely to be free of the effects of learners chunking the stimuli (i.e. repeating in a

rote fashion), as might be possible in the Repetition task, and was less likely to be biased by orthography than the Reading task (cf. Young-Scholten 1997).

The delivery of the stimuli and the recording of the subjects' speech were accomplished using Marantz tape recorders, Grado SR-60 headphones, and a multidirectional microphone. The testing sessions were transcribed by the author and then verified by one of two trained transcribers, the first a native speaker of French, the second a professional linguist. Both transcribers were trained in phonetics and had had previous experience in phonetic transcription of experimental data.

3. Results

Reponses were coded in terms of category based on linear surface order: (i) one-to-one parse of the underlying form ('C_1C_2' in the tables); (ii) deletion of one of the two consonants ('Del C_1' or 'Del C_2'); or (iii) epenthesis ('C_1C_2v', 'C_1vC_2', or 'Del C_1/C_2 + v').[11] Let us now examine the results for each of the cluster types in turn.

3.1. Liquid-Obstruent Clusters

Table 4 gives the group means for the liquid-obstruent clusters (e.g. Target *bulbe* /bylb/→[bylb]) for the Advanced learners and Native speakers on the Naming task. The leftmost column 'C_1C_2' corresponds to the coda-OEHS syllabification posited in the representations in (8).

Table 4: Groups Means for Liquid-Obstruent Clusters (Naming Task)

	n	C_1C_2	C_1C_2v	Del C_1	C_1vC_2	Del C_2
Advanced Learners	114	.80	.16	.04		
Native speaker	119	.55	.45			

The most striking aspect of the above data is the use of epenthesis[12] (i.e. 'C_1C_2v') by both the Advanced learners and the Native speakers (e.g. *bulbe* /bylb/→[bylbə̲]). As a group, the Advanced learners epenthesized 16% of the time (range=0-58%) while the Native speakers epenthesized almost half of the time (range=0-83%). Otherwise, responses were as predicted (i.e. C_1C_2).

As we will see shortly, epenthesis was used by both groups in the syllabification of all three types of clusters. Note that epenthesis was not predicted based on the representations given in §1.1. Two possible explanations exist for this phenomenon. The first is that epenthesis was a test effect; some weight must be given to this hypothesis. It is imaginable that both the L2 learners and particularly the Native speakers were very conscious of their pronunciation, hoping to 'do well' on the test, and that the forms elicited were typical of a careful, formal register of French. For that matter, in standard

[11] It was possible that both deletion and epenthesis could figure in the same syllabification (e.g. *bulbe* /bylb/→[bybə]). Such forms were infrequent for all levels of learners, particularly for the advanced learners. When they did occur, they were coded as 'Other' and excluded from the statistical analysis.

[12] 'Epenthesis' should be understood as 'word-final [ə] epenthesis'.

French, careful, formal pronunciation, including stylistic reading (e.g. poetry, song) and focused speech (e.g. newscasters, politicians), is often accompanied by word-final schwa epenthesis.[13] However, while a register-based test effect might be responsible in part for the Native speakers' epenthesis, it is unlikely that it is the main source of the Advanced learners' epenthetic forms; L2 learners generally have little exposure to such highly stylized, formal registers. Rather, they are more likely to use a single register resembling the vernacular. Thus, there must be another explanation for the epenthesis.

The second possible explanation for the rate of epenthesis attested in the data is that some degree of epenthesis is representative of the natural realization of such clusters. Such a hypothesis is not without support. Sociolinguistic studies have commented on the productivity of final schwa epenthesis in standard French (e.g. Morin 1978). Furthermore, Fónagy (1989:239) underlines a possible change in progress whereby the rate of word-final epenthesis is increasing among younger speakers; all of the control subjects would fall into such a group based on age. Thus, while the Native speakers' epenthesis was undoubtedly due in part to a register-based test effect, it is also the case that the data is representative of the Native speakers' phonological competence. Accordingly, one can propose that the Advanced learners' epenthesis resulted from their having been exposed to input containing some epenthetic forms; that is, epenthetic forms were also target-like.

To conclude the discussion of the liquid-obstruent data, note that the epenthesis attested in the data does not put into question the representations posited in §1.1. If we compare forms syllabified as C_1C_2 (e.g. target form [bylb]) or C_1C_2v (target form + epenthesis; e.g. [bylbə]) with reference to the representations given in (8), we see that the two forms differ only in whether or not the nuclear position of the second syllable is spelled out. Epenthesis can be understood as the filling of a nuclear position, a position also present in the non-epenthesized form.

3.2. Nasal-Obstruent clusters

Table 5 gives the group means for the nasal-obstruent clusters (e.g. Target *bonde* /boNd/→[bɔ̃d]). Once again, the leftmost column, here 'Del C_1', represents the proposed target syllabification.

Table 5: Group Means for Nasal-Obstruent Clusters (Naming Task)

	N	Del C_1	Del C_1 + *v*	C_1C_2	C_1C_2v	Del C_2	Del C_2 + *v*
Advanced Learners	172	.58	.09	.31		.02	
Native Speaker	174	.63	.33	.02	.02		

Two characteristics of the data merit comment. First, while the percentage of clusters syllabified using the 'Del C_1' means is almost identical for the Advanced learners and

[13] The fact that the words in the Naming task were pronounced in isolation most probably also favoured some epenthesis. However, epenthesis also occurred in the Reading task where target forms appeared in context.

Native speakers, the overall rate of deletion for the Advanced learners is only 67% (Del C_1: 58%, Del C_1 + *v*: 9%); whereas the native speakers 'deleted' the nasal essentially in all cases,[14] the Advanced learners syllabified the nasal as they would in their L1 (i.e. C_1C_2) in almost one-third of the tokens. Second, epenthesis is once again rather frequent (i.e. 35%) in the Native speakers' syllabifications.

3.3. Obstruent-Liquid Clusters

Table 6 gives the group means for the obstruent-liquid clusters (e.g. Target *lettre* /lɛtʁ/→[lɛtʁ]). Note that 'C_2' of 'C_1C_2' was never realized as a syllabic liquid. The rate of epenthesis (i.e. C_1C_2v) is high for both the Advanced learners (50%) and the Native speaker controls (65%); the performance of both groups is highly similar.

Table 6: Obstruent-Liquid Clusters (Naming Task)

	n	C_1C_2	C_1C_2v	Del C_2	Del C_2 + *v*	Del C_1	Del C_1 + *v*
Advanced Learners	197	.48	.50	.02			
Native Speaker	193	.35	.65				

4. Discussion

If an L2 learner has acquired a native-like grammar, we should expect such a grammar to have two important properties. Specifically, both the parameter settings of the learner's grammar as well as the surface representations generated by that grammar should be like those of a native speaker. The data reported above suggests that both of these expectations are met.

As concerns the relevant syllable-related parameter settings, earlier we posited that learners must reset three of the four parameters in Table 1. First, English learners of French must reset the Syllabicity Parameter (5) so that only vowels can serve as syllable heads. As stated in §3.3., none of the Advanced learners' syllabifications involved syllabic liquids. The total absence of syllabic liquids is concrete evidence that the Syllabicity Parameter has been reset in the learners' grammars. Second, the L2 learners needed to reset the second part of the OEHS Parameter (7b), which allows for branching OEHS, a structure illicit in their L1 grammar. The data in Table 6 supports the resetting of this parameter. The only parameter setting capable of generating the forms in the first column 'C_1C_2', where C_2 is not a syllabic liquid, is the 'yes' setting of the branching OEHS subparameter. Had the Advanced learners not reset this parameter, there should have been *no* branching OEHS in the data. Furthermore, note that a grammar with the 'yes' setting is capable of generating both the epenthetic and the non-epenthetic syllabifications, as attested by the Native speakers' outputs; the presence of epenthetic forms, when co-existent with non-epenthetic forms, cannot be used to argue against resetting of the branching OEHS parameter. Third and finally, English learners of French

[14] The .02 in the 'C_1C_2' column as well as the .02 in the 'C_1C_2v' column come from one native speaker. While both the author and the native speaker transcriber agreed on this transcription, 'C1' is most probably not an actual segment but rather the nasalization on a prenasalized stop.

need to reset the Branching X-Slot (Nasal) Parameter (11) to the marked setting that allows nasal segments to licensed in the dependent position of an X-slot. Only with this setting can the target language representation of nasal-obstruent clusters in (12b) be acquired. If the parameter is not reset, learners will continue to syllabify NC clusters as coda-OEHS sequences. As shown in §3.2, two-thirds of the Advanced learners' syllabifications involved surface deletion of the nasal consonant. All of these syllabifications are consistent with and only with the target-language parameter setting of the X-Slot Linkage Parameter. Thus, the data in §§3.1-3.3 provide solid support for the resetting of all three parameters to the target-language values.

Let us now consider the learners' surface representations. As stated in §1.1.1, the representation of liquid-obstruent clusters is identical in English and French. As a result, such clusters are of limited use in evaluating ultimate attainment, as the L2 learners get the representation of such clusters 'for free'. However, given that the Native speakers variably realized such clusters via epenthesis, some support for native-like attainment would come from learners whose rate of epenthesis paralleled some native speaker control. Three such pairs exist as shown in Table 7 below. For each of these pairs, an Advanced learner and a Native speaker had essentially identical surface forms.

Table 7: Advanced Learner-Native Speaker Pairs (Obstruent-Liquid)

	n	C1C2	C1C2*v*	Del C2	Del C2+ *v*	Del C1	Del C1 + *v*
AF9	12	.42	.58				
NS9	12	.42	.58				
AF1	11	.55	.45				
NS3	12	.58	.42				
AF2	11	.82	.18				
NS10	12	.83	.17				

Let us now turn our focus to the nasal-obstruent and obstruent-liquid clusters. As already stated, the data in §3.2 clearly show that the Advanced learners' syllabification of nasal-obstruent clusters is not native-like; as a group, these learners are still failing to 'delete' the nasal one-third of the time. Note, however, that certain individual learners' syllabifications were highly target-like (AF10- Del C_1: .82; AF7- Del C_1: .89).[15]

Strong evidence for native-like attainment comes from the obstruent-liquid clusters. A comparison of the group means for the Advanced learners and the Native speakers showed that there was no statistically significant difference between their syllabifications ($F_{(1,18)}$=1.689, p=.210). Even stronger evidence comes from comparisons not of group but of individual means; consider the Advanced learner-Native speaker pairs given in Table 8 below.

[15] To this point, we have assumed that the advanced learners' syllabifications are generated by final state grammars. It may be the case, however, that some or all of the learners are still in the process of acquisition and have yet to attain their ultimate grammar. If this is the case, we should hypothesize that the learners' rate of nasal deletion will continue to increase with time. The only way to verify such a hypothesis would be with a subsequent study involving the same learners.

Table 8: Advanced Learner-Native Speaker Pairs (Liquid-Obstruent)

	N	C1C2	C1C2*v*	Del C2	Del C2+ *v*	Del C1	Del C1 + *v*
AF9	20	.15	.80	.05			
NS9	20	.15	.80			.05	
AF3	20	.30	.65	.05			
NS3	20	.30	.70				
AF1	18	.50	.50				
NS7	19	.53	.47				
AF4	18	.50	.50				
NS7	19	.53	.47				
AF8	20	.65	.35				
NS10	20	.65	.35				
AF7	20	.70	.30				
NS2	19	.74	.26				

The relevant observation is that for six of the ten Advanced learners, there was a Native speaker whose syllabification of the obstruent-liquid clusters was virtually identical. The striking similarity attested in all of these pairs constitutes strong evidence for native-like attainment.

5. Conclusion

The present study has forwarded solid evidence in support of the possibility of native-like attainment in the L2 acquisition of syllabification. The data reported here is consistent with parameter resetting of the three relevant syllable-structure parameters. Furthermore, while the Advanced learners' syllabification of the nasal-obstruent clusters differed both as concerns group and individual means, in their syllabification of the obstruent-liquid clusters, not only was there no significant difference between their group means and those of the Native speakers, six of the ten Advanced learners' syllabifications were highly similar, or even identical to those of Native speaker controls. In conclusion, while global evaluations of L2 learners 'accent' may allegedly refute the possibility of native-like interlanguage grammars in the domain of phonology, this study has shown that close inspection of individual parameters and representations may reveal L2 grammars to be highly native-like, both as concerns parameter settings and surface representation.

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