Allomorph selection in Piedmontese verbs: between syntax and phonology.

Introduction. Piedmontese (Gallo-Italian Romance; PIEM) verbs display alternations involving either the root, or the inflectional markers, or both. Two sample forms, 3sg and 1pl are shown in (1):¹

(1)			1 st conj		2 nd conj		3 rd conj		
	pers	num	buté	'to put'	sente	'to listen'	finì	'to finish'	
a	3	sg	but-a	[<u>by</u> ta]	sent	[seŋt]	finiss	[fi <u>nis</u>]	PresInd
b	3	sg	but-av-a	[by <u>ta</u> va]	sent-ì-a	[seŋtia]	fin-ì-a	[fi <u>ni</u> a]	ImpInd
c	3	sg	but-a	[<u>by</u> ta]	sent-a	[<u>seŋ</u> ta]	finiss-a	[fi <u>ni</u> sa]	PresSubj
d	1	pl	but-oma	[by <u>tu</u> ma]	sent-oma	[seŋ <u>tu</u> ma]	fini-oma	[fi <u>nju</u> ma]	PresInd
e	1	pl	but-av-o	[by <u>ta</u> vu]	sent-ì-o	[seŋ <u>ti</u> u]	fin-ì-o	[fi <u>ni</u> u]	ImpInd
f	1	pl	but-o	[<u>by</u> tu]	sent-o	[sentu]	finiss-o	[fi <u>ni</u> su]	PresSubj

The 3sg form displays allomorphy across conjugations: -a (1st conj) vs. zero (2nd and 3rd conj). This alternation is restricted to PresInd (1a), as ImpInd and PresSubj display a single ending -a (1b,c). While both PresInd and PresSubj seem to select for no overt exponents, ImpInd has two distinct realizations: on the one hand, -av- appears in the 1st conj; on the other, -i- appears in both the 2nd and the 3rd conjugations. As for plural forms, 1pl has two allomorphs that alternate within each conjugation: the opposition -oma vs. -o reflects the opposition PresInd vs. ImpInd/PresSubj. Note that -oma is stressed, whereas -o is not. Finally, the verb fini 'to finish' possesses three allomorphs: fin-, fini- and finiss-. Finiss- is stressed, whereas the other two are unstressed.

Proposal. In this paper, I aim at participating in the debate on the nature of PF (see Gribanova & Shih eds 2017, Scheer To appear for the most recent discussions) through a Distributed Morphology (Halle & Marantz 1993, Embick 2010) analysis of data in (1). More precisely, I claim that the allomorphic alternations in (1) result from a locality restriction that involves the terminal syntactic nodes. Allomorphy is triggered only when the target is linearly adjacent to the trigger and no intervening realized item appears (Embick 2010). Allomorph selection occurs exclusively in syntax: those alternations that may be predicted solely from phonological principles are not true allomorphy (Kiparsky 1996). Our data offer two examples of such phonological alternations: 1pl and the root of verb *finì* 'to finish'. In both cases, stress plays a crucial role in determining the correct surface form. With Embick (2000, 2010), I assume inflected verb forms have the structure in (3). This structure is turned into a complex head: the terminal nodes are linearized as in (4).

(3) $[Agr [T [Asp [v ROOT]_{vP}]_{AspP}]_{TP}]_{AgrP}$ (4) ROOT + v, Th + TAM + Infl

As by hypothesis, allomorph selection must satisfy locality: thus, the root may trigger allomorphy of inflectional markers iff both v, Th and TAM markers are not realized in the structure. This occurs in 3sg PresInd: roots belonging to the 1^{st} conj select for -a, whereas roots belonging to either the 2^{nd} or the 3rd conj select for zero-morpheme. In contrast, allomorphy is blocked when TAM markers are realized: the suffix of 3sg ImpInd is uniformly -a (5, 6). Note, however, that the root still selects for a particular allomorph: this is the ImpInd exponent, which depends on the conjugation (that is on the lexical affiliation of root to a given inflectional paradigm). The 1st conj selects for -av- (5), whereas the 2^{nd} (and the 3^{rd}) conj select for -i- (6). In the PresSubj, in turn, 3sg does not display allomorphy, yet the root seems to be adjacent to the inflectional marker -a. I argue that, despite appearances, the root is not adjacent to the inflectional marker -a in the PresSubj: a phonetically null exponent that marks PresSubj intervenes between the root and the inflectional marker, and thus prevents allomorphy of 3sg from appearing (3sg PresSubj buta /byt+Ø+a/, senta /sent+Ø+a/, etc.) In other words, the exponent Ø spells out the featural content of the head T. This configuration implies that PresInd must lack T (if T was there, a phonetically null exponent would be spelled out, and allomorphy would be blocked.) Thus, PresSubj and PresInd instantiate two distinct syntactic structures: the latter lacks both AspP and TP (cf. Calabrese's 2015 analysis of Italian irregular perfect and past participle forms as

¹ I adopt the following abbreviations: sg=singular, pl=plural conj=conjugation, pers=person, num=number, PresInd=Present Indicative, PresImp=Present Imperfect, PresSubj=Present Subjunctive. Stressed syllables are underlined. Data are taken from Ricca (2016) and checked with a 90-year-old native speaker from Turin (Italy).

well as Oltra-Massuet & Arregi's 2005 analysis of Spanish and Catalan verbs) (7, 8 below), whereas the former includes the complete picture of projections as in (3).

(5) but-av-a [bytava] 3sg, ImpInd (6) sent-i-a [sentia] 3sg, ImpInd \mathbf{T} $\dot{\mathrm{T}}$ $\dot{\mathbf{T}}$ Agr Agr Asp Asp AspAsp Th ThImpInd $\sqrt{\text{ROOT}}$ ImpInd $\sqrt{\text{ROOT}}$ byt av sent i a a (7) but-a [byta] 3sg, PresInd (8) sent [sent] 3sg, PresInd Agr Agr ThTh $\sqrt{\text{ROOT}}$ ROOT byt sent

As for phonologically conditioned allomorph selection, it affects both 1pl and the root of verb fini 'to finish'. 1pl has two allomorphs: -o (unstressed) and -oma (stressed). The root of verb fini, in turn, alternates in the following manner. The stressed allomorph, finiss-, appears in the PresSubj forms and in the 1pl form of PresInd (finioma 'we finish'), whereas the unstressed allomorphs, fin- and fini-, appear in the ImpInd and 1-3sg and 2-3pl forms of PresInd. According to Ricca (2016), this generalization holds true for the whole verbal paradigm in Piedmontese. Time permitting, I will show that it is possible to posit a unique underlying form for each of these two morphemes: following Chierchia (1986), I make the hypothesis that Piedmontese stress introduces two skeletal slots (=syllabic positions) that allow for floating segments to associate with them and thus be realized (the stressed allomorphs, -oma and finiss- contain additional segmental material w.r.t. both -o and fin(i)-.) Conclusion. Piedmontese verbs offer interesting evidence in favor of clear-cut division of labor between phonology and morphology/syntax in triggering allomorphy. Consistently with Kiparsky's (1996) distinction, true allomorph selection involves linear adjacency, whereas stress is responsible for phonologically conditioned alternation. (Bermúdez-Otero 2012 for a recent discussion on this topic.) Selected references. Halle, M. & A. Marantz 1993. Distributed Morphology and the Pieces of Inflection. The View from Building 20, K. Hale, S. J. Keyser (eds.), MIT Press, 111-176. Bermúdez-Otero, R. 2012. The architecture of grammar and the division of labour in exponence. The morphology and phonology of exponence, J. Trommer (ed.), OUP, 8-83. Calabrese, A. 2015. Irregular Morphology and A-thematic verbs in Italo-Romance. Isogloss, 2015, 69-102. Chierchia, G. 1986. Length, syllabification and the phonological cycle in Italian. Journal of Italian Linguistics 8, 5-34. Embick, D. 2000. Features, Syntax and Categories in the Latin perfect, LI 31, 185-230. Embick, D. 2010. Localism versus Globalism in Morphology and Phonology. MIT Press. Gribanova, V. & S. S. Shih. (eds.) 2017. The morphosyntax-phonology connection: Locality and directionality at the interface. New York: OUP. Kiparsky, P. 1996. Allomorphy or morphophonology? Trubetzkoy's orphan: Proceedings of the Montréal roundtable "Morphonology: contemporary responses" (Montréal, September 30-October 2, 1994), R. Singh & R. Desrochers (eds), Amsterdam: Benjamins, 13-31. Oltra-Massuet, I. & K. Arregi 2005. Stress-by-structure in Spanish. LI 36,1:43-84. Ricca, D. 2016. Piedmontese: a sketch. Course handout, Summer school in Languages and linguistics of the Mediterranean (http://llm.unica.it/), Cagliari (Italy), 13-24 June 2016. Scheer, T. To appear. Spellout and its consequences on the PF branch. The Cambridge handbook of Minimalism, K. K. Grohmann & E. Leivada (eds.) Cambridge: CUP.