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Dissimilation in Hispano-Romance Diminutive Suffixation

Claire Julia Lozano [1] **and Travis G. Bradley** [2,*]

[1] Department of Spanish and Portuguese, Macalester College, St. Paul, MN 55105, USA
[2] Department of Spanish and Portuguese, University of California, Davis, CA 95616, USA
* Correspondence: tgbradley@ucdavis.edu

Abstract: A highly productive derivational process, diminutive suffixation in Spanish (e.g., *gatito* ~ *gatiko/gatico* 'little/well-known/beloved/awful cat' < *gato* 'cat') has received much attention in the morphology–phonology interface literature. The present study contributes a novel comparative analysis of a dissimilatory alternation between diminutive suffix allomorphs *-ito/a* and *-ico/a (-iko/a)* across three Hispano-Romance varieties. In Judeo-Spanish, the voiceless dorsal stop [k] of default *-iko/a* dissimilates to coronal [t] after any dorsal segment [k, g, g^{w}, x, w] in the base-final syllable. In Colombian Spanish, the voiceless coronal stop [t] of default *-ito/a* dissimilates to dorsal [k] after only an identical [t] in the base-final syllable. By contrast, Castilian Spanish *-ito/a* does not dissimilate, thereby providing a baseline for comparison. All three varieties allow for optional iteration of the suffix, which conveys greater smallness or endearment than the simple diminutive, e.g., Castilian Spanish *gatitito* 'little/beloved kitty', without dissimilation. Iterated diminutives in Colombian Spanish show two patterns of dissimilation, which have not been fully acknowledged in the previous literature. For example, either (i) [it] and [ik] alternate to avoid adjacent identical syllable onsets, e.g., *gat*[ikitíko], or (ii) [it] is iterated until alternating with word-final [ik], e.g., *gat*[ititíko]. In all three Hispano-Romance varieties, base-final unstressed vowels are deleted before a vowel-initial diminutive suffix, followed by unstressed *-o/a*, and stress (indicated by an acute accent) is shifted rightward onto the penultimate syllable of the diminutive word. Vowel deletion and stress shift apply recursively in iterated diminutives. We propose an Optimality Theory analysis of these alternations in terms of suffix allomorphy that is phonologically conditioned by consonantal place dissimilation. The analysis is formalized as an interaction among constraints that enforce prosodic unmarkedness, output–output correspondence, allomorph preference, and similarity avoidance. We consider theoretical alternatives and compare our analysis to other recent proposals.

Keywords: dissimilation; diminutive suffixation; Judeo-Spanish; Colombian Spanish; Castilian Spanish; optimality theory; constraint conjunction; obligatory contour principle

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1. Introduction

Diminutive suffixation is a well-known process of Hispano-Romance derivational morphology that can semantically express smallness, familiarity, affection, or even disdain. Several different diminutive suffixes are attested in contemporary Spanish varieties, e.g., *-ito/a*, *-(e)cito/a*, *-illo/a*, *-(e)cillo/a*, *-(z)uelo/a*, *-(e)cico/a*, *-uco/a*, and *-ín/ina*. The most common is *-ito/a*, which also has a longer, morpho-phonologically conditioned allomorph *-(e)cito/a.* In Judeo-Spanish, the preferred diminutive suffix *-iko/a* alternates with both *-ito/a* and a longer allomorph *-eziko/a.*[1] Diminutive suffixation has been described and analyzed in contemporary Hispano-Romance linguistics (Jaeggli 1980; Nieuwenhuis 1985; P. Prieto 1992; Crowhurst 1992; Harris 1994; Ambadiang 1996; Ohannesian 1996, 2020; Ohannesian and Pons 2009; Lázaro Mora 1999; Miranda 1999; Eguren 2001; Bunis 2003; Colina 2003, 2009; V. M. Prieto 2005; Bermúdez-Otero 2006, 2013; Zacarías 2006; Bradley and Smith 2011; Smith 2011; Ambadiang and Bergareche 2012; Normann-Vigil 2012; Fábregas 2013; Vadella 2017; Camus Bergareche 2018; Tarazona 2021). In simple diminutives, the suffix [it]/[ik] attaches

to a base word, e.g., *gatito ~ gatiko/gatico* 'little/well-known/beloved/awful cat' < *gato* 'cat'. The highly productive nature of diminutivization can even give rise to what Nieuwenhuis (1985, pp. 73–74) calls an 'intensified diminutive,' which conveys even greater smallness or endearment and is generally expressed in Romance by the iteration, or repetition, of the suffix, e.g., *gatitito ~ gatikito/gatiquito ~ gatitico* 'little/beloved kitty' < *gatito ~ gatiko/gatico* 'kitty' < *gato* 'cat'. We henceforth refer to such forms as *iterated diminutives.*

The present article is about a dissimilatory alternation between diminutive suffix allomorphs [ik] and [it], as observed in Judeo-Spanish (JS) and Colombian Spanish (CoS) and compared to non-alternating [it] in Castilian Spanish (CaS). Table 1 illustrates the main patterns.[2] We will argue that dissimilation in shorter allomorphs avoids the repetition of sufficiently similar onset-initial segments across two adjacent syllables. Each Hispano-Romance variety also includes a longer allomorph, as attested in examples such as JS *paneziko* and CoS/CaS *panecito*, both derived from *pan* 'bread', as well as CoS/CaS *pintorcito* < *pintor* 'painter'. The longer allomorphs do not participate in the dissimilation alternation. In CoS, *gatico* is the preferred diminutive of *gato* 'cat', even though hypothetical **gatecito* would have equally avoided the repetition of onset-initial [t] in **gatito.* However, the longer allomorphs are important to mention here because they provide a clue as to which of the two shorter allomorphs is the default suffix, which appears to the left in each row of Table 1. For example, default *-iko/a* matches *-eziko/a* in JS, and default *-ito/a* matches *-(e)cito/a* in CoS (and in CaS, which altogether lacks an [ik] allomorph).[3]

Table 1. Diminutive suffix allomorphy across three Hispano-Romance varieties. Orthographic forms include an unstressed terminal element *-o* or *-a.* Phonetic forms of the diminutive allomorph appear beneath.

Variety	**Shorter Allomorphs**				**Longer Allmorphs**
Judeo-Spanish (JS)	*-iko/a*	~	*-ito/a*	~	*-eziko/a*
	[ik]		[it]		[ezik]
Colombian Spanish (CoS)	*-ito/a*	~	*-ico/a*	~	*-(e)cito/a*
	[it]		[ik]		[(e)sit]
Castilian Spanish (CaS)	*-ito/a*		~		*-(e)cito/a*
	[it]				[(e)θit]

This article has two main goals, one empirical and one theoretical. The empirical goal is to give a thorough description of the [ik]~[it] alternation in JS and CoS diminutives. We identify novel generalizations about the patterning of iterated diminutives in CoS. We show that diminutives in JS, CoS, and CaS also involve processes of base-final unstressed vowel deletion and rightward stress shift, which apply recursively in iterated diminutives. Our theoretical goal is to develop a comprehensive phonological analysis of simple and iterated diminutivization within the constraint-based framework of Optimality Theory.

This article is structured as follows. In Section 2, we present data from JS, CoS, and CaS to motivate generalizations about the morpho-phonological domains of alternation between the diminutive suffix allomorphs [ik] and [it]. In Section 3, we propose a formal model of simple and iterated diminutives in classic, monostratal Optimality Theory (OT; Prince and Smolensky 1993/2004; McCarthy and Prince 1999), which assumes that inputs are mapped to optimal outputs by a phonological grammar consisting of a single constraint ranking. In Section 4, we analyze the [ik] ~ [it] alternation in terms of suffix allomorphy that is phonologically conditioned by consonantal place dissimilation, formalized as an interaction among constraints that enforce prosodic unmarkedness, output–output correspondence, allomorph preference, and similarity avoidance. Section 5 compares our analysis with theoretical alternatives. Section 6 summarizes and concludes.

2. Dissimilation in Hispano-Romance Diminutive Suffixation

2.1. JS

Bunis (2003) provides, to our knowledge, the most comprehensive description of JS diminutives to date. Such forms were amply attested in texts since the early 18th century and involve "lexemes derived from all source components, including Ottoman Turkish and other local languages, Hebrew and Aramaic, and, from the second half of the 19th century, Western European prestige languages such as Italian, French and German" (p. 205). In earlier Ottoman Jewish-letter texts from the 16th century, "the use of *-ito* is always governed by phonological constraints: it is *only* attracted to stems exhibiting the velars *k* or *g*, especially word-medially, thus appearing to effect a kind of dissimilation" (p. 198).

In modern JS simple diminutives, [ik] appears after syllable-initial labials [p, b, v, m] (1a), coronals [t, d, z, n, ɾ, r, l] (1b), and (pre)palatals [ʧ, ʃ, ʒ, j] (1c). To simplify the presentation, we give only a few representative examples for each phonological context, which is defined here in terms of the base-final syllable. A period denotes a syllable boundary, braces enclose possible syllable-initial segments, and an underscore shows where the diminutive suffix attaches, assuming deletion of the base-final unstressed vowel, or terminal element. Page numbers indicate the location of each example cited in Bunis's (2003) study, including the diminutive, base, and English gloss. See Appendix A for an exhaustive list of JS simple diminutives extracted from Bunis (2003).

(1)		Context	Diminutive	Base		
	a.	.{p, b, v, m}_	*kapika*	*kapa*	'cap'	213
			gulubika	*guluba*	'pigeon'	214
			manseviko	*mansevo*	'young man'	214
			ramika	*rama*	'branch'	213
	b.	.{t, d, z, n, ɾ, r, l}_	*kartika*	*karta*	'card'	213
			adjuntadiku	*adjuntadu*	'united'	214
			ermoziko	*ermozo*	'beautiful'	214
			kadenika	*kadena*	'chain'	214
			orika	*ora*	'hour'	213
			karriko	*karro*	'wagon'	213
			Solika	*Sol*	(name)	207
	c.	.{ʧ, ʃ, ʒ, j}_	*biskochiko*	*biskocho*	'biscuit'	214
			kashika	*kasha*	'box, drawer'	213
			navajika	*navaja*	'razor'	214
			bo(y)iko	*boyo*	'bun'	213

On the other hand, in modern JS simple diminutives, [it] appears after any dorsal, not only [k] (2a) and [ɡ, ɡ^{w}] (2b) but also [x] (2c) and [w] (2d):

(2)		Context	Diminutive	Base		
	a.	.k_	*freskito*	*fresko*	'fresh'	211
	b.	.{ɡ, ɡ^{w}}_	*bragita*	*braga*	'trousers'	210
			agwita	*agwa*	'water'	211
	c.	.x_	*blahitu*	*blahu*	'Christian'	211
	d.	.w_	*Elyawito*	*Elyaw*	(name)	211

Besides being reflected in the longer allomorph *-eziko/a* in Table 1, [ik] also has a wider surface distribution in simple diminutives (1) and can, therefore, be considered the default allomorph of the shorter suffix in JS. By contrast, the distribution of [it] is restricted to the specific context of a preceding dorsal onset (2).

Regarding iterated diminutives, Bunis (2003) writes that in

> "endings such as *-ikito (< -iko + -ito)* and *-etiko/-itiko (< -ito + -iko)*, the first element probably constituted the earlier suffix, originally employed with the stem in a preceding stage of the language; the second suffix was perhaps added after the earlier diminutive had lost its diminutive force, or had acquired a specialized sense, no longer functioning as a mere diminutive of the stem, or to express a higher degree of diminution" (p. 228)

Examples of JS iterated evaluative (e.g., diminutive or augmentative) suffixes are given in (3), along with the number of such suffixes that appear in the longest form. The examples in (3a) show that adjacent identical syllable onsets are avoided, giving rise to recursive dissimilation between diminutive suffix allomorphs [it] and [ik]. In *saltikón* (3b), *-iko* combines with *salto*, to which the second, augmentative suffix *-ón* then attaches. Although not technically an iterated diminutive, *saltikón* '(big little) jump' shows that evaluative suffixes are productively iterated in JS:

(3)	# of suffixes	Diminutives		
a.	2	*chikitiko* < *chikito* < *chiko*	'small'	228
		pokitiko < *pokito* < *poko*	'tiny bit'	228
b.	2	*saltikón* < *saltiko* < *salto*	'jump'	229

The pair in (3a) are the only concrete examples of iterated diminutives cited in Bunis's (2003) description of modern Jewish-letter texts. In general, iterated diminutives in Hispano-Romance seem to be much more common in the spoken language, where they serve many pragmatic purposes across a range of different interactional contexts, all of which deserve further detailed study. Corpora that are limited to more formal, written registers of JS may fail to capture the true extent of iterated diminutives in actual speech. Their high frequency in the spoken language of contemporary non-Sephardic Spanish suggests that iterated diminutives were likely just as productive in spoken JS. For discussion on this point, we give thanks to Aldina Quintana (personal communication).

2.2. CoS

According to Lipski (1999, p. 19), the Spanish diminutive suffix *-ico/a* is attested in Colombia, Costa Rica, Venezuela, Cuba, and regions of eastern and southern Spain (see also Kany 1960, p. 156), and its use presents a striking parallel with the JS diminutive suffix *-iko/a.* Historically, Peninsular Spanish *-ico/a* derives from Proto-Romance *-iccu/a.* Although its origins prior to Vulgar Latin are not known for certain, this suffix is associated primarily, although not exclusively, with the regions of Aragon and Murcia in eastern Spain (Alvar and Pottier 1983, pp. 367–8; Nieuwenhuis 1985, p. 186–7). According to previous theories, its possible origins may be Iberian, Celtic, Basque, African, Roman, or German (González Ollé 1962, pp. 319–26). Nebrija's (1492) *Gramática Castellana* gives evidence that *-ico/a* was one of the three most popular diminutive suffixes in the 15th century, along with *-illo/a* and *-ito/a.* In the Golden Age literature, *-ico/a* enjoyed widespread use and prestige. Even though it is no longer used in normative CaS, *-ico/a* is still attested in present-day Navarra, Aragon, and Murcia, as well as in eastern regions of Andalusia in southern Spain (Penny 2014, p. 319).

The presence of *-ico/a* in 15th-century Spain aligns historically with the expulsion of the Sephardic Jews from the Iberian Peninsula starting in 1492. As with other regional linguistic features, such as syllable-final /s/ aspiration, *yeísmo, seseo*, etc., it is possible to trace the existence of *-ico/a* diminutives in the American colonies back to settlers from the eastern and southern Iberian Peninsula, many of whom were Sephardic Jews. Lipski (1999) draws an explicit historical connection between Latin American Spanish *-ico/a* and JS *-iko/a*, arguing that the presence of the same suffix in Colombia and Cuba is unlikely to be a "casual coincidence" (p. 31). He proposes that the contributions from JS and eastern and southern Peninsular Spanish represent one of the most notable "missing links" (p. 32) in the evolution of Latin American Spanish varieties. In particular, Colombia is the "apparent epicenter" (p. 19) of South American *-ico/a*, and in Costa Rica, the extensive use of *-ico/a* in iterated diminutives like *hermanitico* < *hermano* 'brother' has given rise to the hypocoristic "Ticos" that is commonly used to refer to Costa Ricans. Lipski claims that in the Peninsular Spanish varieties that use *-ico/a*, this suffix can be added to any nominal root, regardless of the configuration of final consonants and vowels, e.g., *angelico* < *ángel* 'angel', *casica* < *casa* 'house', *gordico* < *gordo* 'fat'. However, the Latin American varieties have a dissimilatory phonotactic restriction whereby *-ico/a* can attach only to base words whose final syllable

begins with a voiceless coronal stop [t], e.g., *momentico* < *momento* 'moment', *ratico* < *rato* 'a while', *maestrico/a* < *maestro/a* 'teacher'.

Evidence for such a restriction comes from Fontanella's (1962) foundational descriptive study of CoS diminutives, drawn from a corpus of over 200 such forms that she observed during informal conversations over a two-month period around the city of Bogotá, Colombia. In CoS simple diminutives as used in the spoken language, [it] appears after labials [p, b, m] (4a), coronals [d, s, n, ɾ, l] (4b), palatals [ɲ, ʝ] (4c), and dorsals [k, ɡ, x] (4d). We give representative examples below, but see (39) and (40) of Appendix B for an exhaustive list of simple diminutives extracted from Fontanella (1962).

(4)		Context	Diminutive	Base		
	a.	.{p, b, m}_	*papito*	*papi*	'daddy'	560
			Albita	*Alba*	(name)	560
			climita	*clima*	'climate'	567
	b.	.{d, s, n, ɾ, l}_	*caldito*	*caldo*	'soup, broth'	563
			bracito	*brazo*	'arm'	563
			hermanito	*hermano*	'brother'	563
			ahorita	*ahora*	'now'	557
			arbolito	*árbol*	'tree'	566
	c.	.{ɲ, ʝ}_	*niñito*	*niño*	'child'	557
			Estrellita	*Estrella*	(name)	560
	d.	.{k, ɡ, x}_	*cerquita*	*cerca*	'near'	557, 569
			alguito	*algo*	'something'	568, 570
			cajita	*caja*	'box'	570

However, [ik] appears after the voiceless coronal stop [t] (5):

(5)	Context	Diminutive	Base		
	.t_	*abiertico*	*abierto*	'open'	566
		galletica	*galleta*	'cookie'	557, 566
		tantica	*tanta*	'so much'	566

Besides being reflected in the longer allomorph *-(e)cito/a* in Table 1, [it] also has a wider surface distribution in simple diminutives (4) and can, therefore, be considered the default allomorph of the shorter suffix in CoS. By contrast, the distribution of [ik] is restricted to the specific context of a preceding onset [t] (5).

However, there is some more recent empirical evidence that dissimilation in CoS simple diminutives is not an obligatory process but instead displays variation. Data from a search of the *Corpus del Español: Web/Dialects* (Davies 2016–) carried out in March 2024, limited to Colombia and based on the wildcard string **tit?*, are given in (6). Although these representative forms are not the only examples we found, they serve to show that [it] can appear after a voiceless coronal stop [t], where Fontanella's description of the Bogotá variety as spoken in 1962 would lead us to expect [ik]. Further research is necessary to determine the sources (diachronic, geographic, social, stylistic, etc.) and full extent of such variation in present-day CoS:

(6)	Context	Diminutive	Base	
	.t_	*calentito/a*	*caliente*	'hot'
		gatito/a	*gato/a*	'cat'
		momentito	*momento*	'moment'

CoS iterated diminutives show three distinct patterns. In the first pattern, [it] iterates but does not alternate with [ik], i.e., there is no dissimilation. A search of the *Corpus del Español*, limited to Colombia and based on the string **itit?*, returned examples such as those in (7), which mirror the simple diminutives presented in (6):

(7)		# of suffixes	Diminutive	Base	
	a.	2	*ahoritita*	*ahora*	'now'
			chiquitito/a	*chico/a*	'small'
			poquitito	*poco*	'few'
			puritito/a	*puro/a*	'pure'
			queditito	*quedo*	'soft'
			toditito/a	*todo/a*	'all'
	b.	3	*puntititita*	*punta*	'tip'

In the second pattern, [it] ~ [ik] alternate to avoid identical onsets in adjacent syllables, as the examples from Fontanella (1962) show in (8) (see (41) of Appendix B for an exhaustive list). This pattern is identical to the JS iterated diminutives in (3a):

(8)		# of suffixes	Diminutive	Base		
	a.	2	*arribitica*	*arriba*	'above'	561
			poquitico	*poco*	'few'	561
			toditica	*toda*	'all'	568
	b.	3	*cortiquitica*	*corta*	'short'	558, 561, 568
	c.	4	*chiquitiquitico*	*chico*	'small'	558
			toditiquitica	*toda*	'all'	568
	d.	5	*cortiquitiquitico*	*corto*	'short'	558

In the third pattern, [it] is iterated until alternating with word-final [ik] (9) and (10a). However, [ik] never iterates without alternating (10b). A search of the *Corpus del Español* based on **ititic?* returned the CoS examples in (9), while those in (10) come from an article published in 2018 by Ana María Díaz Collazos in the *Gaceta Dominical* of the online newspaper *El País*, based in Cali, Colombia.[4]

(9)		# of suffixes	Diminutive	Base	
	a.	3	*chiquititica*	*chica*	'small'
			enteritica	*entera*	'entire'
			livianitica	*liviana*	'light'
			quebraditica	*quebrada*	'uneven, rough'
			sequitica	*seca*	'dry'
	b.	7	*igualitititititica*	*igual*	'equal'
			poquititititico	*poco*	'few'

(10)		# of suffixes	Diminutive	Base	
	a.	6	*ahoritititititica*	*ahora*	'now'
	b.	6	**ahoritiquiquiquiquica*		

The difference between (8) and (9)–(10) has gone unnoticed in the previous literature. We provide the first theoretical account of these patterns in Section 4.

2.3. CaS

CaS *-ito/a* does not dissimilate, thereby providing a baseline against which to compare the dissimilatory patterns of JS and CoS. To facilitate the comparison, we follow the same presentational format as in previous sections. In CaS, the diminutive suffix [it] appears to the total exclusion of [ik], both in simple (11) and iterated (12) diminutives. These data come from a *Corpus del Español* search limited to Spain based on the strings **pit?*, **bit?*, **vit?*, **fit?*, **mit?* (11a), **tit?*, **dit?*, **cit?*, **sit?*, **nit?*, **rit?*, **rrit?*, **lit?* (11b), **chit?*, **ñit?*, **llit?*, **yit?* (11c), **quit?*, **guit?*, **güit?*, **git?*, **jit?* (11d) and for iterated diminutives, **itit?* (12a) and **ititit?* (12b,c).

(11)		Context	Diminutive	Base	
	a.	.{p, b, f, m}_	*principito*	*príncipe*	‘prince’
			bebito	*bebé*	‘baby’[5]
			vivito	*vivo*	‘alive’
			triunfito	*triunfo*	‘triumph’
			mismito/-a	*mismo/-a*	‘same’
	b.	.{t, d, θ, s, n ,ɾ, r, l}_	*ratito*	*rato*	‘a while’
			cucharadita	*cucharada*	‘tablespoon’
			trocito	*trozo*	‘slice’
			besito	*beso*	‘kiss’
			granito	*grano*	‘grain, seed’
			señorita	*señora*	‘lady’
			perrito	*perro*	‘dog’
			arbolito	*árbol*	‘tree’
	c.	.{ʧ, ɲ, ʎ, j}_	*bichito*	*bicho*	‘bug, creature’
			pequeñito/-a	*pequeño/-a*	‘small’
			rollito	*rollo*	‘roll, reel, a drag’
			joyita	*joya*	‘jewel’
	d.	.{k, g, g^w, x}_	*poquito/-a*	*poco/-a*	‘few
			barriguita	*barriga*	‘belly’
			agüita	*agua*	‘water’
			Jorgito	*Jorge*	(name)
			cajita	*caja*	‘box’

(12)		# of suffixes	Diminutive	Base	
	a.	2	*chiquitito/-a*	*chico/-a*	‘small’
			poquitito/-a	*poco/-a*	‘few’
			puritito/-a	*puro/-a*	‘pure’
	b.	3	*ahorititita*	*ahora*	‘now’
			perrititito	*perro*	‘dog’
			todititito/-a	*todo/-a*	‘all’
	c.	5	*chiquitititititito/-a*	*chico/-a*	‘small’

2.4. Generalizations to Be Accounted for

The data presented in the previous sections motivate several morpho-phonological generalizations about diminutive suffixation in Hispano-Romance and, in particular, the dissimilatory alternation between allomorphs [ik] and [it] in JS and CoS. The generalizations in (13) directly inform the analysis to be developed in the rest of this article.

(13) a. JS and CoS differ in terms of whether [ik] or [it] is considered the unmarked (default) allomorph of the diminutive suffix (DIM), while [ik] is absent from CaS. (See Table 1).

b. The [k] of JS DIM [ik] dissimilates to [t] after any syllable-initial dorsal consonant (2) and (3a), whereas the [t] of CoS DIM [it] dissimilates to [k] after only an identical syllable-initial [t] (5) and (8)–(10).
DIM [it]/[ik] can be optionally iterated, showing three patterns:

c. (i) only [it] iterates, as in CoS (6) and (7), similarly to CaS (12).
(ii) [it]~[ik] alternate, as in JS (3a) and CoS (5) and (8).
(iii) [it] iterates until alternating with word-final [ik], as in CoS (9) and (10a). However, [ik] never iterates without alternating (10b).

d. Unstressed terminal element (TE) suffix vowels of the base are deleted before vowel-initial DIM [it] and [ik], and the stress of the base is shifted rightward onto the penultimate syllable of the diminutive, which must end in either TE [o] or [a].

3. Setting the Stage: Base-Final Vowel Deletion and Rightward Stress Shift

The constraint-based framework of OT (Prince and Smolensky 1993/2004; McCarthy and Prince 1999) makes possible an explicit, formal account of the generalizations in (13). Before addressing allomorphy and dissimilation (13a–c), it will help to first explain base-

final vowel deletion and rightward stress shift (13d), as both phenomena are common to all three Hispano-Romance varieties. For simplicity, we use the non-dissimilating, baseline variety CaS to model the two patterns. Following work on transderivational similarity (Benua 1997; Steriade 1999, 2000; Crosswhite 1998; Kager 1999; Ohannesian and Pons 2009; among others), we assume a model of diminutive formation that evaluates correspondence relations between the output forms of morphologically related words, in this case [base+DIM+TE] ↔ [diminutive]. As shown in Figure 1, the derivation of iterated diminutives is a recursive procedure of attaching DIM+TE to the latest base output. The procedure is terminated at the speaker's will. As the CaS simple (a) and iterated (b) diminutives in Table 2 make clear, base-final TE vowels delete before the vowel-initial DIM, and the stress foot (Σ) of the prosodic word (ω) of the base shifts rightward in the ω of the diminutive.

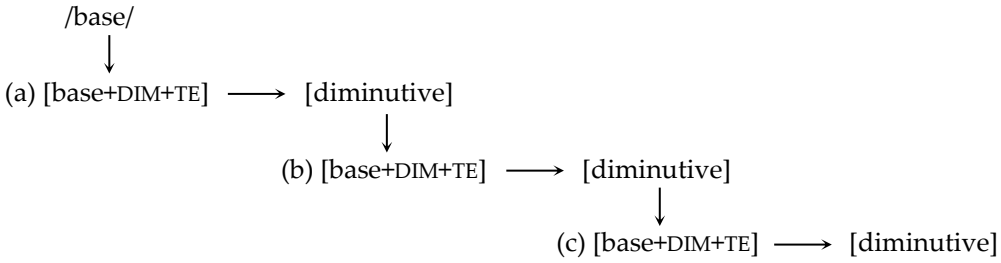

Figure 1. Output–output correspondence between [base+DIM+TE] and [diminutive] forms.

Table 2. CaS simple diminutive *besito* < *beso* 'kiss' (a) and iterated diminutive *ahoritita* < *ahorita* < *ahora* 'now' (b).

	[Base+DIM+TE]		**[Diminutive]**	
(a)	$((\text{bé.so})_{\Sigma})_{\omega}$+it+o	→	$(\text{be}(\text{.sí.to})_{\Sigma})_{\omega}$	
(b)	$(\text{a}(\text{ó.ɾa})_{\Sigma})_{\omega}$+it+a	→	$(\text{a.o}(\text{.ɾí.ta})_{\Sigma})_{\omega}$	→
	$(\text{a.o}(\text{.ɾí.ta})_{\Sigma})_{\omega}$+it+a	→	$(\text{a.o.ɾi}(\text{.tí.ta})_{\Sigma})_{\omega}$	

Attaching a vowel-initial DIM to a vowel-final base creates a hiatus, or sequence of two adjacent vowels that belong to separate syllables. A hiatus is a cross-linguistically marked structure that languages tend to avoid. A common repair strategy is to delete the first vowel. This strategy can be formalized as an interaction between a markedness constraint against a hiatus (14a) and an anti-deletion correspondence constraint (14b). (For longer constraint names, an abbreviated title appears after the hyphen, '—', here and below.) Furthermore, a positional anti-deletion correspondence constraint (14c) prohibits deletion of the second vowel in a hiatus created by DIM suffixation (see Casali 1997, 2011).

(14) a. *HIATUS
Assign a violation for every sequence of adjacent vowels that belong to separate syllables.
BASEDIMINUTIVE-MAXIMALITY—BD-MAX
b. Assign a violation for every segment in [base+DIM+TE] that has no correspondent in the diminutive. ("The diminutive contains a maximal expression of the segments of [base+DIM+TE].")
BASEDIMINUTIVE-MAXIMALITY(V2)—BD-MAX(V2)
c. Assign a violation for every postvocalic vowel in [base+DIM+TE] that has no correspondent in the diminutive. ("The diminutive contains a maximal expression of the postvocalic vowels of [base+DIM+TE]".)

We argue that *HIATUS (14a) crucially outranks BD-MAX (14b), while the relative ranking of BD-MAX(V2) (14c) is indeterminate. Tableau (15) gives the analysis of CaS *besito* < *beso* (Table 2a).[6] Corresponding segments between the base output and the diminutive candidates now include identical numerical subscripts. Hiatus in [base+DIM+TE], as reflected

in [o_4.$í_5$] (15a), is repaired by deleting the base-final TE vowel [o_4] (15b). Because deleting the DIM-initial [i_5] will always violate both BD-MAX(V2) and BD-MAX, no matter how the two correspondence constraints are ranked, candidate (15c) is harmonically bounded by, and will always lose to, candidate (15b). Ramsammy (2017, p. 72) proposes a similar analysis of stem-final vowel deletion before the vowel-initial DIM /et/ in Italian *libretto* < *libro* 'book', although his account assumes a Stratal OT model that distinguishes among stem-, word-, and phrase-level constraint rankings, which we do not adopt here.

(15)		$((b_1é_2.s_3o_4)_\Sigma)_\omega$+$i_5t_6$+$o_7$	*HIATUS	BD-MAX	BD-MAX(V_2)
	a.	$(b_1e_2.s_3o_4(.í_5.t_6o_7)_\Sigma)_\omega$	*!		
☞	b.	$(b_1e_2(.s_3í_5.t_6o_7)_\Sigma)_\omega$		*	
	c.	$(b_1e_2(.s_3ó_4.t_6o_7)_\Sigma)_\omega$		*	*!

A reviewer asks why the DIM is assumed to attach to the inflected base instead of the stem itself, which would obviate the need for *HIATUS to induce base-final vowel deletion. We first answer a related question: why is the DIM assumed to include its own TE, which must be either [o] or [a]? CaS examples like *coch(ec)ito* < *coche* 'car' (masc.) and *noch(ec)ita* < *noche* 'night' (fem.), cited by Bermúdez-Otero (2006, p. 303), show that the DIM cannot be followed by the TE [e] but, nevertheless, must be followed by some TE, as **cochite/cochecite*, **nochite/nochecite*, **cochit/cochecit*, and **nochit/nochecit* are all ungrammatical. Therefore, instead of attaching between the stem and the base-final TE, the DIM appears with its own TE, [o] for masculine or [a] for feminine nominals. Now, back to the reviewer's question. According to the output–output model that we adopt in Figure 1, Table 2, and tableau (15), the base word $((b_1é_2.s_3o_4)_\Sigma)_\omega$ is a fully formed output that already includes a TE vowel. If the suffix sequence DIM+TE [i_5t_6+o_7] were to attach directly to the right edge of the stem after [s_3], then the fate of the base-final TE [o_4] would still need to be explained in any event. An explicit account of the mapping of [o_4] must show how high-ranking constraints eliminate additional output candidates that are not shown in (15). For example, inserting [i_5t_6+o_7] between stem-final [s_3] and TE [o_4] of the base yields a candidate $(b_1e_2.s_3i_5(.t_6ó_7.o_4)_\Sigma)_\omega$, which fatally violates *HIATUS. Fusing the TE [o_4] of the base together with the identical TE [o_7] of the DIM into the surface vowel [$o_{4,7}$] violates a high-ranking base-diminutive correspondence constraint, BD-UNIFORMITY, not shown here, which penalizes the coalescence of two segments into one. Low-ranking BD-MAX ensures deletion of the TE as the optimal strategy. Ultimately, the question of where to attach DIM+TE is part of a larger debate on the status of stem-final vowel deletion in Spanish phonology, which we cannot attempt to resolve in this study. For more detailed discussion and analysis of stem-final vowel deletion from a Stratal OT perspective, see Bermúdez-Otero (2006, 2007, 2013).

We propose a novel formal explanation of rightward stress shift in diminutivization, which operates recursively in iterated diminutives. We argue that rightward stress shift in diminutive words emerges from an interaction of constraints on prosodic feet and stress, as defined in (16) (McCarthy 2003, p. 109; Alber and Arndt-Lappe 2022, pp. 17–19). McCarthy (2003, pp. 104–10) criticizes previous OT approaches to stress patterns based on gradient ALIGN constraints because they make pathological cross-linguistic predictions. We adopt his categorically defined constraints (16a,b) (see the constraint definitions in McCarthy's example (33)). Thus, (16c) is violated whenever the stressed vowel of the base is unstressed in the corresponding diminutive word. In particular, our ranking of (16a) above (16b,c) ensures that the Σ coincides with the right edge of the ω. Together, (16d,e) require the stress foot (Σ) to consist of either a single bimoraic syllable or of two monomoraic syllables, the first of which is the most prominent.

(16) a. PARSEσ$_F$
Assign a violation for every unfooted syllable in ω-final position.
b. PARSEσ$_I$
Assign a violation for every unfooted syllable in ω-initial position.
BASEDIMINUTIVE-MAXIMALITY(stress)—BD-MAX(str)
c. Assign a violation for every stressed vowel in the base whose correspondent in the diminutive is unstressed. ("The diminutive contains a maximal expression of the stressed vowel of the base.").
d. FOOTBINARITY—FTBIN
Assign a violation for every Σ that is not binary at the mora or syllable level.
e. TROCHEE—TROCH
Assign a violation for every Σ whose head syllable is not initial.

We argue that PARSEσ$_F$ (16a) outranks both PARSEσ$_I$ and BD-MAX(str) (16b,c), while the relative ranking of FTBIN and TROCH (16d,e) is indeterminate. Tableau (17) continues the analysis of CaS *besito* < *beso* from tableau (15) above, this time focusing on the optimization of foot structure. The unfooted ω-final syllable in [base+DIM+TE] is repaired by aligning the right edge of the ω with the right edge of the Σ, which can be neither monosyllabic (c) nor iambic (d) but instead, must be both disyllabic and trochaic (b). The right-aligned, trochaic stress foot in (b) is optimal because it violates only PARSEσ$_I$ and BD-MAX(str).

(17)		((b$_1$é$_2$.s$_3$o$_4$)$_\Sigma$)$_\omega$+i$_5$t$_6$+o$_7$	PARSEσ$_F$	PARSEσ$_I$	BD-MAX(str)	FTBIN	TROCH
	a.	((b$_1$é$_2$.s$_3$i$_5$)$_\Sigma$.t$_6$o$_7$)$_\omega$	*!				
☞	b.	(b$_1$e$_2$(.s$_3$í$_5$.t$_6$o$_7$)$_\Sigma$)$_\omega$		*	*		
	c.	(b$_1$e$_2$.s$_3$i$_5$(.t$_6$ó$_7$)$_\Sigma$)$_\omega$		*	*	*!	
	d.	(b$_1$e$_2$(.s$_3$i$_5$.t$_6$ó$_7$)$_\Sigma$)$_\omega$		*	*		*!

Tableau (18) gives the analysis of the CaS iterated diminutive *ahoritita* < *ahorita* < *ahora* (Table 2b). To avoid cluttering the tableaux, we henceforth omit numerical subscripts from individual segments. The top half of the tableau shows the optimal mapping between (a(ó.ɾa)$_\Sigma$)$_\omega$+it+a and the corresponding simple diminutive (18b). The bottom half of the tableau shows the optimal mapping between (a.o(.ɾí.ta)$_\Sigma$)$_\omega$+it+a and the corresponding iterated diminutive (18f). In both evaluations, unfooted ω-final syllables in [base+DIM+TE] are repaired by aligning the right edge of the ω with the right edge of the Σ, which can be neither monosyllabic (c,g) nor iambic (d,h) but instead, must be both disyllabic and trochaic (b,f).

(18)		(a(ó.ɾa)$_\Sigma$)$_\omega$+it+a	PARSEσ$_F$	PARSEσ$_I$	BD-MAX(str)	FTBIN	TROCH
	a.	(a(.ó.ɾi)$_\Sigma$.ta)$_\omega$	*!	*			
☞	b.	(a.o(.ɾí.ta)$_\Sigma$)$_\omega$		*	*		
	c.	(a.o.ɾi(.tá)$_\Sigma$)$_\omega$		*	*	*!	
	d.	(a.o(.ɾi.tá)$_\Sigma$)$_\omega$		*	*		*!
(18b) →		(a.o(.ɾí.ta)$_\Sigma$)$_\omega$+it+a					
	e.	(a.o(.ɾí.ti)$_\Sigma$.ta)$_\omega$	*!	*			
☞	f.	(a.o.ɾi(.tí.ta)$_\Sigma$)$_\omega$		*	*		
	g.	(a.o.ɾi.ti(.tá)$_\Sigma$)$_\omega$		*	*	*!	
	h.	(a.o.ɾi(.ti.tá)$_\Sigma$)$_\omega$		*	*		*!

The same constraint rankings that account for base-final TE deletion (15b) and rightward stress shift in simple (17b), (18b) and iterated (18f) diminutives in CaS can be assumed

to apply in both JS and CoS. This accounts for generalization (13d), which pertains to all three Hispano-Romance varieties. We now turn to cross-linguistic differences.

4. Diminutive Suffix Allomorphy Conditioned by Consonantal Place Dissimilation

In this section, we provide an OT account of the JS/CoS DIM [ik] ~ [it] alternation in terms of phonologically conditioned allomorphy. We argue that the DIM has two input allomorphs, /ik/ and /it/, and that the two Hispano-Romance varieties choose one or the other as the preferred allomorph. An argument in favor of this approach comes from the fact that neither variety has a regular, synchronic process of consonantal place dissimilation outside the morphological context of the DIM.

Recent accounts of phonologically conditioned allomorphy posit lexically ordered allomorphs and a PRIORITY constraint enforcing the lexical ordering, which interacts with other constraints in an OT grammar (Bonet et al. 2007; Mascaró 2007; McCarvel 2016, among others). Following McCarvel (2016), we define PRIORITY (19) as a markedness constraint that is violated when the unmarked (default) allomorph is not selected:

(19) PRIORITY (McCarvel 2016, p. 43; cf. Mascaró 2007, p. 726)
Assign a violation for use of any allomorph in the output other than the unmarked (default) allomorph.

Previous studies using PRIORITY (Bonet et al. 2007; Mascaró 2007; Bradley and Smith 2011; McCarvel 2016, among others) order the preferred allomorph above, '›', other allomorphs, a convention that we also adopt here. Table 3 gives the representation of the DIM across three Hispano-Romance varieties:

Table 3. Representations of the shorter DIM in JS, CoS, and CaS. ('›' = 'is preferred over').

Variety	Representation
JS	DIM = {ik›it}
CoS	DIM = {it›ik}
CaS	DIM = it

JS and CoS have both [ik] and [it] enclosed within braces { }, with the unmarked (default) allomorph ordered above the non-default allomorph. CaS has [it] but lacks [ik]. Furthermore, in the output–output model of diminutive formation in Figure 1, the DIM representations of Table 3 are technically not input but output forms, which aligns with McCarvel's (2016) definition of PRIORITY as not a faithfulness but a markedness constraint. In classic OT, input–output faithfulness evaluates corresponding inputs and outputs, while markedness and output–output faithfulness evaluate only outputs.

Given the output–output model in Figure 1, when one of the allomorphs of DIM is selected, output–output faithfulness constraints on features and segments are vacuously satisfied. Since faithfulness is irrelevant, the optimal allomorph is decided by the interaction between PRIORITY and other markedness constraints in the grammar. In the OT literature, this effect is commonly known under the rubric of The Emergence of the Unmarked (TETU): markedness constraints that are typically inactive obtain the chance to exert their effects when higher-ranking faithfulness constraints are rendered inert. Beyond the specific context in which multiple allomorphs are available, faithfulness constraints otherwise prevent changing the features and segments of morphemes. This approach to consonantal place dissimilation in JS/CoS naturally explains why the alternation emerges only in the context of diminutive suffix allomorphy.

We adopt the phonological features in Table 4, which permit a representational distinction among the relevant segments as a function of consonantal place (C-Place) and manner specifications. [coronal] consonants involve the tongue tip or blade and [dorsal] consonants, the tongue dorsum. [continuant] segments are produced with (–) or without (+) full vocal tract closure. [voice] segments are produced with (+) or without (–) vocal fold vibration (see Chomsky and Halle 1968, pp. 293–329; Hayes 2009, pp. 70–102).

Table 4. Relevant phonological features of coronal and dorsal consonants.

	t	d	s	z	k	g	x	w
C-Place	cor	cor	cor	cor	dors	dors	dors	dors
[cont]	–	–	+	+	–	–	+	+
[voi]	–	+	–	+	–	+	–	+

The base-diminutive constraint (20) requires corresponding segments in the outputs [base+DIM+TE] and [diminutive] to have identical C-Place features.

(20) BASEDIMINUTIVE-IDENTITY(C-Place)—BD-IDENT(C-Pl)
Assign a violation for every segment of [base+DIM+TE] whose correspondent in the diminutive does not have identical C-Place.

The next step towards an analysis of dissimilation is to define the markedness constraints that are responsible for the alternation. Dissimilation can be understood as the avoidance, within some locally defined prosodic domain, of sufficiently similar consonants, defined in terms of shared phonological features. de Lacy (2006, p. 2) formalizes a universal markedness scale for C-Place, enclosed by vertical lines '|' in (21a):

(21) a. | dorsal ▸ labial ▸ coronal ▸ glottal | ('▸' = 'is more marked than')
b. *{dors} Assign a violation for each [dorsal] feature.
c. *{dors,lab} Assign a violation for each [dorsal] and each [labial] feature.
d. *{dors,lab,cor} Assign a violation for each [dorsal], each [labial], and each [coronal] feature.
e. *{dors,lab,cor,gl} Assign a violation for each [dorsal], each [labial], each [coronal], and each [glottal] feature.

We use the symbol '▸' to indicate markedness relations among C-Place features, which are opposite in directionality to the allomorph preference relations expressed by '›' in Table 3. For example, |dorsal ▸ labial| means that dorsal C-Place is more marked (and less preferred) than labial C-Place, while JS {ik›it} means that the allomorph [ik] is more preferred (and less marked) than [it]. The scale in (21a) projects the markedness constraints (21b–e), which assign a violation for each C-Place feature enclosed within braces { } in the output. These constraints form a stringency hierarchy, which means that their universal ranking need not be stipulated in order to account for cross-linguistic implications among C-Place features. For example, the dorsal stop [k] violates both *{dors} and *{dors,lab,cor}, while the coronal stop [t] violates only *{dor,lab,cor}. Therefore, [k] is inherently more marked than [t], even if *{dors} is ranked below *{dors,lab,cor}. The stringency relation exists because violations of the more specific *{dors} form a subset of the violations of the more general *{dors,lab,cor}. This specific-to-general relationship follows from the fact that each markedness constraint includes all of the more marked C-Place features that appear to the left of '▸' along the scale in (21a). See de Lacy (2006) for further explanation of how stringency makes stipulating universally fixed rankings in OT unnecessary.

A theory-internal motivation for ordering the JS DIM [ik] as the default allomorph above [it] in Table 3 comes from the fact that the C-Place hierarchy alone is incapable of selecting the correct allomorph. If we consider an unordered set of DIM allomorphs {it,ik}, as in tableau (22), then [it] is incorrectly chosen as optimal, regardless of the ranking of the three constraints. Either violation of *{dors} or *{dors,lab} by (22b) can be considered fatal, as indicated by the parentheses around the exclamation points. The symbol '💣' means that (22a) is predicted as the winner but should not be. By contrast, assuming an ordered set of DIM allomorphs {ik›it}, as in tableau (23), allows for high-ranking PRIORITY to choose the correct allomorph (23b), even though the [k] of [ik] is more marked in terms of C-Place features. The designation of [ik] as the default allomorph in JS is also motivated by the fact that [ik] appears as part of the longer allomorph *-eziko/a* (see Table 1) and by the wider surface distribution of [ik] in simple diminutives, as discussed in Section 2.1.

(22)		{it,ik}	*{dors}	*{dors,lab}	*{dors,lab,cor}
💣	a.	it			*
	b.	ik	*(!)	*(!)	*

(23)		{ik›it}	PRIORITY	*{dors}	*{dors,lab}	*{dors,lab,cor}
	a.	it	*!			*
☞	b.	ik		*	*	*

Dissimilation can be formalized in OT as the local self-conjunction of markedness constraints (Alderete 1997; Ito and Mester 1998, 2003; McCarthy 2008, p. 218). The key idea behind this approach is that having multiple constraint violations in a local domain is categorically worse than having the same violations in a non-local domain. We argue that consonants in the initial position of two adjacent syllables are evaluated by the self-conjoined markedness constraints (24a,b). The local self-conjunction of *{dors} (21b) yields (24a), abbreviated as *.K^2, while the local self-conjunction of *{dors,lab,cor} (21d) in combination with the features [–cont,–voi] yields *.{kpt}^{2} (24b):

(24) a. *.{dors}^{2}—*.K^2
Assign a violation for every pair of [dorsal] consonants in the initial position of adjacent syllables.

b. *.[{dors,lab,cor},–cont,–voi]^2—*.{kpt}^{2}
Assign a violation for every pair of [dorsal], [labial], or [coronal] voiceless stops in the initial position of adjacent syllables.

The superscript ^{2} means that the constraint penalizes two occurrences, i.e., a repetition, of the relevant features across the initial positions of two adjacent syllables. Thus, *.K^2 is violated by the repetition of any syllable-initial [dorsal] consonant and is responsible for dissimilation in JS. A question arises as to why *.{kpt}^{2} makes reference to [dorsal] and [labial], when [coronal] is the relevant C-Place feature that triggers dissimilation in CoS. Why not define (24b) more simply as *.[cor,–cont,–voi]^2, abbreviated as *.t^2? The answer is that markedness constraints (21b–e) form a stringency hierarchy, based on how the violations of more specific constraints form subsets of the violations of more general constraints. The only way to pick out [coronal] (and exclude [glottal]) from the scale in (21a)—while maintaining stringency—is to also include the relatively more marked [dorsal] and [labial] C-Place features as part of the definition, in both (21d) and (24b). The prediction is that the repetition of syllable-initial [p] would also be avoided, even though our data sets fail to provide such evidence, as none of the alternations under analysis crucially involves bilabials. Thank you to Brechtje Post (personal communication) for helpful discussion.

In preparation for its application to the three varieties under study, we briefly summarize the key elements of our OT analysis introduced above. PRIORITY (19) enforces the lexical ordering of allomorphs in Table 3. BD-IDENT(C-Pl) (20) requires faithfulness to consonantal place features, while (21b–e) formalize C-Place markedness in terms of stringently related constraints. Further, (24a,b) encode the avoidance of marked structures that repeat sufficiently similar consonants in the initial position of adjacent syllables.

4.1. JS

The examples of JS simple and iterated diminutives in Table 5 show that (i) {ik›it}+TE attaches to the right edge of the base, shifting the Σ rightward in the diminutive ω, and (ii) base-final vowels delete before the vowel-initial DIM {ik›it}.

Table 5. JS simple diminutive *kapika* < *kapa* 'cap' (a) and iterated diminutive *pokitiko* < *pokito* < *poko* 'tiny bit' (b).

	[Base+DIM+TE]		[Diminutive]	
(a)	$((\text{ká.pa})_{\Sigma})_{\omega}$+{ik›it}+a	→	$(\text{ka(.pí.ka)}_{\Sigma})_{\omega}$	
(b)	$((\text{pó.ko})_{\Sigma})_{\omega}$+{ik›it}+o	→	$(\text{po(.kí.to)}_{\Sigma})_{\omega}$	→
	$(\text{po(.kí.to)}_{\Sigma})_{\omega}$+{ik›it}+o	→	$(\text{po.ki(.tí.ko)}_{\Sigma})_{\omega}$	

We argue that in the JS grammar, BD-IDENT(C-Pl) dominates *.K^2, which in turn dominates both PRIORITY and *.{kpt}^{2}. In JS *kapika* < *kapa* (25), BD-IDENT(C-Pl) prevents changing C-Place in the consonant of the base-final syllable (c). PRIORITY prevents selecting the non-default DIM [it] (b). The default DIM [ik] emerges as optimal after bilabial [p] (a).

(25)		$((\text{ká.pa})_{\Sigma})_{\omega}$+{ik›it}+a	BD-IDENT(C-Pl)	*.K^2	PRIORITY	*.{kpt}^{2}
☞	a.	$(\text{ka(.pí.ka)}_{\Sigma})_{\omega}$				
	b.	$(\text{ka(.pí.ta)}_{\Sigma})_{\omega}$			*!	
	c.	$(\text{ka(.tí.ka)}_{\Sigma})_{\omega}$	*!			

In the analysis of JS *pokitiko* < *pokito* < *poko*, illustrated in tableau (26) below, BD-IDENT(C-Pl) prevents changing C-Place in consonants of the base (c,f,g). In the simple diminutive, *.K^2 prevents initial [dorsal] consonants in adjacent syllables (a), and dissimilation involves selecting the non-default DIM [it] after [k] while tolerating the violation of low-ranking PRIORITY (b). In the iterated diminutive, PRIORITY or *.{kpt} prevents selecting the non-default DIM [it] (e), and dissimilation involves selecting default [ik] after [t] (d). The relationship between PRIORITY and *.{kpt} is indeterminate because either ranking guarantees the same winners in (b,d). The ranking of *.K^2 above PRIORITY ensures that JS DIM allomorphs [it] in *pokito* (b) and [ik] in *pokitiko* (d) alternate across successive syllables within the diminutive ω.

Although not shown here, the input–output correspondence constraint IO-IDENT(C-Pl) ranks above both *.K^2 and *.{kpt}^{2}. Along with high-ranking BD-IDENT(C-Pl), this ensures that dissimilation in C-Place can emerge as an unmarked realization only in morphological environments derived by the suffixation of a set of DIM allomorphs. For example, the [k. . .k] and [t. . .t] sequences in JS *kakao* 'cocoa' and *total* 'total' (Nehama 1977, pp. 261, 560) are immune to dissimilation because they appear in non-diminutive words that do not involve allomorph competition. In this context, high-ranking IO-IDENT(C-Pl) prevents changing either consonant of the sequence, and violations of *.K^2 and *.{kpt}^{2} are tolerated in the output. By contrast, C-Place correspondence is inactive when the DIM includes two allomorphs, as selecting either allomorph will vacuously satisfy correspondence. The optimal allomorph emerges instead from the interaction among lower-ranking constraints PRIORITY, *.K^2, and *.{kpt}^{2}, as shown in (25) and (26). We assume that IO-IDENT(C-Pl) also ranks high in CaS and CoS, as in JS.

(26)		((pó.ko)$_{\Sigma}$)$_{\omega}$+{ik›it}+o	BD-IDENT(C-Pl)	*.K^2	PRIORITY	*.{kpt}^{2}
	a.	(po(.kí.ko)$_{\Sigma}$)$_{\omega}$		*!		*
☞	b.	(po(.kí.to)$_{\Sigma}$)$_{\omega}$			*	
	c.	(po(.tí.ko)$_{\Sigma}$)$_{\omega}$	*!			
(26b) →		(po(.kí.to)$_{\Sigma}$)$_{\omega}$+{ik›it}+o				
☞	d.	(po.ki(.tí.ko)$_{\Sigma}$)$_{\omega}$				
	e.	(po.ki(.tí.to)$_{\Sigma}$)$_{\omega}$			*(!)	*(!)
	f.	(po.ki(.kí.ko)$_{\Sigma}$)$_{\omega}$	*!	**		**
	g.	(po.ki(.kí.to)$_{\Sigma}$)$_{\omega}$	*!	*	*	*

4.2. CoS

Dissimilation is variable in CoS simple diminutives (5) and (6). CoS iterated diminutives (7)–(10) show three distinct patterns, summarized in Table 6: (a) only the default DIM [it] iterates (cf. CaS (12)), (b) [it] ~ [ik] alternate (cf. JS (3a)), and (c) [it] iterates until alternating with word-final [ik].

Table 6. CoS iterated diminutives *cortitita* < *cortita* < *corta* 'short' (a), *cortiquita* < *cortica* < *corta* (b), and *cortitica* < *cortita* < *corta* (c).

	[Base+DIM+TE]		**[Diminutive]**	
(a)	((kór.ta)$_{\Sigma}$)$_{\omega}$+{it›ik}+a	→	(kor(.tí.ta)$_{\Sigma}$)$_{\omega}$	→
	(kor(.tí.ta)$_{\Sigma}$)$_{\omega}$+{it›ik}+a	→	(kor.ti(.tí.ta)$_{\Sigma}$)$_{\omega}$	
(b)	((kór.ta)$_{\Sigma}$)$_{\omega}$+{it›ik}+a	→	(kor(.tí.ka)$_{\Sigma}$)$_{\omega}$	→
	(kor(.tí.ka)$_{\Sigma}$)$_{\omega}$+{it›ik}+a	→	(kor.ti(.kí.ta)$_{\Sigma}$)$_{\omega}$	
(c)	((kór.ta)$_{\Sigma}$)$_{\omega}$+{it›ik}+a	→	(kor(.tí.ta)$_{\Sigma}$)$_{\omega}$	→
	(kor(.tí.ta)$_{\Sigma}$)$_{\omega}$+{it›ik}+a	→	(kor.ti(.tí.ka)$_{\Sigma}$)$_{\omega}$	

The three CoS patterns differ in whether and when the ranking of PRIORITY above *.{kpt}^{2} is reversed during the recursive evaluation of iterated diminutive outputs. Pattern (a) in Table 6 is predicted by maintaining the high-ranking of PRIORITY for both simple (27a) and iterated (27d) diminutives. Pattern (b) is predicted by a re-ranking of PRIORITY below *.{kpt}^{2} for both simple (28b) and iterated (28d) diminutives. Finally, pattern (c) is predicted by a re-ranking of PRIORITY below *.{kpt}^{2} at the point when the final DIM suffix is added to the base (29e). In CoS, the DIM [ik] never repeats without alternating because BD-IDENT(C-Pl) prevents changing syllable-initial [t] in the base, in both simple (29c) and iterated (29f–k) diminutives.

(27)		((kór.ta)$_{\Sigma}$)$_{\omega}$+{it›ik}+a	BD-IDENT(C-Pl)	*.K^2	PRIORITY	*.{kpt}^{2}
☞	a.	(kor(.tí.ta)$_{\Sigma}$)$_{\omega}$				*
	b.	(kor(.tí.ka)$_{\Sigma}$)$_{\omega}$			*!	
	c.	(kor(.kí.ta)$_{\Sigma}$)$_{\omega}$	*!	*		*
(27a) →		(kor(.tí.ta)$_{\Sigma}$)$_{\omega}$+{it›ik}+a				
☞	d.	(kor.ti(.tí.ta)$_{\Sigma}$)$_{\omega}$				**
	e.	(kor.ti(.tí.ka)$_{\Sigma}$)$_{\omega}$			*!	
	f.	(kor.ti(.kí.ta)$_{\Sigma}$)$_{\omega}$	*!			

(28)		((kóɾ.ta)ᴇ)ω+{it›ik}+a	BD-IDENT(C-Pl)	*.K²	*.{kpt}²	PRIORITY
	a.	(koɾ(.tí.ta)ᴇ)ω			*!	
☞	b.	(koɾ(.tí.ka)ᴇ)ω				*
	c.	(koɾ(.kí.ta)ᴇ)ω	*!	*	*	
(28b) →		(koɾ(.tí.ka)ᴇ)ω+{it›ik}+a				
☞	d.	(koɾ.ti(.kí.ta)ᴇ)ω				
	e.	(koɾ.ti(.kí.ka)ᴇ)ω		*(!)	*(!)	*
	f.	(koɾ.ti(.tí.ka)ᴇ)ω	*!			*

(29)		((kóɾ.ta)ᴇ)ω+{it›ik}+a	BD-IDENT(C-Pl)	*.K²	PRIORITY	*.{kpt}²
☞	a.	(koɾ(.tí.ta)ᴇ)ω				*
	b.	(koɾ(.tí.ka)ᴇ)ω			*!	
	c.	(koɾ(.kí.ta)ᴇ)ω	*!	*		*
(29a) →		(koɾ(.tí.ta)ᴇ)ω+{it›ik}+a			*.{kpt}²	PRIORITY
	d.	(koɾ.ti(.tí.ta)ᴇ)ω			**!	
☞	e.	(koɾ.ti(.tí.ka)ᴇ)ω			*	*
	f.	(koɾ.ti(.kí.ta)ᴇ)ω	*!			
	g.	(koɾ.ti(.kí.ka)ᴇ)ω	*!	*	*	*
	h.	(koɾ.ki(.kí.ka)ᴇ)ω	*!*	***	***	*
	i.	(koɾ.ki(.tí.ka)ᴇ)ω	*!	*	*	*
	j.	(koɾ.ki(.kí.ta)ᴇ)ω	*!*	**	**	
	k.	(koɾ.ki(.tí.ta)ᴇ)ω	*!	*	*	

More generally, the stringency relationship between *.K² and *.{kpt}² ensures that, no matter how the two self-conjoined markedness constraints are ranked, a structure such as [.ki.ka] (30b) and (31b) is inherently more marked than [.ti.ta] (30a) and (31a):

(30)			*.K²	*.{kpt}²
☞	a.	.ti.ta		*
	b.	.ki.ka	*!	*

(31)			*.{kpt}²	*.K²
☞	a.	.ti.ta	*	
	b.	.ki.ka	*	*!

Although there may be differences in the language-specific ordering of DIM allomorphs and the relative ranking of PRIORITY, repeating initial [k] across two adjacent syllables will always be relatively more marked than repeating initial [t] in the same context.

Recall that the JS DIM [ik] alternates with [it] after any syllable-initial dorsal consonant (2), whereas the CoS DIM [it] alternates with [ik] only after syllable-initial [t] (5) and (8)–(10). Why do these two grammars differ in what counts as sufficiently similar? The answer has to do with how we formalized the self-conjoined markedness constraints that are responsible for dissimilation. While (24a) refers simply to the most marked C-Place feature [dorsal], (24b) refers to the less marked [coronal] in combination with two specific manner features. In JS *bragita* < *braga* 'trousers' (2b) and *blahitu* < *blahu* 'Christian' (2c), *.K² (24a) prevents initial dorsals in adjacent syllables, *even if they differ* in manner features, e.g., [voice] in *[.gí.ka] (32a) or [continuant] in *[.xí.ku] (33a):[7]

(32)		((bɾá.ga)ᴇ)ω+{ik›it}+a	*.K²	*.{kpt}²	PRIORITY
	a.	(bɾa(.gí.ka)ᴇ)ω	*!		
☞	b.	(bɾa(.gí.ta)ᴇ)ω			*

(33)		((blá.xu)ᴇ)ω+{ik›it}+u	*.K²	*.{kpt}²	PRIORITY
	a.	(bla(.xí.ku)ᴇ)ω	*!		
☞	b.	(bla(.xí.tu)ᴇ)ω			*

In CoS *caldito* < *caldo* 'soup, broth' and *bracito* < *brazo* 'arm' (4b), *.{kpt}² (24b) allows initial coronals in adjacent syllables, *as long as they differ* in manner features, e.g., [voice] in [.dí.to] (34a) or [continuant] in [.sí.to] (35a):

(34)		((kál.do)ᴇ)ω+{it›ik}+o	*.K²	*.{kpt}²	PRIORITY
☞	a.	(kal(.dí.to)ᴇ)ω			
	b.	(kal(.dí.ko)ᴇ)ω			*!

(35)		((bɾá.so)ᴇ)ω+{it›ik}+o	*.K²	*.{kpt}²	PRIORITY
☞	a.	(bɾa(.sí.to)ᴇ)ω			
	b.	(bɾa(.sí.ko)ᴇ)ω			*!

4.3. CaS

We return, at last, to the baseline variety CaS, which has the DIM [it] but lacks [ik]. If there is no dissimilatory alternation, then allomorph ordering plays no decisive role in the analysis, and the ranking of PRIORITY with respect to *.K² and *.{kpt}² is indeterminate. High-ranking faithfulness constraints IO-IDENT(C-Pl) and BD-IDENT(C-Pl) generally prevent changing C-Place features in bases and in simple and iterated diminutives. This means that violations of low-ranking similarity avoidance constraints *.K² and *.{kpt}² will be tolerated in CaS, which allows for recursive iteration of [it] without C-Place dissimilation.

4.4. Summary

The OT analysis presented in this section accounts for the remaining generalizations left unaddressed in Section 3. First, (13a) is understood as cross-linguistic variation in the phonological representation of the DIM, as shown in Table 3. If there are two ordered allomorphs, then PRIORITY can potentially enforce a preference for the default allomorph. Second, the inclusion of [–cont,–voi] along with C-Place features in the definition of *.{kpt}² (24b) accounts for the difference between CoS and JS in (13b). In diminutive suffixation, the syllable-initial consonants that trigger dissimilation need share only the feature [dorsal] in JS, but in CoS, must be totally identical, sharing [coronal], [–continuant], and [–voice]. Finally, differences in the ranking of PRIORITY and *.{kpt}² account for generalization (13c), thereby predicting the three patterns of iterated diminutives as a function of whether and when re-ranking occurs during the recursive process of candidate evaluation.

5. Theoretical Alternatives

To our knowledge, V. M. Prieto (2005, p. 34) is the first to suggest that the alternation between DIM [it] and [ik] in Latin American Spanish can be captured in OT by a markedness constraint based on the Obligatory Contour Principle (OCP). The OCP was originally proposed in tonal phonology (Leben 1973; Goldsmith 1976) and was later extended to segmental phonology (McCarthy 1986) as a way of prohibiting two adjacent identical elements on a given phonological tier. V. M. Prieto argues that a high-ranked OCP constraint

can explain, for example, why the diminutive of *carta* 'letter' is *cartica* instead of **cartita:* *[t. . .t] has two adjacent identical segments on the consonantal tier, which [t. . .k] avoids. However, a serious problem with this approach is that a general OCP constraint against adjacent identical segments fails to explain why JS [ik] alternates with [it] after *any* dorsal consonant, regardless of manner features. Apparently, the syllable-initial consonants that trigger dissimilation need not be totally identical. A solution to this problem in JS phonology would be to allow the OCP to refer to the C-Place feature [dorsal] alone.

Bradley and Smith (2011) propose such a solution to account for the alternation between JS *-iko/a* and *-ito/a:* "Avoid [dorsal] consonants that are adjacent across an intervening vowel" (p. 22). An additional problem for both Bradley and Smith's OCP(dorsal) and V.M. Prieto's more general OCP constraint is that segmental adjacency on the consonantal tier fails to explain dissimilation in, e.g., JS *negrito* < *negro* 'bad' (see (38b) in Appendix A) and CoS *maestrico/a* < *maestro/a* 'teacher' (Lipski 1999), *letrica* < *letra* 'letter' (see (40) of Appendix B), and *atlicas* < *atlas* 'atlas' (see Note 4). In **negriko*, **maestrito/a*, **letrita*, and **atlitas*, a liquid intervenes between the two consonants in [ɡ. . .k] and [t. . .t], which are not adjacent on the consonantal tier and, therefore, should be unable to trigger the OCP violations.

Both of these shortcomings constitute a strong argument in favor of the similarity avoidance constraints *.K^2 (24a) and *.{kpt}^{2} (24b), which correctly assign a violation to every pair of sufficiently similar consonants in the initial position of adjacent syllables. Because adjacency on the consonantal tier is not required, this approach correctly prohibits marked sequences in which the triggering consonants appear in the initial position of adjacent syllables even when there is an intervening liquid in the second position of the first onset, rendering the relevant consonants technically non-adjacent.

Although they both invoke the OCP as a way of modeling the C-Place alternation between diminutive suffixes, V. M. Prieto (2005, p. 34) and Bradley and Smith (2011) do not attempt to explain why dissimilation is blocked from applying in non-diminutive words, as can be observed in JS *kakao* 'cocoa' and *total* 'total'. An advantage of the analysis proposed in the present article is that high-ranking IO-IDENT(C-Pl) and BD-IDENT(C-Pl) effectively restrict dissimilation to environments derived by the suffixation of a set of ordered DIM allomorphs.

Previous Stratal OT accounts of Hispano-Romance diminutive formation neither acknowledge nor attempt to model the C-Place alternation between DIM [ik] and [it]. Bermúdez-Otero (2006, 2007, 2013) proposes that the Spanish DIM /it/ is attached to the morphological stem within the Word Level (WL) domain, where it triggers a process of stem-final unstressed vowel (TE) deletion. A key argument for assuming that stems are lexically stored with TE vowels, and that such vowels are phonologically deleted before vowel-initial suffixes, comes from words that show a stem-based alternation between unstressed mid vowels /o,e/ and corresponding stressed diphthongs /we,je/. Specifically, diphthongization is argued to apply unexpectedly, i.e., to overapply, in the unstressed syllable of the diminutive form of such words. For example, both *portero* 'doorman' (36a) and *puertita* 'little door' (36b) share the same stem, /p{o,we}ɾt-a/, which includes /o/ and /we/ as part of two lexically listed allomorphs, i.e., /poɾt-a/ and /pweɾt-a/ (Bermúdez-Otero 2006, p. 286):

(36)

	a. *portero*	b. *puertita*
domain structure	⟦$_{WL}$ ⟦$_{SL}$ p{o,we}ɾt-a-eɾ-o ⟧⟧	⟦$_{WL}$ ⟦$_{SL}$ p{o,we}ɾt-a ⟧it-a ⟧
SL	poɾ.té.ɾo	pwéɾ.ta
WL	poɾ.té.ɾo	pweɾ.tí.ta
	'doorman'	'little door'

The masculine suffix *-ero* (cf. feminine *-era*) which derives, for example, names of professions, is attached to the stem /p{o,we}ɾt-a/ within the Stem Level (SL) domain, indicated by hollow brackets ⟦$_{SL}$ . . . ⟧(36a). Since stress is assigned to the penultimate syllable in (poɾ(.té.ɾo)$_{\Sigma}$)$_{\omega}$ and ((pwéɾ.ta))$_{\Sigma}$)$_{\omega}$, the SL constraint ranking (not shown here) optimizes unstressed [o] in the former versus stressed [wé] in the latter. These SL outputs then

become inputs to the constraint ranking that operates over the WL domain $[\![_{\text{WL}} \ldots]\!]$, where the diminutive suffix is attached (36b). Although stress is shifted rightward, [we] is still maintained in the unstressed antepenultimate syllable of the WL output $(\text{pwe}\textsc{r}(.\text{tí.ta}))_{\Sigma})_{\omega}$ in (36b). Diphthongization turns out to be opaque because it applies in the SL domain, before the DIM is attached in the WL domain.[8]

Ohannesian and Pons (2009) provide an alternative, monostratal OT analysis of opaque diphthongization in diminutives using output–output faithfulness. In their approach, morphologically related pairs such as <pwér.ta, pwer.tí.ta> constitute "a subparadigm included in the paradigm which comprises all the words derived from the base" (p. 88). A high-ranking output–output faithfulness constraint on the base-diminutive subparadigm eliminates the whole paradigm candidate <pwér.ta, por.tí.ta, por.té.ro>, in which members of the subparadigm <pwér.ta, por.tí.ta> differ with respect to the diphthong versus mid vowel distinction. The whole paradigm candidate <pwér.ta, pwer.tí.ta, por.té.ro> is optimal, in which diphthongization overapplies in the base-diminutive subparadigm. However, Ohannesian and Pons (2009), like Bermúdez-Otero (2006, 2007, 2013), do not consider C-Place dissimilation.

Because no Stratal OT account of DIM [ik] and [it] has ever been proposed in the literature, we are reluctant to hastily put together an explicit analysis only to then argue against a strawman. This would require us to commit to a number of theoretical assumptions that practitioners of Stratal OT may or may not share and that are ultimately orthogonal to debate about how many constraint strata there should be in an OT grammar. However, we can sketch out several complexities that a future Stratal OT approach would need to contend with. Since Bermúdez-Otero's account in (36) already appeals to input allomorphy for stems that show an alternation between mid vowels and corresponding diphthongs, a plausible Stratal OT approach to dissimilation in diminutive suffixation might also appeal to two allomorphs [ik] and [it], as in (22). However, the greater C-Place markedness of [ik] over [it] would still seem to require a default vs. non-default ordering of allomorphs, along with a PRIORITY constraint to enforce it, at least in JS (23). Alternatively, if one were to posit JS /ik/ versus CoS /it/ and treat C-Place dissimilation as purely phonological, then it would become necessary to restrict the alternation in some way to the domain of suffixes. Either way, the recursive process of iterated diminutivization would presumably require multiple DIM+TE sequences to be attached to the stem within the WL domain. Under this scenario, the similarity avoidance constraints (24a,b) could start out as low-ranked at the SL stratum, to allow for, e.g., JS *kakao* 'cocoa' and *total* 'total'. Similarity avoidance could then be promoted above input–output faithfulness to C-Place features at the WL stratum, thereby enforcing dissimilation between the onsets of adjacent syllables across multiple DIM+TE sequences (assuming deletion of every non-final TE).

However, it is not clear how such an approach would account for the difference between CoS *cortiquita* (b) and *cortitica* (c) in Table 6. Our understanding is that in Stratal OT, a single constraint ranking is assumed to operate over a given stratum, and constraints can be re-ranked only at the next stratum. As our analysis in tableau (29) makes clear, PRIORITY needs to be re-ranked below *.{kpt}^{2} once the final DIM+TE is attached to the latest base. Since our OT model is monostratal, this re-ranking necessarily takes place not across strata but within a single stratum of the phonological grammar.

6. Conclusions

Based on the data and generalizations presented in Section 2, we have argued that JS, CoS, and CaS differ in their phonological representation of the shorter diminutive suffix, DIM. When there are two surface variants in the same grammar, the representation of the DIM encodes a language-specific preference for the default allomorph, which appears to the left of '›' in the set of allomorphs enclosed within braces: JS {ik›it} and CoS {it›ik} (cf. CaS it), as shown in Table 3.

In Sections 3 and 4, we have developed a formal account of C-Place dissimilation in diminutive suffixation across three Hispano-Romance varieties, within the classic monos-

tratal OT framework. As summarized in Table 7, this way of understanding and explicitly comparing closely related phonological grammars reveals that two of the same constraint rankings are shared in common (a,b) and that cross-linguistic variation stems from crucial re-rankings of PRIORITY and *.{kpt}^{2} (c–f). By contrast, PRIORITY is irrelevant and, therefore, not shown in CaS (g).

Table 7. Summary of constraint rankings, effects, and grammars in Hispano-Romance diminutive suffixation. '»' indicates a crucial ranking of adjacent constraints, and the comma a lack thereof.

	Constraint Ranking	Effect	Variety
(a)	*HIATUS, BD-MAX(V2) » BD-MAX	Base-final vowel deletion in (15)	CaS, JS, CoS
(b)	FTBIN, TROCH, PARSEσ_F » PARSEσ_I, BD-MAX(str)	Rightward stress shift in (17) and (18)	CaS, JS, CoS
(c)	IO/BD-ID(C-Pl) » *.K^2 » PRIORITY, *.{kpt}^{2}	DIM [it] ~ [ik] alternation in (25) and (26)	JS
(d)	IO/BD-ID(C-Pl) » *.K^2, PRIORITY » *.{kpt}^{2}	Iteration of DIM [it] in (27)	CoS
(e)	IO/BD-ID(C-Pl) » *.K^2, *.{kpt}^{2} » PRIORITY	DIM [it] ~ [ik] alternation in (28)	CoS
(f)	IO/BD-ID(C-Pl) » *.K^2, PRIORITY » *.{kpt}^{2}	Iteration of DIM [it] until...	CoS
	then: ... *.{kpt}^{2} » PRIORITY	...alternation with word-final [ik] in (29)	
(g)	IO/BD-ID(C-Pl) » *.K^2, *.{kpt}^{2}	Iteration of DIM [it] in Section 4.3	CaS

Together, these representations and rankings provide an explicit, formal account of several properties of Hispano-Romance simple and iterated diminutives, which are given in (13). The same DIM allomorphs [ik] and [it] are present in JS and CoS but under the opposite ordering. The consonants that trigger dissimilation need share only the feature [dorsal] in JS but must be totally identical in CoS. Iterated diminutives show three patterns: only [it] iterates, [it] ~ [ik] alternate, or [it] iterates until alternating with word-final [ik]. In particular, the third pattern of iterated diminutives has remained unacknowledged in the literature until now. Unstressed TE vowels of the base are deleted before DIM [it] and [ik], and the stress of the base is shifted rightward in the diminutive, which must end in either TE [o] or [a].

The present study has delivered a systematic cross-linguistic comparison and analysis of diminutive formation, which would have been impossible without the empirical foundations laid by previous descriptive studies of JS (Bunis 2003) and CoS (Fontanella 1962). We have proposed to understand CaS, JS, and CoS as generative grammars in which phonological representations are optimized by specific rankings of universal, violable constraints. Such an approach makes it possible to identify, in a formally explicit way, both similarities and differences across the three Hispano-Romance varieties, and to provide explanations of these patterns in terms of interacting, violable, surface-oriented constraints. The OT framework hypothesizes that universal constraints belong to all natural human languages and that their different rankings give rise to systematic differences across possible languages and dialects.

We hope to have shown that JS and CoS deserve to have a voice in current phonological theorizing. By analyzing the interaction between morphology and phonology in diminutive suffixation, we have situated JS, CoS, and CaS within a Hispano-Romance typology of consonantal dissimilation patterns. We have also argued that similarity avoidance effects in JS and CoS that have been previously analyzed in terms of the OCP are better understood as locally self-conjoined markedness constraints, in line with the analysis of dissimilation in diminutive suffixation proposed in this article.

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Appendix A

The following data sets contain all of the examples of simple diminutives that we extracted from Bunis's (2003) chapter, including the allomorphs [ik] (37) and [it] (38), along with page numbers:

(37)	Context	Diminutive	Base		
a.	.{p, b, v, m}_	*kapika*	*kapa*	'cap'	213
		gulubika	*guluba*	'pigeon'	214
		manseviko	*mansevo*	'young man'	214
		tavlika	*tavla*	'board'	213
		livriko	*livro*	'book'	213
		patimiko	*pátimo*	'step'	214
		ramika	*rama*	'branch'	213
		tilimikos	*tilim*	'Psalms'	213
b.	.{t, d, z, n, ɾ, r, l}_	*altiko*	*alto*	'tall'	213
		banketika	*banketa*	'gambling bank'	214
		chibritiku	*chibrit*	'match'	213
		gatiko	*gato*	'cat'	211
		kamaretika	*kamareta*	'bedroom'	214
		kartika	*karta*	'card'	213
		momentiko	*momento*	'moment'	215
		prezentiko	*prezente*	'gift'	214
		Rutika	*Rud*	(name)	207
		salatika	*salata*	'salad'	214
		tantiko	*tanto*	'so much'	213
		vestimyentika	*vestimyenta*	'garment'	214
		adjuntadiku	*adjuntadu*	'united'	214
		apegadika	*apegada*	'attached'	214
		awnadiku	*awnadu*	'united'	214
		demazyadiko	*demazyado*	'too much'	214
		dezmazaladiko	*dezmazalado*	'unfortunate'	214
		Gadiko	*Gad*	(name)	207
		gritandiko	*gritando*	'shouting'	215
		intindidiku	*intindidu*	'intelligent'	214
		kriadiku	*kriadu*	'child'	214
		kuydadiko	*kuydado*	'be careful!'	214
		ladiko	*lado*	'side'	213
		pekadiko	*pekado*	'sin'	214
		Pedriko	*Pedro*	(name)	213
		vestidiko	*vestido*	'suit'	214
		ermoziko	*ermozo*	'beautiful'	214
		mezika	*meza*	'table'	213
		Mwiziko	*Mwís/-z*	(name)	213
		rozika	*roza*	'rose'	213
		chintiyaniko	*chintiyán*	'trousers'	214

		Daniko	*Dan*	(name)	207
		Djwaniko	*Djwan*	(name)	207
		de manyanika	*demanyana*	'in the morning'	215
		en vaniko	*en vano*	'in vain'	215
		ermaniko	*ermano*	'brother'	214
		findjaniko	*findján*	'small cup'	213
		Haniko	*Hané*	(name)	210
		kadenika	*kadena*	'chain'	214
		koronika	*korona*	'crown'	214
		Reynika	*Reyna*	(name)	213
		shadrivaniko	*shadriván*	'fountain'	214
		tempraniko	*temprano*	'early'	215
		batiriko	*batir*	'beating'	214
		devagariko	*devagar*	'slowly, softly'	214
		Ezriko	*Ezrá*	(name)	208
		folariko	*folar*	'egg pastry'	213
		ger(r)eriko	*ger(r)ero*	'warrior'	214
		hamoriko	*hamor*	'donkey'	213
		kriaturika	*kriatura*	'child'	214
		lugariko	*lugar*	'place'	213
		mezameriko	*mezamer*	'asstistant cantor'	214
		moriko	*moro*	'Moor'	213
		orika	*ora*	'hour'	213
		pashariko	*pásharo*	'bird'	214
		Pyeriko	*Pyer*	(name)	207
		Sarika	*Sará*	(name)	208
		shubarika	*shubara*	'fur cap'	214
		sinyoriko	*sinyor*	'sir'	213
		Sterika	*(E)ster*	(name)	207
		karriko	*karro*	'wagon'	213
		perriko	*perro*	'dog'	221
		arvoliko	*árvole*	'tree'	214
		bimweliko	*bimwelo*	'fritter'	214
		Eliko	*Elí*	(name)	210
		hamaliko	*hamal*	'porter'	213
		kavdaliko	*kavdal*	'capital'	213
		kazaliko	*kazal*	'village'	213
		paliko	*palo*	'stick'	213
		papeliko	*papel*	'paper'	213
		Solika	*Sol*	(name)	207
		soliko	*solo*	'alone'	213
c.	.{ʧ, ʃ, ʒ, j}_	*biskochiko*	*biskocho*	'biscuit'	214
		estrechika	*estrecha*	'narrow'	214
		kolchika	*kolcha*	'blanket'	213
		bashiko	*basho*	'short'	213
		kashika	*kasha*	'box, drawer'	213
		leshikos	*leshos*	'far'	213
		Moshiko	*Moshé*	(name)	210
		yidishiko	*yídish*	'Ashkenazic man'	213
		ijiko	*ijo*	'son'	213
		navajika	*navaja*	'razor'	214
		ojiko	*ojo*	'eye'	213
		bo(y)iko	*boyo*	'bun'	213
		ga(y)iko	*gayo*	'rooster'	213
		Hananyiko	*Hananyá*	(name)	208
		Sabetayiko	*Sabetay*	(name)	209
		shada(y)iko	*Shaday*	(God of a charm)	213
d.	.V_	*Djohaiko*	*Djohá*	(name)	208
		eskrivaniika	*eskrivanía*	'writing case'	214
		Leika	*Leá*	(name)	208
		Yudaiko	*Yudá*	(name)	208

(38) a.	.k_	*bayrakito*	*bayrak*	‘flag’	210
		bishlikitu	*bishlik*	‘five-piastre coin’	211
		blankito	*blanko*	‘white’	211
		bokita	*boka*	‘mouth’	211
		burakito	*burako*	‘hole’	210
		burikita	*bur(r)eka*	‘filled pastry’	211
		chorekito	*chorek*	‘round loaf’	210
		dikdukito	*dikduk*	‘grammar book’	211
		erkyekito	*erkyek*	‘male’	211
		(E)s.hakito	*(E)s.hak*	(name)	211
		fis(h)kita	*fis(h)ka*	‘pimple’	211
		frankito	*franko*	‘Western European’	211
		freskito	*fresko*	‘fresh’	211
		hendekito	*hendek*	‘moat’	211
		Jakito	*Jak*	(name)	207
		kantikita	*kantika*	‘song’	210
		kapakito	*kapak*	‘lid’	210
		kashkita	*kashka*	‘skin, peel’	211
		kayikito	*kayik*	‘rowboat’	211
		librikito	*(l)ibrik*	‘water ewer’	210
		mankito	*manko*	‘less’	211
		moshkita	*moshka*	‘fly’	211
		okita	*oka*	‘measure of weight’	211
		parlakito	*parlak*	‘match’	211
		pasukito	*pasuk*	‘(biblical) verse’	211
		Rifkita	*Rifká*	(name)	211
		sakito	*sako*	‘sack’	211
		serkita	*serka*	‘near’	211
		turkito	*turko*	‘Turk; Muslim’	211
		vakita	*vaka*	‘cow’	210
	b. .{g, g^{w}}_	*albondigita*	*albondiga*	‘meatball’	210
		amigito	*amigo*	‘friend’	210
		bogito	*bogo*	‘large, soft bundle’	210
		bragita	*braga*	‘trousers’	210
		figito	*figo*	‘fig’	210
		gregito	*grego*	‘Greek’	210
		hw-/fwegito	*hw-/fwego*	‘fire’	210
		kantigita	*kantiga*	‘song’	210
		largito	*largo*	‘long’	210
		lungito	*lungo*	‘long’	210
		Megita	*Meg*	(name)	207
		migita	*miga*	‘crumb’	210
		minagito	*minag*	‘custom’	210
		negrito	*negro*	‘bad’	210
		Ogito	*Og*	(name)	207
		pligito	*pligo*	‘sheaf’	210
		talegita	*talega*	‘prayer article bag’	210
		trigito	*trigo*	‘wheat’	210
		agwita	*agwa*	‘water’	211
		fragwita	*fragwa*	‘building’	211
		lingwita	*lingwa*	‘tongue’	211
	c. .x_	*blahitu*	*blahu*	‘Christian’	211
		djarrahito	*djarrah*	‘surgeon’	211
		felahito	*felah*	‘Arab peasant’	211
		grahita	*graha*	‘bean’	211
		malahito	*malah*	‘angel’	211
	d. .w_	*Elyawito*	*Elyaw*	(name)	211
		Irmyawito	*Irmyaw*	(name)	211
		Lyawito	*Lyaw*	(name)	207

Appendix B

The following data sets contain all of the examples that we extracted from Fontanella's (1962) article, including the allomorphs [it] (39) and [ik] (40) in simple diminutives, as well as iterated diminutives (41), along with page numbers:

(39)	Context	Diminutive	Base		
a.	.{p, b, m}_	*papito*	*papi*	'daddy'	560
		Albita	*Alba*	(name)	560
		climita	*clima*	'climate'	567
		mamita	*mami*	'mommy'	560
b.	.{d, s, n, ɾ, l}_	*arregladita*	*arreglada*	'fixed, repaired'	563
		Bayardito	*Bayardo*	(name)	560
		caldito	*caldo*	'soup, broth'	563
		cerradita	*cerrada*	'closed'	570
		delgadito	*delgado*	'thin'	560
		enseguidita	*enseguida*	'right away'	561
		mojadito	*mojado*	'wet'	557, 563
		nadita	*nada*	'nothing'	570
		ordenadito	*ordenado*	'organized'	570
		Pedrito	*Pedro*	(name)	560
		pescadito	*pescado*	'fish'	570
		todito	*todo*	'all'	557
		almuercito	*almuerzo*	'lunch'	563
		Beatricita	*Beatriz*	(name)	559
		bracito	*brazo*	'arm'	563
		confiancita	*confianza*	'confidence'	568
		Patricita	*Patricia*	(name)	559
		Alfonsito	*Alfonso*	(name)	560
		atrasito	*atrás*	'behind'	566
		detrasito	*detrás*	'behind'	561
		Gladisita	*Gladis*	(name)	560
		permisito	*permiso*	'pardon'	566
		vasito	*vaso*	'cup, glass'	562
		chinita	*china*	'girl'	564
		hermanito	*hermano*	'brother'	563
		limosnita	*limosna*	'handout'	566
		manito	*mano* (f.)	'hand'	564
		Marinita	*Marina*	(name)	559
		personita	*persona*	'person'	568
		unito	*uno*	'one'	565
		ahorita	*ahora*	'now'	557
		curita	*cura* (m.)	'priest'	566
		arbolito	*árbol*	'tree'	566
		Consuelito	*Consuelo* (f.)	(name)	559
		Julita	*Julia*	(name)	560
		Lolita	*Lola*	(name)	560
c.	.{ɲ, j}_	*niñito*	*niño*	'child'	557
		pequeñito	*pequeño*	'little'	562
		Estrellita	*Estrella*	(name)	560
		Mireyita	*Mireya*	(name)	559
d.	.{k, g, x}_	*Blanquita*	*Blanca*	(name)	560
		cerquita	*cerca*	'near'	557, 569
		poquito	*poco*	'few'	566
		sequito	*seco*	'dry'	566
		alguito	*algo*	'something'	568, 570
		amiguito	*amigo*	'friend'	570
		Huguito	*Hugo*	(name)	559
		cajita	*caja*	'box'	570
		Jorgito	*Jorge*	(name)	560
		m'hijita	*m'hija*	'my daughter'	560, 566
		m'hijito	*m'hijo*	'my son'	560
		ovejita	*oveja*	'sheep'	564

(40)	.t_				
	abiertico	*abierto*	‘open’	566
	Aramintica	*Araminta*	(name)	560
	calientico	*caliente*	‘hot’	557, 564
	completica	*completa*	‘complete’	557
	Cristico	*Cristo*	(name)	564
	enantico	*enantes*	‘recently’	557, 561
	envueltico	*envuelto*	‘wrapped, covered’	557
	exactica	*exacta*	‘exact’	567
	galletica	*galleta*	‘cookie’	557, 566
	guisantico	*guisante*	‘pea’	567
	letrica	*letra*	‘letter’	564
	Martica	*Marta*	(name)	559
	momentico	*momento*	‘moment’	565
	tantica	*tanta*	‘so much’	566
	vetica	*veta*	‘vein, streak’	562

(41)		# of suffixes	Diminutive	Base		
	a.	2	*arribitica*	*arriba*	‘above’	561
			bajitico	*bajo*	‘short’	561
			bellitico	*bello*	‘beautiful’	563
			cerquitica	*cerca*	‘near’	561, 569
			chiquitico/-a	*chico/-a*	‘small’	558, 568
			delgaditica	*delgada*	‘thin’	568
			estrechitico/-a	*estrecho/-a*	‘narrow’	561, 568
			finitico	*fino*	‘fine’	561
			fresquitico	*fresco*	‘cool’	569
			pasitico	*despacio*	‘slowly’	569
			poquitico	*poco*	‘few’	561
			seguiditico	*seguido*	‘one after another’	569
			sorbitico	*sorbo*	‘mouthful’	563
			toditica	*toda*	‘all’	568
			trisitico	*tris*	‘a tiny bit’	568
	b.	3	*cortiquitica*	*corta*	‘short’	558, 561, 568
	c.	4	*chiquitiquitico*	*chico*	‘small’	558
			toditiquitica	*toda*	‘all’	568
	d.	5	*cortiquitiquitico*	*corto*	‘short’	558

Notes

[1] We use the term Judeo-Spanish to denote those varieties of Spanish that have been spoken by the descendants of the Sephardic Jews, or Sephardim, who were forced to leave Spain by the edict of expulsion of King Ferdinand and Queen Isabella in 1492. The Sephardim who resettled in North Africa, Turkey, Greece, and the Balkans have retained many archaic linguistic features from Old Spanish and other Ibero-Romance languages spoken at the time of the expulsion, but internal change and contact with other languages have also produced linguistic innovations. For background on Judeo-Spanish and description of its linguistic characteristics and cross-dialectal variation, see Quintana (2006), Bunis (2008, 2011), and Bradley (2022).

[2] Throughout this article, we use orthographic forms to present linguistic examples, sometimes with transcriptions in modern IPA. Following the standard romanized orthography proposed by Moshe Shaul (1979) in the inaugural issue of *Aki Yerushalayim*, our JS examples show the following grapheme-phoneme correspondences: <*dj*> = /ʤ/; <*gw*> = /gʷ/; <*h*> = /x/; <*j*> = /ʒ/; <*k*> = /k/; <*ny*> = /n.j/, or /ɲ/ in some varieties; intervocalic <*rr*>, word-intial <*r*> = /r/, or /ɾ/ in some varieties; non-word-initial <*r*> = /ɾ/; <*sh*> = /ʃ/; <*v*> = /v/; <*w*> = /w/; <*y*> = /j/; and <*z*> = /z/. In CoS, <*b*>, <*v*> = /b/; <*z*> = /s/; before <*i,e*>, <*c*> = /s/, <*g*> = /x/, <*gu*> = /g/, <*gü*> = /gʷ/ <*qu*> = /k/; before <*a,o,u*>, <*c*> = /k/, <*g*> = /g/; <*h*> is silent; <*j*> = /x/; <*ñ*> = /ɲ/; intervocalic <*rr*>, word-intial <*r*> = /r/; non-word-initial <*r*> = /ɾ/; <*x*> = /ks/; <*y*>, <*ll*> = /ʝ/; and <*z*> = /s/. The same correspondences of CoS apply in CaS, except that /θ/ corresponds to <*z*> and to <*c*> before <*i,e*> and that <*ll*> = /ʎ/ (at least for some older speakers).

[3] As a reviewer points out in relation to diminutive suffixes, it is worth mentioning that *-ito/a*, *-illo/a*, and *-ico/a* and their longer allomorphs *-(e)cito/a*, *-(e)cillo/a*, and *-(e)cico/a* display the same distribution. Furthermore, the suffix *-zuelo/a* alternates with *-uelo/a*, whereby the former is attached to consonant-final or *e*-final vowel stems, e.g., *ladrónzuelo* ‘petty thief’ < *ladrón* ‘thief’, while the latter is attached to stems with the *-o/a* terminal element, e.g., *muchachuelo* ‘youngster’ < *muchacho* ‘boy’; in fact, it is the same distribution of *-ito/a*, *-cito/a*. We do not attempt to account for the distribution of the longer allomorphs in the present study, whose focus is on consonantal place dissimilation involving *-ito/a* and *-ico/a* (*-iko/a*).

[4] The article was re-posted on https://bloglenguaencolombia.blogspot.com/2018/11/diminutivo.html (accessed on 12 December 2024). We translate the most relevant part of the article here. The examples in (10) appear in the final paragraph:“Well, in *caleñol* (as in Caribbean Spanish) we have added a rule to the common use of diminutives: if the word ends in *-t*, *-tr* or *-tl* + vowel, we use *-ico* or *-ica*, instead of *-ito* or *-ita*, as in the rest of the Spanish-speaking world. For example, *zapato* ‘shoe’ ends in *-to*, and

that's why we say *zapatico; aguardiente* 'moonshine' ends in *-te*, and that's why *aguardientico*; *gato* 'cat' ends in *-to*, and that's why *gatico* and not *gatito; otro* 'other' ends in *-tro*, and that's why *otrico* and not *otrito.* A small *atlas* 'atlas' would be an *atlicas*.For a woman whose name is *Marta*, we say *Martica* and not *Martita*: because *Marta* ends in *-ta.* And that's why we say *momentico* and not *momentito: momento* 'moment' ends in *-to.* The other day we were talking about people who say *llamó estica* 'this one called' to refer to a woman whose name they don't remember. This allows us to explain why we say *estica* and not *estita*.The most interesting thing is that we use this rule to make a diminutive of a diminutive. From *ahora* 'now' we make *ahorita*, which is less time than *ahora.* But if we want to express even less time than *ahorita* we use the rule, because *ahorita* ends in *-ta*, and the word turns out to be *ahoritica.* Likewise, *poquito* is less than *poco* 'small' and *poquitico* much less than *poquito*.The only problem is that *-ica* (or *-ico*) cannot be iterated, but *-ita* can be repeated as many times as we want. So, we say *ahoritititititica* if we want to exaggerate the tiny amount of time, but we would never say *ahoritikikikikikica* (Here I use *k* to indicate the sound [k] in the hypothetical example). [our translation—CJL and TGB]"Díaz Collazos purports to describe diminutive formation in the *caleño* variety spoken in Cali, Colombia. However, the failure of *-ico/a* to iterate (10b) is likely a more general feature of CoS, as well as other dissimilating varieties in Costa Rica, Venezuela, Cuba, and eastern and southern Spain. We leave it to future research to determine the geographical extent of the *caleñol* pattern.

[5] In CaS *bebito* < *bebé* 'baby' (11a), the base lacks an unstressed terminal element. Deletion of base-final stressed [é] is exceptional in this case, as base-final stressed vowels usually condition the allomorph *-cito/a*, e.g., *cafecito* < *café* 'coffee', *mamacita* < *mamá* 'mom'. JS personal names ending in stressed [á] (37d) (Appendix A) show variation between maintenance or deletion of the base-final vowel, e.g., *Djohaiko* < *Djohá*, vs. *Leika* < *Leá* (Bunis 2003, p. 208).

[6] The goal of an OT analysis is to explain why one representation is mapped onto another representation. Different mappings are evaluated against a partially ranked set of constraints. Output candidates are evaluated by their violations of the constraints whose titles appear along the top row of an OT tableau, proceeding from left to right. The optimal mapping satisfies the highest-ranking constraints. In the tableaux of the present study, the output [base+DIM+TE] appears in the first cell of the top row, and relevant output candidates of the corresponding diminutive appear within the same column in the rows beneath, each denoted by a separate letter (a), (b), etc. Crucial constraint rankings are indicated by a solid line between two columns, while a broken line means that the ranking between the two adjacent constraints is indeterminate. When a diminutive output candidate violates a constraint, an asterisk appears in the corresponding cell beneath that constraint. As indicated by an exclamation point after the relevant asterisks, violations of higher-ranking constraints are fatal and eliminate candidates from the competition for optimality. The single remaining candidate that incurs no fatal violations of the higher-ranking constraints is the winner, as indicated by the manicule '☞'.

[7] *blahu* 'Christian' and other such JS words are attested in varieties that have an independent process of unstressed mid vowel raising, which we do not analyze here. In these words, final [u] corresponds to the morphological TE [o] of other Hispano-Romance varieties.

[8] Bermúdez-Otero (2006, 2007, 2013) does not attempt to account for the longer DIM allomorph *-ecita* in *puertecita*, which for many CaS speakers is the optimal form instead of *puertita*. Nevertheless, the argument for ordering stem-level diphthongization before word-level diminutivization still holds.

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