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When Small Words Collide: Morphological Reduction and Phonological Compensation in Old Leonese Contractions

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Introduction

The phenomenon of the grammaticalization of lexical words into function words has received much attention in various fields of linguistics (Hopper & Traugott 1993, among numerous works by these and many other authors). While grammaticalization usually results in the phonological reduction of the words in question, this reduction does not usually result in the loss of semantic recoverability. However, function words are inherently phonologically short, so any reduction resulting from grammaticalization would incur a proportionally greater loss to the surface realization of their meaning. An example of such grammaticalization comes from Medieval Leonese, and a close analysis of this data suggests that as function words are grammaticalized and undergo phonological reduction, individual features take on a correspondingly greater role in distinguishing meaning that was previously represented by entire segments.*

The following section presents the Leonese preposition + article contraction data that motivate the theoretical claims of the article; subsequent sections lay out our formal assumptions and present tableaux and explications of the varying success of the competing candidates across related forms and dialects; the final section offers a summary and concluding remarks and discusses avenues for further research.

Leonese Preposition + Article Combinations and Grammaticalization

Tuten (2003) discusses the contraction of preposition + article sequences into single words in various regions of Medieval Spain, and we limit our presentation of the data to

the Modern Castilian standard, for comparison and familiarity sake, as well as Leonese, the focus of our attention, which we have decomposed for expository purposes into palatalizing and nonpalatalizing varieties.¹ (Data adapted from Tuten 2003: 115-117, based mainly on Menéndez-Pidal 1964: 330-339. Note that *nn* = [ɲ]; *ll* = [ʎ]².)

Table 1: Castilian
(Burgos and areas to the south); also Modern Spanish standard

	basic forms	<i>por</i> + article	<i>de</i> + article	<i>a</i> + article	<i>con</i> + article	<i>en</i> + article
m. sg.	<i>el</i>	<i>por el</i>	<i>del</i>	<i>al</i>	<i>con el</i>	<i>en el</i>
f. sg.	<i>la (el)</i>	<i>por la</i>	<i>de la</i>	<i>a la</i>	<i>con la</i>	<i>en la</i>
m. pl.	<i>los</i>	<i>por los</i>	<i>de los</i>	<i>a los</i>	<i>con los</i>	<i>en los</i>
f. pl.	<i>las</i>	<i>por las</i>	<i>de las</i>	<i>a las</i>	<i>con las</i>	<i>en las</i>

Table 2: “Palatalizing” Leonese
(also Staaff 1907: 253-258)

	basic forms	<i>por</i> + article	<i>de</i> + article	<i>a</i> + article	<i>con</i> + article	<i>en</i> + article
m. sg.	<i>llo</i>	<i>pollo</i>	<i>del</i>	<i>al</i>	<i>conno, collo</i>	<i>enno, enne</i>
f. sg.	<i>lla</i>	<i>polla</i>	<i>de la</i>	<i>a la</i>	<i>conna, colla</i>	<i>enna</i>
m. pl.	<i>llos</i>	<i>pollos</i>	<i>de los</i>	<i>a los</i>	<i>connos, collos</i>	<i>ennos</i>
f. pl.	<i>llas</i>	<i>pollas</i>	<i>de las</i>	<i>a las</i>	<i>connas, collas</i>	<i>ennas</i>

Table 3: “Nonpalatalizing” Leonese
(also Staaff 1907: 253-258)

	basic forms	<i>por</i> + article	<i>de</i> + article	<i>a</i> + article	<i>con</i> + article	<i>en</i> + article
m. sg.	<i>elo, lo</i>	<i>polo</i>	<i>del</i>	<i>al</i>	<i>cono</i>	<i>eno, ene, no</i>
f. sg.	<i>ela</i>	<i>pola</i>	<i>de la</i>	<i>a la</i>	<i>cona,</i>	<i>ena, na</i>
m. pl.	<i>elos</i>	<i>polos</i>	<i>de los</i>	<i>a los</i>	<i>conos</i>	<i>enos, nos</i>
f. pl.	<i>elas</i>	<i>polas</i>	<i>de las</i>	<i>a las</i>	<i>conas</i>	<i>enas, nas</i>

In the contractions listed above, the preposition and article form a single word which is in some instances phonologically distinct from either of its component words; for example, despite the existence of the contraction *connas* (Table 2) there exists no preposition *conn* and no article *nnas* or *as*.

The data presented by Tuten represents a unique case of grammaticalization of words that are already functional into smaller, morphemic units. However, the process of

grammaticalization typically results in phonological reduction, which threatens the surface representation of words that are already phonologically short. In the following discussion, we show how the burden of morphological representation shifts from the segmental to the featural level in order to prevent the complete loss of surface forms that are already short.

Theoretical Preliminaries/Constraints

The phonological changes that resulted from preposition + article contraction suggest that the underlying forms of these contractions violated certain highly-ranked markedness constraints which mandated phonological simplification of the surface form. These markedness constraints operated broadly over Medieval Leonese Spanish:

1) Markedness constraints

*#l: no word initial [l]: initial /- tends to palatalize in Leonese (Menéndez-Pidal 1962: 64-68).

*#nn: no word-initial palatal [ɲ]: word-initial palatal [ɲ] is rare in modern Spanish, appearing much less frequently than palatal [ʎ] or non-palatal [n].

*PAL: Palatal consonants are marked (Baković 2001; Zubritskaya 1997).

SYLCON: Sonority may not rise across a syllable boundary. (Hooper 1976, Murray & Vennemann 1983, Landau 1997, Alderete 1996, Gouskova 2001)

In the case of grammaticalization of “little words” to bound morphemes presented here, phonological changes that might satisfy the above markedness constraints threaten the adequate representation of meaning, since the deletion or alteration of a single segment severely reduces the surface forms of morphemes that are already quite small. Thus, general faithfulness constraints, shown in (2), are required to ensure that meaningful segments be present in the surface form. Further, the surface representation of

meaning may be partially preserved by more specific faithfulness constraints, shown in (3), that favor the preservation of individual features that survive in the surface form to represent meaning.

2) General faithfulness constraints

MAX: Input segments must have output correspondents. (McCarthy 1995)

DEP: Output segments must have input correspondents. (McCarthy 1995)

COALESCE: No element of the output has multiple correspondents in the input.
(McCarthy and Prince 1995, “UNIFORMITY”.)

CONTIGSTEM: Stem morphemes contiguous in the input must be contiguous in the output. (“No epenthesis between stems.”)

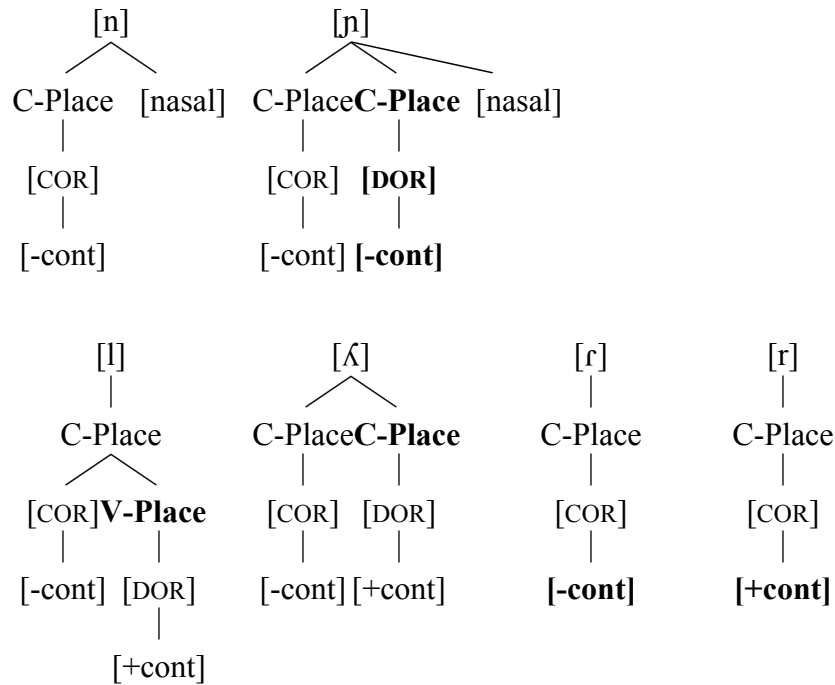
3) Specific faithfulness constraints

MAX-FMS: The input features of a monosegmental morpheme must be preserved in the output. (Adapted from Casali 1997.)

MAX-[C-place]: C-Place nodes in the input must be present in the output. (See Lombardi 2001 for Max-F constraints.)

The features relevant to the analysis here are the number of C-Place nodes and the presence or absence of a [DOR] place feature, both of which distinguish palatal from alveolar laterals and nasals. The manner feature [continuant] distinguishes rhotics, while the [nasal] feature distinguishes between palatal laterals and palatal nasals. (Features that distinguish pairs of segments are indicated in bold.)

Figure 1: Structural representation of nasals, laterals and rhotics.



By focusing on the featural level, faithfulness constraints such as MAX-FMS and MAX-[C-Place] may preserve some surface representation of a meaningful segment, even when the segment itself is deleted. In addition, the selection of the morpheme to be preserved may be determined based upon its function, as formalized in the following constraint:

- 4) MAX-FMORPHSYN: The input features of syntactic morphemes must be preserved in the output.

This constraint is consistent with the fact that functional morphemes are often shorter than lexical morphemes, and therefore subject to a proportionately greater loss at the level of phonological representation. In the data presented here, the gender (*o/a*) and number (*s*) markings found on the definite articles are considered “syntactic” morphemes, in that they link constituents within a clause by marking agreement between nouns and

their articles. By this definition, the prepositions listed above are also syntactic, since they act like case markers (Penny 1991: 194), assigning theta-roles to DPs and NPs, syntactically linking them with a verb in the clause. In contrast, the definiteness morpheme (*l*) (Harris 1991) of the articles is not syntactic, since it does not link syntactic constituents, but pragmatic, serving only a discourse function of marking specificity. The distinction between syntactic versus nonsyntactic morphemes plays a crucial role in the selection of the optimal forms, as explained in the following section.

Tableaux and explications

The constraint ranking proposed for “Palatalizing Leonese” (PL) is as follows:

*#l, *#nn, SYLCON, *ContigMorph, MAX-[C-Place] »

MAX-FSYNMORPH, MAX-FMS, COALESCE » DEP » *PAL

Although the proposed constraints are ranked within groups, two constraint relations uniquely distinguish the PL dialect. First, the dominance of MAX-[C-Place] » *PAL determines that, all other things being equal, palatalization, though marked, is permitted if it preserves a C-Place node that is deleted in all non-palatalized candidates. Secondly, the lack of a relative ranking between MAX-FSYNMORPH and MAX-FMS gives equal priority to the preservation of the features of syntactic morphemes and those of all monosegmental morphemes, syntactic or not. The effects of both of these relationships can be seen in the output form of the contraction /con+la/.³

Tableau 1: *con + la > colla, conna*

/con + la/	*#l	*#nn	SYLCON	CONTIG STEM	MAX- [C-Place]	MAX-F SYNMORPH	MAX-FMS	COALESCE	DEP	*PAL
conla			*!							
conela				*!					*	
cona					*!		*	*		
cola					*!	*	*	*		
colla [ʎ]						*		*		*
conna [ɲ]							*	*		*

When *con* and *la* come together, the abutting segments violate syllable contact restrictions, ruling out [conla]. All other candidates avoid this violation, either by epenthesis ([conela]), loss ([cona], [cola]), or coalescence-cum-palatalization ([colla], [conna]). The latter are evaluated as optimal because they violate no high-ranking constraints, and the palatalized output best preserves the input features of both the syntactic morpheme *con* and the definiteness morpheme *l*. [colla] violates MAX-FSYNMORPH, since [nasal] is part of the syntactic (case-marking) preposition, but does not violate MAX-FMS, since the features of the monosegmental definiteness morpheme *l* are present in surface // [ʎ]. [conna] violates MAX-FMS, since the [+cont] feature of *l* is lost, but does not violate MAX-FSYNMORPH, since the [nasal] feature of /n/, part of the syntactic (case-marking) *con*, remains intact. Figures 2 and 3 illustrate this.⁴

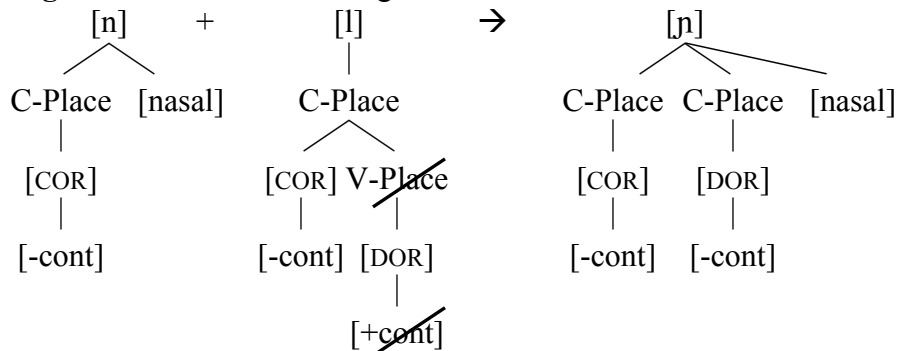
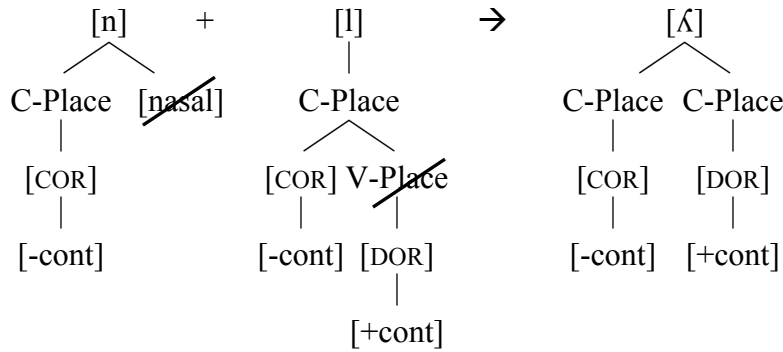
Figure 2: Structural blending of *con + la > conna*

Figure 3: Structural blending of *con* + *la* > *colla*



Since MAX-FSYNMORPH and MAX-FMS are unranked relative to each other, and since *colla* and *conna* each violates only one of these constraints while violating none of the higher-ranked constraints, either output is possible. (For this approach to variation, see Antilla 2002.) These forms are also preferred to [cona] and [cola], because *cona* and *cola* fail to preserve the C-Place of both the preposition and article consonants, which *conna* and *colla* do, due to the low ranking of *PAL.⁵

Given the *conna*~*colla* variation, it is reasonable to expect similar patterns for *en* + *la* and /por+la/, yet each of these contractions has only one optimal form. First, *en* + *la* is expected to yield both [enna]~[ella], yet only the former is grammatical. We propose that the underlying form of the preposition *en* in the preposition+article contractions is not /en/, but /n/ (a hypothesis which receives further support from the Non-Palatalizing dialect, which shows *na*).

Tableau 2: $(e)n + la > enna$

/n+ la/	*#l	*#nn	SYLCON	CONTIG STEM	MAX- [C-Place]	MAX-F SYNMORPH	MAX-FMS	COALESCE	DEP	*PAL
nla			*!							
nela				*!					*	
na					*!		*	*		
la	*!				*!	*	*	*		
nna		*!					*	*		*
lla						*(!)	*	*		*
ella						*(!)	*	*	*	*
 enna							*	*	*	*

The realization of /n+la/ as [nla] violates SYLCON, which the other candidates avoid, through epenthesis ([nela]), deletion ([na], [la]), or coalescence via palatalization ([nna], [lla]). Candidate [lla] is certainly less optimal than [nna], since it violates both MAX-FSYNMORPH and MAX-FMS, by deleting the [nasal] feature of [n], which is both a syntactic and monosegmental morpheme; likewise for [ella]. Although [nna] avoids these violations, it violates the highly-ranked *#nn, which is resolved via word-initial epenthesis, yielding the winning candidate *enna*.

Moving on to /por+la/, we see that despite the fact that [r] and [l] are both liquids, the consonant sequence in candidate [porla] in Tableau 3 below is marked. Note that in Figure 1, [l] is characterized by a V-Place articulation that is [+cont], characteristics that contribute to sonority and which [r] lacks. Therefore, contracting *por + la* results in a rise of sonority across a syllable boundary, violating SYLCON.

Tableau 3: *por + la > polla*

/por + la/	*#l	*#nn	SYLCON	CONTIG STEM	MAX- [C-Place]	MAX-F SYNMORPH	MAX-FMS	COALESCE	DEP	*PAL
porla			*!							
porela				*!					*	
pora					*!		*	*		
pola					*!	*		*		
pora					*!	*	*	*		
↵polla [ʎ]								*		*

The remaining candidates avoid this violation, again by epenthesis ([porela]), loss ([pola], [pora]), or coalescence via palatalization ([polla]), and this latter form wins, since it alone preserves the C-Place of each input segment (Figure 4) without violating any of the highly-ranked constraints. Given the *conna~colla* alternation observed for [con+la], one might expect an analogous alternation of [porra]~[polla] for *por + la*. However, Figure 5 illustrates that *colla:conna :: polla:porra* is not an accurate analogy: *ll* and *nn* are palatal sounds, characterized by dual C-Place articulations, while *rr* is simply the [+cont] correlate of the singly-articulated tap *r*:

Figure 4: Structural blending of *por + la > polla*

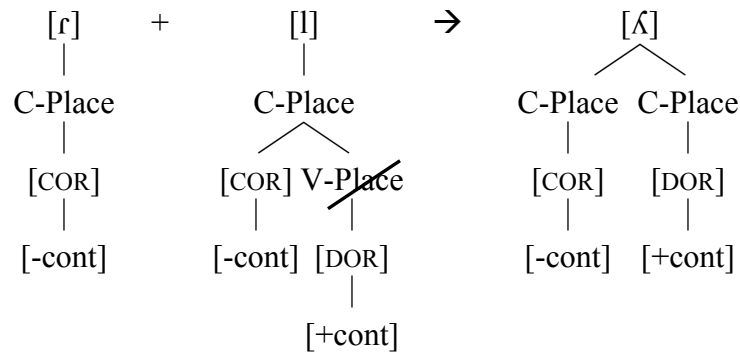
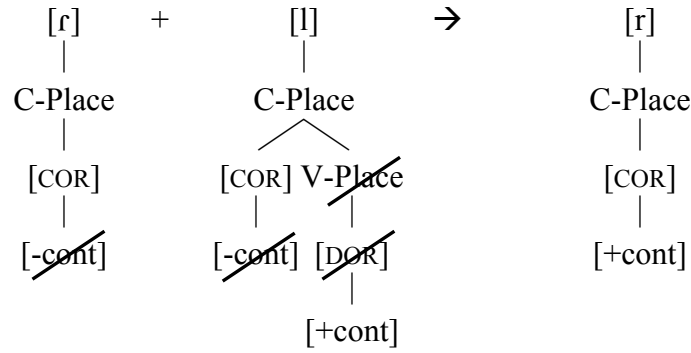


Figure 5: Structural blending of *por + la* > **porra* disallowed



The remaining contractions, *de + la* and *a + la*, are unproblematic, as there is no violation of SYLCON among the plausible candidates:⁶

Tableau 4: *de + la* > *de la*

/de+ la/	*#	*#nn	SYLCON	CONTIG STEM	MAX- [C-Place]	MAX-F SYNMORPH	MAX-FMS	COALESCE	DEP	*PAL
☞ dela										
della										*!

Tableau 5: *a + la* > *a la*

/a+ la/	*#	*#nn	SYLCON	CONTIG STEM	MAX- [C-Place]	MAX-F SYNMORPH	MAX-FMS	COALESCE	DEP	*PAL
☞ ala										
alla										*!

Finally, the surface form of the bare article itself remains to be explained, given that its underlying form is posited as /la/.

Tableau 6: *la* > *lla*

/la/	*#l	*#nn	SYLCON	CONTIG STEM	MAX- [C-Place]	MAX-F SYNMORPH	MAX-FMS	COALESCE	DEP	*PAL
la	*!									
↵ lla										*
a					*!	*	*			
ela									*!	
ella									*!	*

The form *la* is ruled out by top-ranking **#l*. Although [ela] and [ella] avoid this violation via epenthesis, this results in violations of DEP not incurred by [lla].⁷ The only remaining competitor, [a], is ruled out by MAX-FMS, since it deletes the entire monosegmental definiteness morpheme *l*.

“Non-Palatalizing” Leonese

The constraints operating in “Non-Palatalizing” Leonese (NPL) are identical to those operating in PL; however, the ranking of the NPL constraints differs enough from that of the PL constraints to yield different output forms.

*#l, *#nn, SYLCON, *ContigMorph, *PAL, MAX-FSYNMORPH* »

MAX-FMS, MAX-[C-Place], COALESCE » DEP

The most obvious difference is the undominated ranking of **PAL*, which disallows the palatalization of any segment, even when palatalization would otherwise preserve a specific feature. The second unique characteristic of NPL is that it ranks MAX-FSYNMORPH above MAX-FMS, which, all other things being equal, allows the (potentially complete) deletion of a non-syntactic morpheme’s features, if such deletion

results in an output form that (i) satisfies all higher-ranked markedness constraints and (ii) preserves the features of a syntactic morpheme, as is illustrated in Tableau 7.⁸

Tableau 7: *con + la > cona*

/con + la/	*#l	*#nn	SYLCON	CONTIG STEM	*PAL	MAX-F SYNMORPH	MAX-FMS	MAX- [C-Place]	COALESCE	DEP
conla			*!							
conela				*!						*
e cona							*	*	*	
cola						*!		*	*	
colla					*!	*!			*	
conna					*!				*	

As in Palatalizing Leonese, the contraction of *con+la* results in a violation of SYLCON, which is resolved in the remaining candidates via epenthesis ([conela]), deletion ([cona], [cola]), and coalescence resulting in palatalization ([colla], [conna]). The high ranking of *PAL in this dialect rules out the palatalized forms, while the high ranking of *CONTIGMORPH rules out *conela*. The remaining candidates are [cona] and [cola]. Candidate [cona] is preferred to [cola] because the latter deletes the [nasal] feature from the syntactic morpheme *con*, fatally violating MAX-FSYNMORPH.

Figure 6: Structural simplification of *con + la > cona*

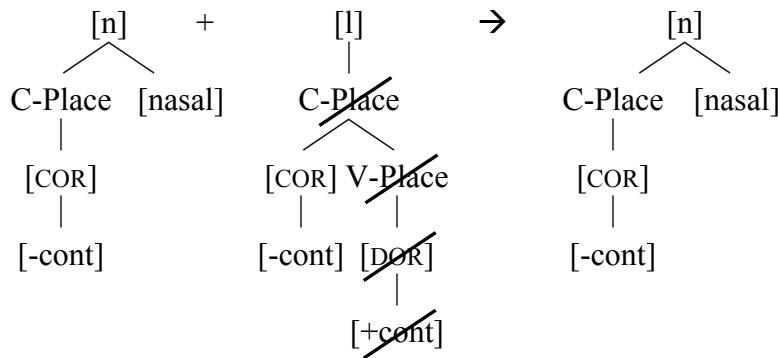
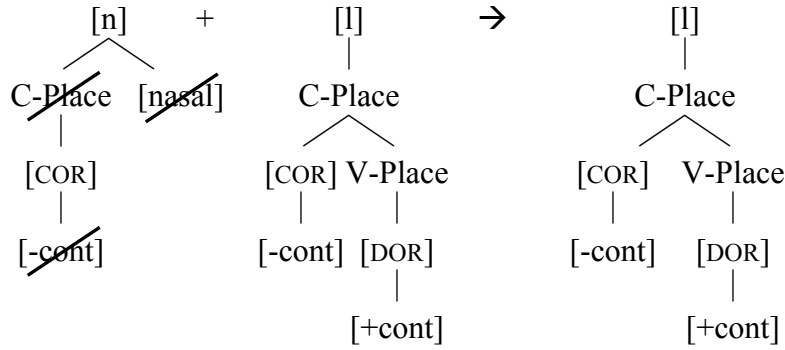


Figure 7: Structural simplification of *con + la* > **cola* disallowed



The winning candidate for the output form of *en+la* is selected exactly as that of the output form for *con+la*.⁹

Tableau 8: *en + la*

/en + la/	*#l	*#nn	SYLCON	CONTIG STEM	*PAL	MAX-F SYNMORPH	MAX-FMS	MAX- [C-Place]	COALESCE	DEP
enla			*!							
enela				*!						*
ena							*	*	*	
ela						*!		*	*	
ella					*!	*!			*	
enna					*!		*		*	

For the contraction of *por+la*, it is reasonable to predict that contraction will yield **pora*, since both *con+la* and *en+la* yield simplified *cona* and *ena~na*, where SYLCON is resolved by deleting the definiteness morpheme. However, the optimal form is in fact *pola*. Recall that in Palatalizing Leoneese, the maximum number of features is preserved via the coalescence that results in palatalization, an option not available in NPL due to the undominated ranking of *PAL. However, there is no undominated constraint prohibiting other types of coalescence. The realization of the [r+l] sequence as [l], though different

from palatalization, still constitutes a case of coalescence, since [l] preserves all of the input features of [r] (Figure 8 and Tableau 10):

Figure 8: Structural blending of *por + la* > *pola*

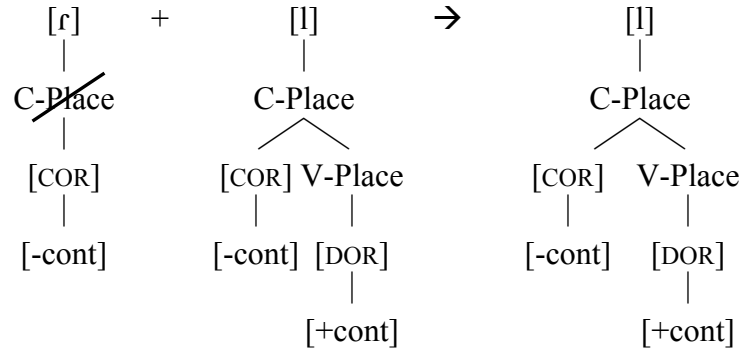
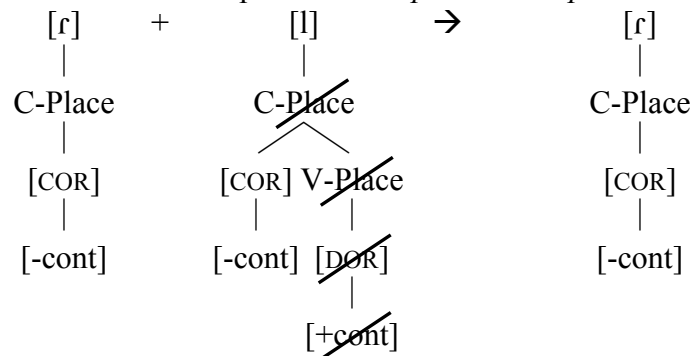


Tableau 10: *por + la* > *pola*

/por+ la/	*#	*#nn	SYLCON	CONTIG STEM	*PAL	MAX-F SYNMORPH	MAX-FMS	MAX- [C-Place]	COALESCE	DEP
porla			*!							
porela				*!						*
☞pola								*		
pora							*!	*		
polla					*!					
pora						*!		*		

Note that although realizing /r/ as [l] constitutes an additive process, realizing /l/ as [r] is a subtractive one, since [l] loses both its [DOR] and its [+cont] features (Figure 9), making [pora] suboptimal to *pola*, which preserves all of the input features:

Figure 9: Structural simplification of *por + la* > **pora* disallowed



The realization of the contractions /de+la/ and /a+la/ in NPL as *dela* and *ala* is just as in PL, since, as in PL, the fully faithful forms do not incur any violation of SYLCON. Therefore, the analyses of these forms given in Tableaux 4 and 5 apply also to these forms in NP Leonese, and the fact that the constraints are ranked differently between the dialects has no impact on the output forms for these two contractions.

Finally, the realization of the bare article form /la/ as *ela* in this dialect is due to the dominance of *PAL »DEP.

Tableau 11: *la > ela*

/la/	*#l	*#nn	SYLCON	CONTIG STEM	*PAL	MAX-F- SYNMORPH	MAX-FMS	MAX- [C-Place]	COALESCE	DEP
la	*!									
lla					*!					
a						*!	*!	*!		
ela										*
ella					*!					*

Conclusions and open questions

The analysis presented above accounts for the preposition+article contractions attested in Medieval Leonese. More importantly, it shows a systematic relationship between morphology and phonology: the impetus from grammaticalization and markedness constraints to reduce the phonological form of function words which are already short conflicts with the need for sufficient surface representation to ensure recoverability of meaning. This threat to recoverability is avoided by associating meaning not with individual segments, but with individual features, which allows the phonological shortening demanded by grammaticalization and markedness, while still preserving sufficient phonological input to recover meaning (Figure 10).

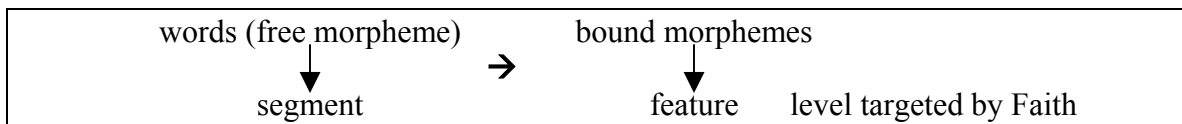


Figure 10: Model of phonological compensation for morphological reduction

If this solution resolved the tension between grammaticalization and preservation of meaning in Medieval Leonese, why did it not survive? Why didn't the contracted forms of the prepositions become productive morphemes, combining with other word classes, such as bare nouns? As Tuten (2003) notes, speakers of various dialects of Spanish (including Leonese) began to settle in Castile in the 9th Century. The variety of dialects resulted in a koiné in which no contraction occurred, and which later became the standard (Table 1). Although the constraint rankings particular to other Medieval Spanish dialects have yet to be analyzed, Tuten (115-117) lists dialects in which little or no contraction occurred, and suggests that these analytical and “transparent forms” were easiest to for L1 acquirers in the multidialectal setting of Castile to acquire. A theoretical model of this acquisition process has yet to be formulated.

Due to the interference from competing dialects, it is impossible to tell how the Leonese morphological and phonological shortening would have progressed, and whether either of these processes would have spread to other classes of words and other types of word formation. Nonetheless, the data from the contraction of “small words” in Medieval Leonese provides insight into the relationship between the morpheme length and featural function.

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¹ Galician/Portuguese, Aragonese and La Riojan show varying intermediate levels of contraction, and our study of these is ongoing. Leonese was selected for discussion because of its closer historical ties to Castilian, the national standard, being one of the strongest contributors to the medieval koiné that emerged in Castile.

² Interpretation of double *nn* and *ll* is somewhat problematical. Tuten is silent on what the double letter represents, and we interpret them as palatals. Menendez-Pidal's *El dialecto leonés* seems to support this, though direct, clear statements are lacking -- when mentioned directly, he refers to assimilation (*-n + l- > nn; -r, -s se asimilan a la l- del artículo, o se pierde*). Statements about *ll* seem clearer. For instance, there are data cited like *pagayos* (*pegarles*), *potcho* (*pollo < por lo*) (pp. 87-88; *potchas* also, as well as *cometcho < comello < comerlo*, p. 94, and *dache < da-le < darle*, in *Lena*, p. 127; additional data cited throughout.) The forms with palatal *y* or affricate *tch* plausibly and straightforwardly would result from the palatal lateral. For initial position, while

palatalization of *l-* to *ll-* is abundantly attested, *n-* > *nn-* > *ñ* also occurs, *ño*, *ñunca*, etc. (Menéndez-Pidal, p. 64, fn. 96; and Zamora Vicente 1967, 130-131).

³ We assume for all contractions the underlying form of *la*. Although it is reasonable to posit an underlying form of *lla*, given that this is the “bare” article form (Table 2), such an analysis leaves unexplained its realization as *la* in contraction with *de* and *a*; likewise, we employ the feminine singular article as an exemplar throughout our analysis as all other article forms (with some minor exceptions for the masculine singular, ignored here) exhibit the same contraction patterns.

⁴ We assume that any identically valued feature in the input is sufficiently represented by a single occurrence in the output, perhaps as an instance of OCP-induced merger.

⁵ Bradley (2007) has pursued a similar line of argumentation in his gestural overlap account of Norwegian clusters, applying Browman and Goldstein’s (1989) Articulatory Phonology to a Dispersion-Theoretic approach to coalescence of apicoalveolar /*r*/ with laminals /*t*, *s*, *n*, *l*/, which are realized as [t̟s̟, ɲ, l̟], where blending of adjacent tongue gestures obtains. In both this case and the case of coalescence-cum-palatalization in Leonese, recoverability is ensured, since, though distinct from underlying form, the surface form allows the listener to discern the features of the input segments; this is crucial for Leonese, since the input segments belong to different, and syntactic, morphemes.

⁶ We assume that *de la* and *a la* are phonologically contracted, and orthographic variants of *dela* and *ala*, which are amply attested.

⁷ While a constraint prohibiting word-initial *l* may seem odd, especially when satisfaction of this constraint is carried out via the marked process of palatalization, consider the

structure of palatal [ʎ] versus non-palatal [l] in Figure 1. The fact that [ʎ] is characterized by two C-Places, while [l] is characterized by a C-Place and a V-Place, suggests that [l] is both more sonorous and more “vowel-like” than [ʎ], making the [ʎ] a better choice for a syllable onset, as it yields a steeper sonority cline.

⁸ We again assume underlying form of *la*. Although it is reasonable to posit an underlying form of /ela/, given that this is the “bare” article form (Table 3), such an analysis leaves unexplained the absence of forms such as **conela*, **porela*, etc.

⁹ We posit that the alternation between the surface forms of *ena* and *na* (Table 3) is due to differing underlying forms of the preposition *en*, /en/ and /n/, the latter of which represents a more advanced stage of the grammaticalization of the preposition *en*, as it occurs only as a bound form in these contractions.