# Underspecification and the Distribution of Gottschee German Laterals

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**Abstract**: The underlying lateral in Gottschee German has both front [1] and back [1] allophones. I argue that the distribution of these lateral allophones is predictable if one adopts a model of coronal underspecification put forth by Rice (1994). I also posit a non-structure preserving dissimilation. This provides an argument against the assertion that dissimilations must be structure preserving (Ohala 1993; Kiparsky 1985; Hall 2008, 2009).

## 0. Introduction

In a dialect of German spoken in Gottschee (described in detail by Tschinkel 1908), a language island previously located in southern Slovenia, there are alternations between [1] and [1]. I analyze the alternating data using a model of feature geometry. According to my analysis, underspecified /L/ surfaces as [1] or [1] depending on the backness of the preceding vowel. In addition, an Obligatory Contour Principle (OCP) constraint militating against adjacent [PERIPHERAL] segments motivates a dissimilation, which causes /L/ to surface as [1] in a certain environment. This analysis bears on a number of theoretical issues. I argue for a model of coronal underspecification similar to the one proposed by numerous phonologists (Avery & Rice 1989; Rice & Avery 1991; Rice 1994, 1996). My analysis also provides evidence that dissimilations are not necessarily structure preserving – the output can be an allophone rather than a phoneme of the language, contrary to what is claimed by other linguists such as Ohala (1993:255–256), Kiparsky (1985:658), and Hall (2008, 2009).

The paper is structured as follows. In section 1 I present a description of the Gottschee language island. Section 2 contains background information about Gottschee German phonology that will be important for the remainder of the paper. I present my analysis of Gottschee German laterals in section 3. The theoretical issues are discussed in section 4 and the paper concludes in section 5.

## 1. Background on Gottschee German

Gottschee was an extremely isolated language island located in southern Slovenia. The precise origin of the Gottschee settlers is unknown, but based on family names and dialect features a good number were likely from Bavaria, Tirol, and Carinthia (Hauffen 1895:11, 14). The data for this paper were collected from Tschinkel's (1908) dissertation *Grammatik der Gottscheer Mund-art*, a very detailed descriptive grammar. In 1908, when Tschinkel wrote his dissertation, there were approximately 20,000 speakers living in the 15 square mile duchy (Tschinkel 1908:1). At that time, Gottschee consisted of six districts: Suchen, Hinterland, Oberland, Unterland, Walden, Untere Seite, and Moschnitze (Tschinkel 1908:4). Although Gottschee is relatively small, the

different districts show linguistic variation, sometimes significant (Tschinkel 1908:5). The majority of Tschinkel's examples are from the dialect variety spoken in Lichtenbach, his hometown (Tschinkel 1908:vii, 9). Due to the district-to-district linguistic variation that Tschinkel observes, I use only his examples from Lichtenbach.

#### 2. **Gottschee German Phonology**

This section provides background information on the relevant aspects of Gottschee German phonology. I first introduce the model of coronal underspecification adopted in this paper. I subsequently discuss the Gottschee German consonantal and vowel phonemes, as well as the place features for those phonemes.

#### 2.1. **Coronal Underspecification**

(1)

I adopt a model of coronal underspecification similar to the one proposed by Avery & Rice (1989), (Rice & Avery 1993), and Rice (1994, 1996). Autosegmental representations for coronals, labials and dorsals are illustrated in (1).

Model of coronal underspeci	ification	
A. Underlying ant. coronal	B. Underlying labial	C. Underlying dorsal
	PLACE	PLACE
	PERIPHERAL	PERIPHERAL
		DORSAL

The representation in (1a) shows that coronals bear no specification for [PLACE] or its daughter features (Davis 1991; Hall 1995 and the references therein). Non-anterior coronals are specified as [CORONAL, -anterior] and are thus underlyingly distinct from their anterior counterparts. Labials are represented as in (1b), where [PERIPHERAL] is a daughter of [PLACE]. Underlying labials are not specified for features such as [LABIAL] or [ROUND]. The final autosegmental representation in (1c) shows an underlying [DORSAL], which is also specified for [PERIPHERAL]. The important prediction is that dorsal segments will pattern with labial segments, to the exclusion of coronals, as the natural class of [PERIPHERAL] sounds.

Underspecification as presented in (1) only holds at the lexical level for underlying representations. On the surface, place features must be fully specified, either by application of a rule (Clements 2001:77) or via default rules (Hall 2001:18).

### 2.2. Gottschee German Consonantal Phonemes

The important distinctive features for Gottschee German (henceforth GG) consonants are presented in (2).

(2) GG distinctive consonantal features

-voice	р	t	k	$\mathbf{k}^{\mathbf{h}}$	f	S	ſ	х	h				
+voice	b	d	g		v	Z	3			m	n	r	L
PLACE													
high	—		+	+	—	—	+	+		—		—	
CORONAL													
PERIPHERAL													
LABIAL													
Dorsal													

A few comments are in order regarding the place features in (2). Tschinkel (1908:28, 154, 158) describes a true contrast between unaspirated /k/, aspirated /k<sup>h</sup>/, and /g/. This fact is interesting theoretically (see Iverson & Salmons 1995; Jessen & Ringen 2002), but is tangential to the current analysis. Regarding the sound /h/, I follow Hall (1992:17, and the references therein), who argues that /h/ lacks place features. Turning now to liquids, I consider there to be one underlying lateral, an underspecified archiphoneme /L/, which is [–continuant]. The rhotic /r/ is underlyingly specified as [DORSAL] and [+continuant]. See Hall (2009) for discussion about the phonological place features of /r/ in some German dialects being different from the phonetic realization.

The reader will note that only the anterior coronals /t d n/ are underspecified for [PLACE], whereas [s z] have both [PLACE] and [CORONAL] features. GG non-anterior coronals are [DORSAL]. In (3) I list the evidence for these features along with citations where the data can be found.

(3) Evidence for Gottschee German Underspecification

- a. /t n/ assimilate place (Tschinkel 1908:37–40)
- b. /s/ does not assimilate place for many speakers (Tschinkel 1908:39)
- c. /t/ is epenthetic takes PoA from an adjacent nasal (Tschinkel 1908:36–37; 136)
- d. /n/ assimilates [PERIPHERAL] from /ʒ r/ (Tschinkel 1908:42)

Any anterior coronals that do not receive specification of place features from the processes in (3a–d) become [CORONAL] via the default rule in (4).

(4) Coronal Default  $[0PLACE] \rightarrow [CORONAL]$ 

According to Coronal Default, any segment with unspecified place features receives a [CORONAL] specification.

## 2.3. Gottschee German Vowel Phonemes

I review the relevant aspects of the GG vowel system below. The table in (5) provides a summary.

(5) GG vowel phonemes and distinctive features

	i	e	a	0	u	У	ø	ə
PLACE								
high	+	_	_	_	+	+	—	—
low	—	_	+	_	_	—	—	—
CORONAL								
PERIPHERAL								
DORSAL								

As discussed in section 2.1., GG rounded vowels lack [LABIAL] and are instead specified as [PERIPHERAL]. The distinction between front vowels and back vowels is captured with the features [CORONAL] and [DORSAL], respectively (Rice 1994:205–206; Clements & Hume 1995). This contrasts with Rice (1996), who argues that [CORONAL] is only active in the vowel inventory when a language has a front vowel and central vowel of the same height since GG has the central vowel [ə] and [CORONAL] is a trigger for GG phonological processes, Rice's proposal holds in GG. I also assume that schwa is a [DORSAL] sound in GG. For additional vowel place features such as [high] and [round] in German, I refer the reader to Hall (1992:9), and Wiese (1996:32). These features are peripheral to the current analysis and will not be addressed.

## 3. The Allophones of Gottschee /L/

Tschinkel (1908:23–24) and Schröer (1869:26, 29) describe /L/ as having two allophones, each with multiple phonetic realizations. According to Tschinkel (1908:23) the first lateral [l] has an articulation whereby the front part of the tongue is raised and tensed and the tongue blade lies against the alveolar ridge.<sup>1</sup> For the second lateral [ł], the tongue tip is pressed against the upper incisors and the underside of the tongue lightly touches the lower incisors. The tongue body remains laxed and in as low a position as possible. The resonance chamber is much larger than that of [l] (Tschinkel 1908:23; Schöer 1869:24, 29). The examples in (6) provide evidence that there are synchronic alternations between [l] ~ [ł] in GG.

<sup>&</sup>lt;sup>1</sup> Tschinkel (1908:24) makes reference to a palatal lateral, which he also transcribes as [1]. This sound occurs only after /k g/. I consider this to be a low-level phonetic variant of the GG alveolar [1] because both the alveolar and palatal laterals seem to pattern identically in the GG phonology. In fact, in the section on GG /L/, Tschinkel (1908:138–147) collapses these data while keeping [1] separate.

	Alternations between	[1] ~ [1] (Tschinkel 1	908:139)	
a.	[ <b>1</b> ]	Gloss	[1]	Gloss
	[s bərt gəʒbał]	'It will swell'	[s gəʒbillət]	'It swells'
			[s iſt gəʒbøl]	'It is swollen'
b.	[łaːbəʃty aː nøχ]	'Are you also still	[i laːb nøҳ a peːze]	'I am still
		alive?'		alive'
c.	[łiəbai main ammo]	'My dear mother'	[main dai liəbə]	'My beloved'
	a. b. c.	<ul> <li>Alternations between</li> <li>a. [ł]</li> <li>[s bərt gəʒbał]</li> <li>b. [ła:bəʃty a: nøχ]</li> <li>c. [łiəbai main ammo]</li> </ul>	<ul> <li>Alternations between [1] ~ [ł] (Tschinkel 1</li> <li>a. [ł] Gloss [s bərt gəʒbał] 'It will swell'</li> <li>b. [ła:bəʃty a: nøχ] 'Are you also still alive?'</li> <li>c. [łiəbai main ammo] 'My dear mother'</li> </ul>	Alternations between [1] ~ [ł] (Tschinkel 1908:139)a.[ł][s bərt gəʒbał]'It will swell'[s gəʒbil]b.[ła:bəʃty a: nø\chi]'Are you also still[i la:b nøx a pe:ze]alive?'c.[łiəbai main ammo]'My dear mother'[main dai liəbə]

Each of the phrases in (6a–c) shows an alternation between  $[1] \sim [1]$ . In (6a), [gəʒbał] 'to swell' alternates with [gəʒbillət] 'swell' *3.sg.ind.pres.* and [gəʒbøl] 'swollen' *past.part.* The phrases in (6b) show alternations with the verb meaning 'to live', as in [1a:bəʃ] 'live' *2.sg.ind.pres.* and [la:b] 'live' *1.sg.ind.pres.* The final row (6c) shows the an adjective [1iəbai] 'dear' alternating with a noun [liəbə] 'beloved.'

Given the existence of the alternations in (6), I argue that there is an active phonological process governing the distribution of the two allophones of /L/. In the remainder of this section, I propose an analysis to capture the distribution of GG [1] and [1] by taking a closer look at the contexts for those two sounds.

## **3.1.** The Distribution of [1]

(7)

This section examines the contexts for GG [1], the so-called 'dark' lateral. The data in (7) show that this sound occurs after back vowels. The underlying representations will be justified below.

	[ł] occurs	after a back vow	el (Tschinkel 1908:141–142)
	UR	PR	Gloss
a	. /taːLar/	[taːłar]	'plate'
	/boLt/	[bołt]	'forest'
	/mu:Lar/	[muːłar]	'painter'
	/gəLikk <sup>h</sup> ə/	[gəłikk <sup>h</sup> ə]	'luck'
b	. Word inte	rnally after back	vowels (Tschinkel 1908:143)
	/roffL/	[roffł]	'to make a noise'
	/łampLe/	[łampłe]	'little lamp'
	/groppL/	[groppł]	'to grope around'
	/ra:bLe/	[raːbłe]	'small vine'
c	. [1] after a	back vowel and a	a coronal [t d n] consonant (Tschinkel 1908:143-144
	/pattLar/	[pattlar]	'beggar'
	/va:nLe/	[va:nłe]	ʻflag'
	/ſtuədL/	[[tuədł]	'barn'

In the examples in (7a), a back vowel is adjacent to /L/, which conditions [4]. These data are interesting with respect to the (7b–c) examples, which illustrate that consonants can intervene between the vowel and /L/. In (7b) those consonants are labials, or sounds with a [PERIPHERAL]

node, but no [DORSAL] feature. The words in (7c) illustrate that anterior coronal (underspecified) consonants can intervene between the back vowel and lateral. I propose an assimilation of [DORSAL] to account for the surface forms of /L/ in (7). Consider the rule in (8).



Dorsal Vowel Assimilation (DVA) spreads [DORSAL] from a vowel to non-nasal, sonorant consonant, or /L/. The result of the assimilation is [ł]. Importantly, the target of this rule is underspecified for [DORSAL].<sup>2</sup> Thus, DVA builds structure and cannot target a sound already specified for [DORSAL].

The reader may wonder why DVA spreads [DORSAL] rather than [PLACE] or [PERIPHERAL]. The representations in (9) are instructive.

(9) Adjacent GG sounds

[-consonantal] [+consonantal] | | | [PLACE] [PLACE] | | [PERIPHERAL] [PERIPHERAL] | [DORSAL]

The representations in (9) show a back vowel followed by a labial consonant, as in (7b). Observe that each sound has a place node and a peripheral feature. Thus, if [PERIPHERAL] were to spread from the vowel in (9), it would be blocked by the adjacent labial consonant because the features are on the same autosegmental tier. It might be tempting to suggest that the labial consonant spreads [PERIPHERAL] to the lateral, but in the following section I provide evidence that such an assimilation is impossible.

GG [1] also surfaces in word initial position, as in (10).

<sup>&</sup>lt;sup>2</sup> Since [DORSAL] can only target [PERIPHERAL] as a docking site, I assume that the latter feature is inserted by default. The insertion of [PERIPHERAL] prior to DVA is governed by the Redundancy Rule Ordering Constraint (Steriade 1995:129).

(10)		[1] occurs word initially (Tschinkel 1908:140)					
		UR	PR	Gloss			
	a.	/La:fə/	[łaːfə]	'diarrhea'			
	b.	/Lotənai/	[łotənai]	'litany'			
	c.	/Lettse/	[lettse]	'Alexius (name)'			
	d.	/Liftikh/	[łiftikh]	'quick'			

The examples in (10a–d) show that [ł] occurs word initially when a vowel follows. This vowel does not determine the quality of the lateral, however, because the vowel can be either front or back.

The data in (10) illustrate that the occurrence of word initial [1] cannot be predicted on the basis of the following vowel. I thus propose the default rule in (11).

(11) Lateral Default +sonorant -nasal  $\rightarrow$  [DORSAL]

Lateral Default states that a non-nasal sonorant becomes [DORSAL]. For word initial /L/, the output of the rule is [ $\frac{1}{2}$ ]. Lateral Default applies vacuously to those examples of [ $\frac{1}{2}$ ] derived by DVA, as well as /r/ and back vowels.

I turn now to a set of examples that look perplexing at first blush. Tschinkel (1908:142) notes that the GG lateral surfaces as [1] after the set of consonants [s z]. The examples in (12) are representative of this environment.

(12)	Peculiar environments for [1] (Tschinkel 1908:142)
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	UR	PR	Gloss
a.	/ʃteasL/	[ʃteasł]	'pestle'
b.	/gərzL/	[gərzł]	'gnaw'
c.	/k <sup>h</sup> rappsLe/	[k <sup>h</sup> rappsłe]	'small crab'
d.	/bastL/	[bastł]	'Sebastian'
e.	/pisLə/	[pisłə]	'a little piece'

I argue that the vocalic environment determines the quality of the lateral in (12). Consider that the coronal fricatives are underlyingly [CORONAL] (rather than underspecified; recall the features in table 2), a feature which is on a different autosegmental tier from [DORSAL]. Accordingly, [DORSAL] can spread from the back vowel to /L/ via DVA in (12a–d). In the final example (12e), [DORSAL] does not spread because the vowel is a front vowel. Thus, the lateral is assigned a [DORSAL] feature via Lateral Default.

## **3.2.** The Distribution of [1]

In the preceding section I argued that the GG dorsal lateral [1] predictably occurs after back vowels in word internal position. The data in (13) show that the coronal lateral [1] surfaces in the complementary context, after front vowels.

(13)		[l] occurs af	ter a front vow	el (Tschinkel 1908:141–142)
		UR	PR	Gloss
	a.	/myLtsn/	[myltsn]	'a child's game with little stones'
	b.	/ʃpiːL/	[ʃpiːl]	'game'
	c.	/tse:Lən/	[tseːlən]	'to count'
	d.	/hø:L/	[hø:1]	'hollow'

Each of the surface forms in (13a–d) has a front vowel followed by [1]. It is also possible for a coronal consonant to be situated between the front vowel and underlying lateral. Consider the data in (14).

(14) [1] after a front vowel and a coronal [t d n] consonant (Tschinkel 1908:143–144) UR PR Gloss

a.	/k <sup>h</sup> ittL/	[k <sup>h</sup> ittl]	'tunic'
b.	/ʃiːnLe/	[∫iːnle]	'small splint'
c.	/ʃtoaindLe/	[∫toaindle]	'small rock'

The examples in (14a–c) show an underlying sequence /...V<sub>FRONT</sub>CL.../ where the consonant is one of [t d n]. In this environment, the underlying lateral /L/ surfaces as [l]. I account for the words in (13–14) with the assimilation in (15).



Coronal Place Assimilation (CPA) spreads [PLACE] from a vowel to a following lateral resulting in [l]. Recall that the anterior coronals [t d n] have no underlying place features; therefore, these consonants are transparent to CPA. Later in the derivation [t d n] receive place features via Coronal Default (4); however, due to the No Crossing Constraint (Goldsmith 1979; Archangeli & Pulleyblank 1994), Coronal Default cannot apply when underspecified sounds are situated in the context /...V<sub>FRONT</sub>Cl.../, as in (14, 15). In such cases, the lines of association for the new place features would cross the line of association for the shared [PLACE] feature. Hence, these 'stranded,' placeless segments undergo the linking rule in (16).

(16) Coronal Linking [ROOT] [ROOT] [ROOT] [PLACE] [CORONAL]

Coronal Linking associates an underspecified segment with a shared place node that has a [CORONAL] daughter feature. Observe that the resulting structure does not violate the No Crossing Constraint.

I return now to the distribution of [1]. The coronal lateral can also occur after certain consonants, as illustrated by the examples in (17a–c).

- (17) [1] occurs after dorsal or labial obstruents
  - a. Word initially (Tschinkel 1908:140–141)

UR	PR	Gloss
/pLiətn/	[pliətn]	'to bleed'
/vLeask/	[vleask]	'a soft blow'
/3Liəsə/	[ʒliəsə]	'clasp'
/kLaybm/	[klaybm]	'to gather'
/gLittsn/	[glittsn]	'to sparkle'
/k <sup>h</sup> Lingələ/	[k <sup>h</sup> lingələ]	'ball (of yarn)'

b. Word internally after labial consonants (Tschinkel 1908:143–144)

/i:bL/	[iːbl]	'evil'
/3iffL/	[ʒiffl]	'to scoot'
/mymmL/	[mymml]	'to mutter'

c. Word internally after  $\left[\int 3 \text{ k g r}\right]$  (Tschinkel 1908:142–143)

/taʃLe/	[ta∫le]	'small pocket'
/ty:3L/	[ty:31]	'to hit'
/pykL/	[pykl]	'hunch'
/he:gL/	[heːgl]	'neck'
/baːrLt/	[baːrlt]	'world'
/pe:rLe/	[peːrle]	'small berry
/haːʒL/	[haːʒl]	'to glide'
/hy:3L/	[hy:ʒl]	'Chur' city in Switzerland

The words in (17a) show /L/ as the second member of a word initial consonant cluster. Observe that the quality of the following vowel is irrelevant; however, the initial consonant must be a labial or dorsal. In (17b), /L/ occurs word internally after a labial consonant, and in (17c), the lateral follows a dorsal consonant. In each of the data sets (17a–c), the lateral surfaces as [1]. Nei-

ther of the assimilations (CPA or DVA) can apply to the examples in (17), thus Lateral Default (11) assigns [DORSAL] to /L/. At this intermediate stage in the derivation, [ $\frac{1}{1}$ ] is adjacent to another [PERIPHERAL] consonant, which violates the OCP constraint in (18).

(18) OCP-[PERIPHERAL] \* [+consonantal] [+consonantal] | | | [PLACE] [PLACE] | | [PERIPHERAL] [PERIPHERAL]

OCP-[PERIPHERAL] states that two adjacent [PERIPHERAL] consonants constitute an ungrammatical sequence. In order to repair the illicit structure, a dissimilation takes place, as in (19).

(19) Peripheral Dissimilation
[+consonantal] [+consonantal]
[PLACE] [PLACE]
[PERIPHERAL] [PERIPHERAL]

Peripheral Dissimilation delinks the [PERIPHERAL] feature from the right-most of two consonants when both sounds bear [PERIPHERAL]. After the application of Peripheral Dissimilation, Coronal Default applies and the lateral surfaces as [1].

I summarize the rules presented in this section with the derivation in (20). The segments affected by a rule in a given stage of the derivation are enclosed in brackets '[].'

(20)

Gottschee German Derivation

UR	/ta:Lar/	/Lu:gøLə/	/pisLə/	/kry:L/	/i:bL/
D V Assim	taː[ł]ar				
C V Assim		Lu:gø:[l]ə		kry:[1]	
Dor Def		[ł]uːgøːlə	pis[ł]ə		i:b[ł]
P Dissim					i:b[1]
PR	[taːłar]	[łuːgølə]	[pisłə]	[kry:1]	[iːbl]

The derivation in (20) covers the various contexts for GG laterals. The first column shows word medial /L/ after a back vowel. Dorsal Vowel Assimilation applies resulting in [ł]. The second column shows that Coronal Vowel Assimilation applies when /L/ is situated after a front vowel. The initial lateral later undergoes Dorsal Default, which derives a surface [ł]. The third example shows a sequence /pisLə/. Coronal Vowel Assimilation is blocked by the intervening coronal fricative. Dorsal Default therefore derives [ł]. In the fourth column, underlying /L/ becomes specified as [CORONAL] because the sound is adjacent to a front vowel. Coronal Vowel Assimilation cannot apply to /i:bL/ in the fifth column because the preceding /b/ blocks the spreading of

[PLACE]. Thus, Dorsal Default applies, but the resulting sequence /...bł/ violates OCP-[PERIPHERAL], triggering Peripheral Dissimilation. The lateral thus surfaces as [1]. With regard to rule ordering, Dorsal Vowel Assimilation applies before Coronal Vowel Assimilation. The former is more specific (reference more structure) and must therefore be ordered first according to the Elsewhere Condition (Kiparsky 1973). Likewise, the Elsewhere Condition stipulates that Lateral Default apply after the assimilations. Peripheral Dissimilation necessarily occurs at the end of the derivation because it repairs any illicit sequences created by Lateral Default.

#### 4. Theoretical Considerations

## 4.1. Dissimilations as Structure Preserving

In the present analysis I posit a dissimilation that turns [ $\frac{1}{1}$ ] into [1]. It is noteworthy that GG does not have a phoneme /l/, and the dissimilation is therefore not structure preserving. According to Kiparsky (1985), a rule is structure preserving if the output is a phoneme of the language. If the output is not phonemic, then the rule is not structure preserving. This concept is important with respect to dissimilations because phoneticians such as Ohala (1993:255–256) and many phonologists (Kiparsky 1985:658; Hall 2008, 2009, among others) have argued that the output of a dissimilation must be structure preserving. These linguists might propose that the GG phoneme is /l/ and the dissimilation results in [ $\frac{1}{2}$ ]. The first problem with this analysis is that it is also non-structure preserving. Additionally, it is unclear how the hypothetical analysis can predict the distribution of [ $\frac{1}{2}$ ]. Specifically, how can one account for the fact that [ $\frac{1}{2}$ ] occurs word initially regardless of the following vowel? This seems like an impossible fact to derive from an underlying /l/. On the other hand, I have shown the distribution of [ $\frac{1}{2}$ ] to be completely predictable.

Some questions about the structure preserving status of dissimilations remain open: What are the constraints on dissimilations? Can a sound dissimilate to any other sound? For example, in a hypothetical language with the coronal stops /t t d d/, assume there is an OCP constraint against adjacent [+anterior] segments. Sequences of anterior stops such as /...td.../ should be expected to undergo a dissimilation given the analysis presented in this paper. If dissimilations are structure preserving, then the aforementioned sequence of anterior stops might be expected to surface as [...td...] or [...td...] since both combinations include phonemes of the language. On the other hand, if dissimilations are not structure preserving, it is unclear what the phonetic representation of /...td.../ might look like. Could /t/ be realized as a palatalized allophone [t<sup>i</sup>] or the palatal stop [c]? Is the dissimilation in any way predictable? Clearly this issue deserves attention, but it is beyond the scope of the present paper and a topic for future research.

## 4.2. Underspecification and [PERIPHERAL]

My analysis also presents an argument in favor of approaches to features that make use of the underspecification model advocated by Rice (1994). Consider first that some phonologists (McCarthy 1988; Sagey 1986; Steriade 1987) argue for autosegmental representations without a natural class [PERIPHERAL]. According to this view, there are natural classes of coronals, labials, and dorsals, but labials and dorsals cannot pattern together. It is unclear how an analysis without [PERIPHERAL] would be able to account for the dissimilation data. Why should both word initial labial and dorsal obstruents cause [1] to surface when one would otherwise predict [4]? It would be possible to write two separate rules – one that de-links [DORSAL] after labials and another that de-links [DORSAL] after dorsals. Although theoretically possible, such an ad-hoc analysis misses

the generalization that word initial labial and dorsal obstruents have the same effect on a following /l/. These obstruents behave as a natural class and this generalization is captured if both are specified as [PERIPHERAL].

#### 5. Conclusion

In this paper I have presented an account of GG /L/. I argued that the underlying segment is an underspecified archiphoneme /L/. On the surface there are two allophones [1] and [4], the former of which is [CORONAL] and the latter [DORSAL]. According to my analysis, the distribution of laterals is predictable after vowels. When the lateral follows a front vowel, [1] surfaces, whereas [4] is derived after back vowels. Strangely, [1] also occurs in word initial consonant clusters when the consonant is a [PERIPHERAL], an environment in which one would expect [4]. To account for these data I posited an OCP constraint militating against adjacent peripheral segments. This constraint triggers a dissimilation, resulting in the coronal lateral. My analysis crucially relies on coronal underspecification (Rice 1994, 1996) to account for the transparency of coronal and labial consonants with regard to the assimilation of vowel place features. Finally, my analysis provides evidence that dissimilations can be non-structure preserving.

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