

# NASALIZATION AND DRAWL IN CENTRAL YIDDISH

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## 1 Introduction

This paper deals with two phenomena in Central Yiddish (Jacobs 1990, 2005): nasalization and drawl. These phenomena are conditioned by syllabic weight and prepausal position, which at first sight implies a metrical process governed by moras and feet. Nevertheless, we will show that it is by no means necessary to use a prosodic hierarchy to account for them. Instead, direct, lateral relations between syllabic constituents suffice. An analysis is proposed within the autosegmental theory of strict CV (Lowenstamm 1996, Scheer 2004). Two lateral relations are assumed within this theory to account for the syllabic structure: licensing and government. We show that nasalization follows from licensing, and drawl follows from government.

The paper is structured as follows. In section 2, we provide the empirical data. Section 3 introduces the theoretical framework. Section 4 illustrates how the phenomena follow from the theory. The conclusion highlights two aspects of the account. First, seemingly metrical phenomena can be covered without reference to moras or feet. Second, the results carry implications for theories of consonantal strength.

## 1 Empirical data

All of the data in this paper come from work with a native speaker.<sup>3</sup> The variety is that of the town of Plotsk, slightly to the north-west of Warsaw. As is typical of Central Yiddish, this variety

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3 We thank our consultant Jean Spector for the long hours he spent with us exploring his native pronunciations. Other speaker who assisted in this study are (in alphabetical order) Dov Faust, Eliezer Niborski and Jean Lowenstamm.

exhibits five vowel phonemes /a,u,i,e,o/. Length is contrastive, e.g. /looʒ/ ‘louse’, /loʒ/ ‘let’.<sup>4</sup> There are also two diphthongs /oj/ and /aj/. A third diphthong [ej] is not contrastive with a long /ee/.

## 1.1 Nasalization

A consonant /n/ in word-final position is very often elided after diphthongs and long vowels (1a). Its underlying presence is nevertheless reflected in the nasalization of the vowel. The final /n/ reappears before vowel-initial suffixes, and the stem vowel is not nasalized (as a rule). Importantly, this alternation is not attested after short vowels (1b).

### (1) Nasalization

a.			b.		
Unsuffixed	Suffixed		Unsuffixed	Suffixed	
fūū	fuun-ən <sup>PL</sup>	‘flag’	nun	nun-ən <sup>PL</sup>	‘the letter ן’
dīī	diin-ən <sup>INF</sup>	‘serve’	din	din-ən <sup>PL</sup>	‘law’
ʃpjōō	ʃpjoon-ən <sup>PL</sup>	‘spy’	ton	ton-ən <sup>PL</sup>	‘ton’
bāā	baan-ən <sup>PL</sup>	‘train’	man	man-ən <sup>PL</sup>	‘husband’
tṣēj	tṣejn-ər <sub>i</sub> <sup>5</sup>	‘ten’	bren	bren-ən <sup>INF</sup>	‘burn’
vōj	vojn-ən <sup>INF</sup>	‘dwell’			
vāj	vajn-ən <sup>INF</sup>	‘weep’			

Elision and nasalization also occur between a branching nucleus and a consonant-initial suffix, e.g. [fūū-dl] ‘flag-DIM’. However, these phenomena are not attested after a non-branching nucleus (e.g. [zɪnt] ‘sin’), and there are only few historical examples of branching nuclei before a non-final homomorphemic consonant (e.g. \**frajnd* > [fʁāāt] ‘friend’). Thus, we can establish as a generalization that only root-final /n/ are subject to elision in Yiddish.

The pattern in (1) exhibits an interesting interplay between the realization of a final consonant and the length of a preceding vowel. Such interactions bring to mind the ban on trimoraic syllables discussed by Hayes (1989: 291). If the ban on trimoraic syllables is admitted in Central Yiddish, nasalization results from a repair mechanism that delinks the final /n/ when it follows a bimoraic nucleus. However, one might raise the following questions: i. why can bimoraic nuclei be followed by final consonants other than /n/, and ii. why is the problem solved by nasalisation, as opposed to Closed Syllable Shortening? In this paper, we adopt a theory that does not admit moras at all, but proposes a solution to these two issues.

4 Short vowels may be realized laxer than long vowels, e.g. [loos] ‘louse’, [lɔs] ‘let’. In our transcriptions, we ignore this non contrastive phonetic issue.

5 ‘tenner (for instance for a ten dollar bill)’

## 1.2 Drawl

Drawl is the process whereby a vowel is broken in two, resulting in hiatus: /vuus/ ‘what’ is pronounced [vúuəs].<sup>6</sup> Central Yiddish exhibits drawl in stressed, long vowels before a prepausal consonant. The vowels that undergo drawl are /uu,oo/ before the coronal consonants /t,d,s,z,l/ (2a), and /uu,oo,ii,ee/ before the uvular consonants /ʁ,χ/ (2b).<sup>7</sup>

### (2) Drawl

a.				b.			
	<u>_#</u>	<u>_##</u>			<u>_#</u>	<u>_##</u>	
/_s/	vuus	vuuəs	‘what’	/_χ/	biiχ	biiəχ	‘book’
	aroos	arooəs	‘out’		nuuχ	nuuəχ	‘behind’
/_z/	nuus	nuuəs	‘nose’		booχ	booəχ	‘stomach’
	loos	looəs	‘louse’	/_ʁ/	fiiʁ	fiiəʁ	‘four’
/_t/	ftuut	ftuuət	‘town’		puuʁ	puuəʁ	‘pair’
	hoot	hooət	‘skin’		dooʁ	dooəʁ	‘last (v.)’
/_t/	buut	buuət	‘bath’		veeʁ	veeəʁ	‘who’
	moot	mooət	‘young lady’				
/_l/	muul	muuəl	‘time’				
	fool	fooəl	‘lazy’				

All final stressed vowels in Central Yiddish are long. They never undergo drawl (3a). Short vowels never undergo drawl (3b).

### (3) No drawl

a.			b.				
	<u>_#</u>	<u>_##</u>		<u>_#</u>	<u>_##</u>		
	bluu	bluu	‘blue’		nul	nul	‘zero’
	fʁoo	fʁoo	‘wife’		los	los	‘let’
	kii	kii	‘cow’		ʃtrɔiχ	ʃtrɔiχ	‘line’

The two effects, nasalization and drawl, are combined in /uu,oo/ before final /n/ (4). This is surprising: the nasalized vowel is final, and should behave like the vowels in (3a). Instead, it behaves like the vowels in (2a), as if it were followed by a consonant.

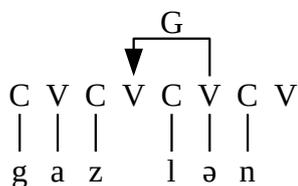
6 Jacobs (2005:96) points out that the realization of drawl can regionally vary between V:ə, VGə (G = glide) and Və (e.g. /buud/ → [buuəd] ~ [buwəd] ~ [buəd]). Here we adopt Jacobs’ (2005) transcription [V:ə].

7 We found no case of long vowels occurring before an affricate [tʃ].

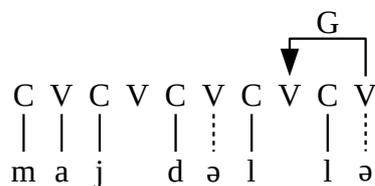


$V_{n-1}$ , thereby inhibiting its realization. However, if  $V_n$  is itself empty, an empty  $V_{n-1}$  cannot remain silent and either  $V_n$  or  $V_{n-1}$  will be realized through epenthesis (6b).<sup>9</sup>

(6) a. [gəzlən] ‘robber’

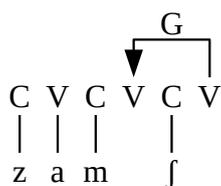


b. [majdələ] ‘young lady (dim.)’



We’ve seen the representation of i. words ending in a consonant and ii. words with adjacent consonants. The two conditions can be combined: a word can end in adjacent consonants. In that case, as shown in (7), the last two V-slots of the skeleton are empty. The ultimate or the penultimate V-slot is therefore expected to be realized. Indeed, many languages exhibit epenthesis in final underlying cluster. However, many other languages, and Yiddish among them, do admit final clusters. Within Strict CV, this means that the FEN, although empty, can govern the preceding empty nucleus. The ability of the FEN to govern may be regarded as following from the property that it shares with contentfull nuclei: it is not governed.

(7) [zəmf] ‘suede’

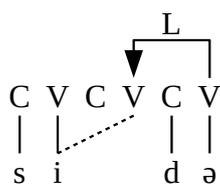


## 2.2 Licensing

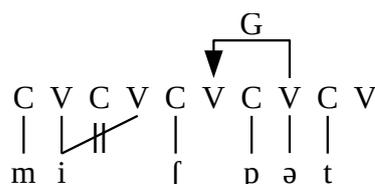
Length in Strict CV is straightforwardly represented as one-to-many association between a segment and two slots. Thus, the word [siidə] ‘feast’ is represented as in (8a). Many languages, including Yiddish, exhibit a ban on long vowels in closed syllables. This restriction is one possible manifestation of the ban on trimoraic syllables mentioned earlier. Rather than referring to the prosodic structure of the word, Lowenstamm (1996) links this effect, too, to the status of the following nucleus. The length of a vowel is licensed by a following contentful nucleus. Scheer (2004) argues that this lateral relation must be distinct from government: government inhibits realization, whereas in this case the realization is assisted. He dubs this relation “licensing”. Closed syllable shortening thus follows from the lack of licensing from the following nucleus. This is illustrated for the impossible word \*[míjʔət] in (8b).

9 The case in (6b) is taken from Faust (2018). He analyzes this form as a “double diminutive”, involving the addition of diminutive suffix /l/ not once but twice. This scenario yields three consecutive empty nuclei. The final [ə] is inserted in order to avoid haplology in [lə]. The medial [ə] is inserted because its position is not governed. Cases of Yiddish epenthesis are rare and conditioned by multiple factors. We do not intend to provide a complete explanation of this phenomenon here.

(8) a. [siidə] ‘feast’

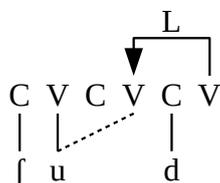


b. \*[miipət], but [mispət] ‘law’



As in many languages with closed syllable shortening, final consonants in Central Yiddish do not count as closing the syllable. Thus, as was already shown in (3) above, long vowels may precede a final consonant. This is in fact predicted by the model. We've seen that FENs behave like contentful nuclei for the purpose of government, it is therefore not surprising that they can also license (9).

(9) [fuud] ‘shame’



Finally, just as the FEN can be empty without being governed, it can also host vowel spreading without being licensed. This aspect is represented by the long final vowel of [fʊo] in (10).

(10) [fʊo] ‘wife’



We have introduced the notions of government and licensing. We will now see that government accounts for drawl, and licensing for nasalization.

### 3 Analysis

#### 3.1 The Representation of /n/

Before addressing the issue of nasalization, it is important to understand why *only* /n/ drops in the final position after a long vowel. This consonant has a tendency to be homorganic both cross-linguistically and in Yiddish (Jacobs 1995:113-114). This tendency reveals the absence of an underlying place feature in /n/, which is later acquired as a result of assimilation or default insertion. But what remains in /n/ if we remove the place of articulation? Voicing is not contrastive in Yiddish nasals, and so, when stripped of its place, /n/ is essentially made of a lone mode feature: nasality. Interestingly, the fewer features the consonant bears, the more



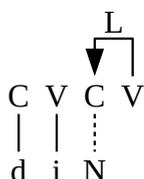
- (14) Final [N] is afloat (unassociated) underlyingly

Based on the specific generalizations in (12) and (14) concerning the representation of nasals, we will show that the relation between nasalization and drawl follows the principles of Government Phonology.

### 3.2 Nasalization and Licensing

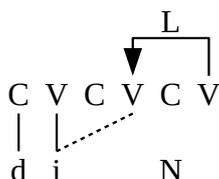
We discuss below cases like [din] (i.e. no final /n/-dropping after a short vowel), [dĩĩ] (i.e. final n-dropping after a long vowel) and [diinən] (i.e. no medial n-dropping). As shown in (9) above, a FEN is a legitimate licenser in Yiddish. Thus, in (15), a final /n/ after a short vowel is licensed and can be linked to the C-slot. This is also the case of the syllabic nasal in (11).

- (15) [din] ‘law’



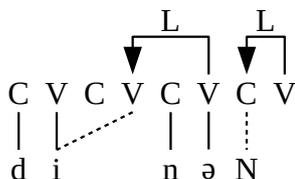
We also saw that licensing from the FEN is required in order to maintain a long vowel before final consonants. This leads to the conflict in (16): in a sequence /VVn#, both the nasal and the long vowel before it require licensing from the FEN. Only one of the two can be licensed. It seems that the vowel is prioritized in this situation. As a consequence, the nasal may not associate to its position. Instead, it remains afloat and is realized as nasalization on the preceding vowel.

- (16) [dĩĩ] ‘serve’



When the same noun is suffixed, as in (17), the nasal is not final. It therefore does not need to be floating, and nasalization does not occur systematically.

- (17) [diin-ən] ‘serve-INF’



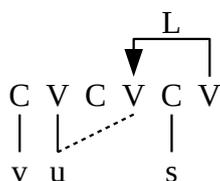
Licensing underlies nasalization and its distribution in Central Yiddish. It motivates the absorption of a final nasal into a preceding long vowel, but its retention after short vowels.

### 3.3 Drawl and Government

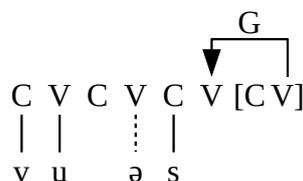
In this subsection, we discuss cases such as: [vuuəs] (i.e. drawl before a prepausal coronal consonant), [bluu] (i.e. no drawl in final position), [nul] (i.e. no drawl after a short vowel), [fūūə̃] (i.e. the correlation between drawl and nasalization) and [fi̯ə̃] (drawl before non-coronal consonants). In order to understand drawl, one must first understand pause. In line with Lowenstamm (1999) and Scheer (2000), Pagliano (2003) argues that phonological effects at the utterance level must follow from phonological representations (rather than diacritics signaling frontiers, such as the prosodic hierarchy). She argues that edges and pauses might be phonologized through the addition of skeletal units. Accordingly, we will hypothesize here that pause is exponed by the only skeletal unit, the CV unit.

The addition of the CV unit of the pause has the following effect. The nucleus after the final consonant, which in context is the FEN (18a), is no longer final in (18b). It becomes a regular empty nucleus. Non-final empty nuclei need to be governed. When governed, they may neither license nor govern. Thus, being unlicensed, the second nucleus of the long vowel in (18b) cannot be occupied by it; nor can it remain empty, because it is ungoverned. It is neither engaged nor inhibited, and must therefore be realized. This is drawl.

(18) a. [vuus] ‘what’

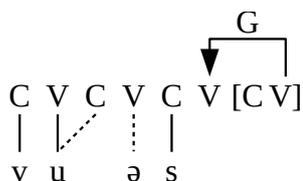


b. [vuəs] ‘what’



Note that the derived form in (18b) is [vuəs], not [vuuəs]. As reported in fn. 6, Jacobs (2005) mentions regional variation between V:ə, VGə and Və. This variation can be captured by the theory. After the schwa is inserted, the preceding vowel can spread to the C-slot on its right to avoid hiatus (19). Provided that the distinction between a high vowel and its glide equivalent is not unequivocal, this spreading can be interpreted as in [vuwəs] or [vuuəs]. We will not indicate this spreading in the following representations.

(19) [vuwəs]~[vuuəs] ‘what’



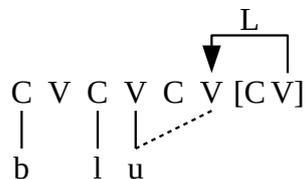
The representation of drawl in (18) explains why it does not occur in final position or within a short vowel. We saw that, when it is in final position, a long vowel does not need to be licensed (20a). In a prepausal context, its second position is not an FEN anymore and it does

need to be licensed in order to host a long vowel (20b). This is made possible by the FEN on its right which, as we saw in the previous section, is a legitimate licenser.

(20) a. [bluu] ‘blue’



b. [bluu] ‘blue’

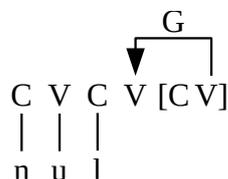


After a short vowel, the only empty nucleus is the final one (21a). In prepausal context, this nucleus is governed by the FEN and nothing happens (21b).

(21) a. [nul] ‘zero’

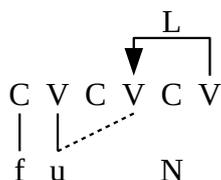


b. [nul] ‘zero’

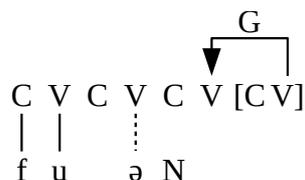


We already saw that the loss of final /n/ after a long vowel and the nasalization of that vowel are due to the fact that the FEN needs to license the long vowel to the detriment of the nasal consonant (22a). In prepausal context (22b), neither the nasal consonant nor the long vowel can be licensed or governed by the nucleus on their right because the latter is governed by the FEN of the pause. Therefore, none of them can be realized. The second position of the long vowel is filled by an epenthetic vowel and the nasal element is absorbed by the nucleus. We further assume that nasalization spreads through the hiatus and reaches the lexical vowel as well.

(22) a. [fũũ] ‘flag’



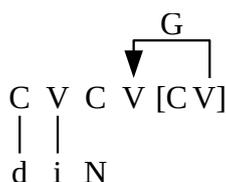
b. [fũũə] ‘flag’



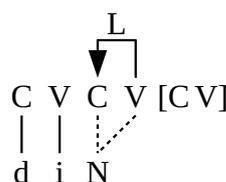
At this stage of the analysis, it seems impossible for a final nasal to be realized as a consonant in prepausal context, even if it is preceded by a short vowel (e.g. /din##/ ‘law’). Since the nucleus on the right of /n/ is governed by the FEN, it may not license the preceding nasal (23a). However, we saw that |N| can spread to a V position and license a preceding position. This is represented in (23b): |N| can spread to the nucleus position on its right and license its own onset slot.<sup>10</sup> This situation is not possible in (22b) since the nasal would necessarily license the preceding long vowel to its own detriment, thus being unable to occupy its own position (licensing may not have two targets simultaneously).

<sup>10</sup> See Scheer (2000) for a similar analyses for long vowels in languages without Closed Syllable Shortening.

(23) a. \*[dī] ‘law’



b. [din] ‘law’



Up to now, we discussed drawl without regards to the type of consonant which follows the underlying long vowel. But the distribution of drawl is slightly different before coronal on the one hand and before /ʁ,χ/ on the other. Before coronal consonants, only /u,o/ are impacted by the occurrence of a schwa in prepausal context. Before /ʁ,χ/, /i,u,o/ are impacted by this phenomenon. The questions are: i. why does drawl depend on the quality of the following consonant, and ii. why does drawl depend on the quality of the preceding vowel? We hypothesize that this is due to the internal composition of the different segments. An inventory of Yiddish consonants and vowels in terms of their Elemental constitution is provided in (24). The two classes of consonants which trigger drawl contain an element |A| (operator in coronals and head in uvulars). Interestingly, the schwa of the drawl also contains |A|. We conclude that the quality of the epenthetic vowel observed in drawl partly depends on the quality of the following consonant.

(24)

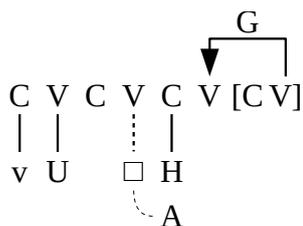
		Place					
Mode	ʔ	p,b	t,d		k,g		
	ʔ , H		ts,dz	ʦ,dʒ			
	H	f,v	s,z	ʃ,ʒ		χ,ʁ	h
	N	m	n				
			l	j		ʁ	

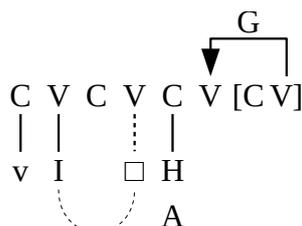
		Place		
Height		I	A	U
		i	ə	u
	A	e	a	o

When there is no observed drawl, it implies that the quality of the epenthetic vowel is conditioned by the preceding vowel. In other terms, there is a competition between the place elements of the preceding vowel and those of the following consonant to be absorbed by the epenthetic vowel. The case of [vuuəs] in (25a) suggests that |A| takes precedence over |U|. The case of [ziis] in (25b) suggests that |I| takes precedence over |A|, and the case of [biəχ] in (25c) suggests that |A| takes precedence over |I|.

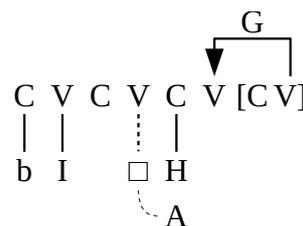
(25) a. [vuuəs] ‘what’



b. [ziis] ‘sweat’



c. [biəχ] ‘book’



To sum up, the hierarchy between elements follows the pattern in (26).

(26)  $\underline{A} > I > A > U$

This pattern leads to the predictions in (27). The black boxes represent long vowels followed by a palatal consonant. Such forms are not attested in Central Yiddish and the prediction cannot be confirmed or denied. White boxes represent cases where the element of the consonant takes precedence over the elements of the preceding vowel. This concerns /ii,ee,oo,uu/ before a uvular consonant and /oo,uu/ before a coronal consonant. Finally, grey boxes represent cases where the elements of the consonant do not take precedence over the elements of the preceding vowel. These forms have no observable drawl because the epenthetic vowel copies the quality of the preceding vowel.

(27)

		The final coda contains...			
		<u>A</u>	I	A	U
The vowel contains...	<u>A</u>	faaɤ 'fire'		tsaat 'time'	vaab 'wife'
	I	fiiæɤ 'four'		ziis 'sweat'	ftiib 'home'
	A	veeæɤ 'who'		beet 'ask'	deɤleeb 'live to see'
	AU	booəɤ 'stomach'		looəs 'louse'	n/a
	U	puuæɤ 'pair'		vuuəs 'what'	gɤuub 'fat'

To sum up, the syllabic conditioning of drawl, i.e. the fact that it affects long vowels in a prepausal context, is a correlate of lateral relations. Its segmental conditioning, i.e. its limitation to back, round vowels before coronals and high vowels before uvulars, results from the competition between elements to fill the ungoverned position.

## 4 Conclusion

We have discussed nasalization and drawl in Central Yiddish. The two phenomena involve the same configuration: a long, closed syllable at the edge of the word. Elsewhere in the literature (e.g. Hayes 1995), such syllables are referred to as "super heavy". Their heaviness is expressed in the number of weight units that they involve. In the framework adopted here, there are no weight scales, no weight units ("moras"), and no feet; only lateral relations between syllabic constituents. Using these lateral relations, we've accounted for the seemingly metrical phenomena at hand. We've shown how drawl follows from government and nasalization from licensing. No appeal to metrics-specific vocabulary was necessary. In that sense, our account shows that phenomena usually analyzed using metrical mechanisms do not necessarily depend on such arborescent representations. Instead, they can be captured using a flat representation of phonology. This conclusion joins previous work in challenging such an arborescent conception of metrics (Chierchia 1986, Larsen 1998, Scheer & Szigetvári 2005, Ulfsgjorninn 2014, Enguehard 2016, i.a.).



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