On morphological alternation and late insertion. Spanish Analogical Strong Preterits under the microscope

María Mare
Universidad Nacional del Comahue/CONICET
maria.mare@uncoma.edu.ar

Enrique Pato
Université de Montréal
enrique.pato-maldonado@umontreal.ca

Abstract

This paper discusses morphological alternations in the so-called strong preterits in Spanish. The starting point is the variation phenomenon known as Analogical Strong Preterits, which is characterized by the formation of 3PL on the basis of 3SG, adding the exponent /n/: *dij-o-n*, instead of general *dije-ro-n* 'they said'. Although this is the way in which the 3PL is obtained in the rest of the paradigm, Spanish preterits regularly present the segment *-ro-* at the left of *-n*. The varieties with Analogical Strong Preterits preserve the segment *-ro-* in all the other verbs (*canta-ro-n* 'they

sang'), but shows this particular form in the case of strong preterits. Within the framework of Distributed Morphology, we explore the morphological alternations found in relation to verbal stems (*dec-/dij-* for √SAY) and functional morphology (-*ro/-o* for T/Pers). Our approach focuses on the properties of Vocabulary Items and the locality of terminal nodes for vocabulary insertion, avoiding thus any kind of post-syntactic operation.

Keywords: Spanish, Analogical Strong Preterits, roots, morphological alternation, Late insertion

1. Introduction

Spanish varieties are characterized by the presence of the exponent /ro/ followed by /n/ in the 3PL preterit forms, whereas in the rest of the paradigm the only difference between 3SG and 3PL is the phonological exponent /n/ in the latter. This distinction is illustrated in Table 1 with the regular verb *cantar* 'to sing'. Irregular verbs show the same behavior.

Table 1. 3SG and 3PL in the Spanish *cantar* 'to sing' verbal paradigm

	Pres. Ind.	Fut. Ind.	Imperf. Ind.	Pres. Subj.	Imperf. Subj.	Cond.	Preterit
3SG	canta	cantará	cantaba	cante	cantara cantase	cantaría	cantó
3PL	canta-n	cantará-n	cantaba-n	cante-n	cantara-n cantase-n	cantaría-n	canta-ro-n

Interestingly, Pato (2010) observes that there are varieties in which some preterits form the 3PL without the exponent /ro/, adding only /n/ to the 3SG: *tuvo* '(s)he had'/*tuvo-n* 'they had', instead of the general *tuvieron* 'they had'.

(1) Lo *tuvon*   aquí una temporada. Sí,   y   lo vendían   [la miel].
     it   had.3PL here one season   yes   and it sold.3PL   the honey
     'They had it here for a while. Yes, and they sold it.'

Pato provides data from eastern Leon, western Castile and Extremadura, and also points out that the phenomenon has been documented since the 13th century. The author calls it Analogical Strong Preterits (ASP, from now on), because he observes that the absence of /ro/ is attested only in the so-called strong preterits, which contrast with regular preterits in the stress pattern: in bisyllabic verbs the former are stressed in the first syllable (the one corresponding to the stem: *TUvo*[1] '(s)he had'), whereas the latter are stressed in the final syllable (the one corresponding to the inflectional morphology: *canTO* '(s)he sang).

In general, this distinction is only observed in the 1SG and 3SG forms, while in the 3PL, the stress pattern is the same in both preterit forms (*tuVIEron* 'they

---

[1]   We use capital letters to represent stressed syllables when this information is relevant for expository purposes. As is well known, in written language the first form does not have an accent (*tuvo*), and the second does (*cantó*).

said'/*canTAron* 'they sang'). In contrast, ASP extends the stress pattern of the 1SG/3SG to the 3PL: *TUvon* 'they said' (strong preterit), but *canTAron* 'they sang' (regular preterit). In short, ASP varieties distinguish strong preterit forms from regular preterit forms in the 3PL, while other varieties show no differences: they always present the exponent /ro/ in 3PL and the same stress pattern as regular forms. For the sake of exposition, we will call the former *Distinguishing Varieties* (DV) and the latter *Non-Distinguishing Varieties* (NDV)[2].

The data under scrutiny give rise to different questions that refer not only to ASP, but also to the peculiarities of general forms. Throughout this paper we would like to make these questions explicit in order to look for some solutions or answers within the Distributed Morphology (DM) framework. One of the distinguishing features of DM, among others, is the late insertion of phonological exponents and the existence of a post-syntactic level –the Morphology– in which different operations take place. Since the seminal works of Halle & Marantz (1993, 1994) there has been considerable debate on these two properties: Are all language units subject to late insertion?; How does late insertion take place?; Which kind of mechanisms are found in the Morphology?; Are all of them necessary or desirable?; How could the Morphology account for linguistic variation without falling into the look-ahead paradox?; How can the morphological alternations of Roots be explained?

The goal of this paper is to revise the so-called Analogical Strong Preterits in Spanish (Pato 2010) under the discussions above mentioned. We show that these forms are much more regular than they seem to be and that all their characteristics can be explained observing the behavior of the vowels involved. We argue for an analysis of strong preterits as athematic forms, which, in a late insertion model, means that there are two different size vocabulary items to externalize a Root in the Lexicon. This proposal is summarized by the *Strong Preterits Rule* which states that strong preterits are phonological exponents that materialize the Root ($\sqrt{}$) and the verbalizer (*v*) together when Tense is [PAST]. As will to be argued for, the vowels found in the verbal paradigm do not have the same status: some vowels materialize the verbalizer (theme vowels), while other vowels are inserted for syllabification, and are therefore not related to any node or span.

In order to understand the reasons behind our *Strong Preterits Rule* it is necessary to present all the pieces of this puzzle. The paper is organized as follows. The description of the data, as well as some insightful review of Spanish verbal paradigms, is developed in section 2. Section 3 is concerned with the general theoretical discussion on morphological alternations and the individuation of Roots. The analysis of Pomino & Remberger (2022) of Root suppletion is also reviewed in this section. The goal of section 4 is to discuss the data under the microscope of the proposals previously revisited and to develop an analysis for strong preterits in Spanish. The conclusions of our research are summarized in section 5.

---

[2]   We decide to use this terminology instead of *standard/general Spanish* vs. *non-standard/vernacular Spanish*, in order to avoid this kind of labels that are not useful for descriptive goals, for they (could) feed the idea that there are dialects with different status.

2. The puzzle

Spanish verbal morphology (in fact, Indo-European languages verbal morphology) is characterized by the lack of explicit morphology in many parts of the paradigm. For instance, Tense, Aspect and Mood (TAM) information is almost always lexicalized together, but in many cases, it cannot be identified through a specific segment. Compare, for instance, *hoy cantan* 'they sing today'/*ayer cantaron* 'they sang yesterday' with *hoy cantamos* 'we sing today'/*ayer cantamos* 'we sang yesterday'. In the former pair the segment *-ro-* is related to TAM information, while in the latter this information is not lexicalized (there is no phonological material related to TAM). Beyond this, there are some other characteristics of the Spanish verbal paradigm that make the variation found in the strong preterits 3PL very interesting not only to understand this particular case, but also to revisit the general forms of the preterit. For this reason, the section is organized in six observations, Analogical Strong Preterits being just one of them. The others, as far as we understand, need to be considered to complete the puzzle under study.

2.1. Roots' morphological alternations

Leaving aside a few exceptions[3], the alternating forms found in Spanish irregular verbs are not totally different. In fact, descriptive grammars highlight that a segment "change its form" when the verb is conjugated in a specific tense (RAE-ASALE 2009: 218- 219). The forms this paper is dealing with show a segment which is found in the preterit indicative tense and in the imperfect subjunctive tense (Table 2).[4] Both tenses derive from the so called "Latin perfect theme". The morphological difference between these two tenses is that, while the imperfect subjunctive paradigm is regular –beyond Root alternation, it always presents the morpheme *-ra-* (*dije-ra-s* '(that) you$_{SG}$ would say'; *dije-ra-mos* '(that) we would say'; *dije-ra-n* '(that) they would say')[5]–, the preterit indicative is not characterized by the presence of regular morphology across the paradigm (*diji-ste* 'you$_{SG}$ said'; *diji-mos* 'we said'; *dije-ro-n* 'they said')[6].

   Following RAE-ASALE's description (2009: 235-242), the changes found in the verbs involved in the Analogical Strong Preterit phenomena are listed in Table 1. As has been pointed out, "all strong preterits have a high vowel (*u* or *i*) in the Root, except for *traer* (but cf. dialectal *trujo*) and the *u* is always used before a labial consonant" (Pérez Saldaña 2014: 242). On the other hand, the unstressed endings of the first and third person singular forms (*dije* 'I said'/*dijo* '(s)he said') characterizes

---

[3]   Verbs *ser* ('to be'), *ir* ('to go'), *haber* ('to have'), *saber* ('to know') and *caber* ('to fit').

[4]   It is also found in the future subjunctive. This form is less frequent in current Spanish and has disappeared in many varieties. For this reason, we are not going to include it in the discussion.

[5]   It should be noted that the imperfect subjunctive also shows the form in *-se-* (*dije-se-s*), as we will see in Table 4 below.

[6]   Since one of the central aspects of our analysis is related to the status of the vowels found in these forms, the segmentation presented here focuses only on the segments related to TAM information.

this preterit in contrast with the stressed endings of non-strong preterits (*canté* 'I sang'/*cantó* '(s)he sang').

Table 2. Spanish morphological alternating Roots

Infinitive Form	Suppletive Form	Change	Examples with 1PL agreement
Andar 'to walk around'	anduv-	Addition of /uβ/	PInd: anduvimos ImpSubj: anduviéramos
Conducir 'to drive'	conduj-	Change from /θ~ s/ to /x/	PInd: condujimos ImpSubj: condujéramos
Decir 'to say'	dij-	Change from /eθ~es/ to /ix/	PInd: dijimos ImpSubj: dijéramos
Estar 'to stay'	estuv-	Addition of /uβ/	PInd: estuvimos ImpSubj: estuviéramos
Haber 'to be'	hub-	Change from /aβ/ to /uβ/	PInd: hubimos ImpSubj: hubiéramos
Hacer 'to do'	hiz-	Change from /a/ to /i/	PInd: hicimos ImpSubj: hiciéramos
Poder 'to be able to'	pud-	Change from /o/ to /u/	PInd: pudimos ImpSubj: pudiéramos
Poner 'to put'	pus-	Change from /on/ to /uθ~us/	PInd: pusimos ImpSubj: pusiéramos
Querer 'to want'	quis-	Change from /eɾ/ to /iθ~is/	PInd: quisimos ImpSubj: quisiéramos
Saber 'to know'	sup-	Change from /aβ/ to /up/	PInd: supimos ImpSubj: supiéramos
Tener 'to have'	tuv-	Change form /en/ to /uβ/	PInd: tuvimos ImpSubj: tuviéramos
Traer 'to bring'	traj-	Addition of /x/	PInd: trajimos ImpSubj: trajéramos
Venir 'to come'	vin-	Change from /e/ to /i/	PInd: vinimos Imp.Subj: viniéramos

As the phenomena this paper is dealing with involves alternating Roots –and only alternating Roots–, it seems to be necessary to take a look at these forms in order to understand which features could trigger their insertion. A good candidate is the feature [PAST] which is involved in the preterit indicative as well as in the imperfect subjunctive. However, this feature would also be involved in the imperfect indicative, a form which does not trigger Root's alternation (*decía/*dijeba* 'I used to say').[7] We return to this problem in section 4.3.

2.2. Multiple exponence

As we have seen, ASP are characterized by the absence of the segment *-ro-* (*dijon* instead of *dije-ro-n* 'they said'). However, notice that there is a particular segment that could be related to TAM information: *-o-* (*dij-o-n* 'they said'; *hiz-o-n* 'they did'). Otherwise, the vowel between the Root and agreement morphology should be /a/, /e/, /i/, or the diphthong /ie/. Beyond this fact, both varieties seem to materialize the same information twice: in the Root and in the morpheme. Regardless of the analysis

---

[7]   It should be clarified that for the purposes of this paper, we use the asterisk (*) to indicate a datum that we do not currently have on record, and not as something that is impossible in the grammar of a variety.

adopted, scholars agree on the fact that these alternative Roots and the segment *-ro-*[8] are related one way or another with TAM information.

This topic is interesting for neo-constructionist late insertion models, because it involves two relevant discussions. The first one is related to the distinction between suppletion and morphological alternation. Embick & Halle (2005), for instance, argue that suppletion, i.e., a totally different morphological form, does not involve Roots, but functional vocabulary. For them, the verbs listed in Table 2 would be like the pairs *sing/sang*, *break/broke*, which are the result of Readjustment Rules, i.e., phonological rules conditioned by morphosyntactic information as well as for Root specific information. This means that *sang* and *broke* would not be listed. Moreover, it implies that Roots have a different status from functional vocabulary items which compete for insertion. In contrast, Siddiqi (2009) argues against the idea of Roots as different objects in relation to competition for insertion. Accordingly, he proposes that *sing* and *sang* are listed, the latter being a more specified vocabulary item than the former. Under this approach, the distinction between suppletion and morphological alternation is irrelevant, and "having a completely different form" would be an epiphenomenon.

2.3. Differential marking

One of the most intriguing characteristics of the preterit paradigm in Spanish is its lack of regularity as the result of language change. As shown in Table 3, only the 3rd person plural materializes morphology which could be related to TAM (*-ro-*).

Table 3. Spanish preterit perfect

	1SG	2SG	3SG	1PL	3PL
trabajar	trabaj-é	trabaj-a-ste	trabaj-ó	trabaj-a-mos	trabaj-a-ro-n
decir	dij-e	dij-i-ste	dij-o	dij-i-mos	dij-e-ro-n

The antecedent of the segment *-ro-* is found in the Latin paradigm (*ama-ve-ru-nt* 'they loved'), but again, this segment is not only conditioned by TAM information but also by Person/Number (P/N from now on) agreement. In fact, the segment *-ve-* regularly materializes TAM information across the Perfect paradigm. Oniga (2014: 126) mentions that "in Archaic and Vulgar Latin, the so-called 'syncopated' perfects are frequently attested, i.e. perfects in *-āvī, -ēvī, -īvī* can drop the *-v-* and the following vowel, e.g. *amārunt, amāram < amāvērunt, amāveram*."

Spanish inherited the syncopated forms. As a result, TAM information is only visible though the presence of some morphemes also associated with P/N. Interestingly, Latin verbs which show different stems for perfect (perfectum) and imperfect (infectum), such as *dico/dixi* 'to say', do not materialize the segment *-ve/vi-*. For instance, opposed to *amavimus* 'we loved', we find *diximus* 'we said'. The same situation is observed across the paradigm in the tenses derived from the stem of the perfectum (perfect indicative and subjunctive, pluperfect indicative and subjunctive and future perfect). Latin grammars do not highlight this difference of stems in general, and describe the contrast infectum/perfectum as involving the same

---

[8]   Even if *-ro-* is analyzed as part of the third person agreement morpheme (Pomino & Remberger 2022: 15), its presence is conditioned by TAM information, because in the rest of the paradigm the third person agreement morpheme materializes as *-n*.

pattern in *amamus*/*amavimus* 'we love/loved' as in *dicimus*/*diximus* 'we say/said'. However, while in the first case the stem is the same (*ama-*) and perfective information is materialized independently, in the case of *dicere* 'to say' perfective information seems to condition the externalization of the stem.

Going back to the idea of differential marking, the presence of Latin *-ru-* and Spanish *-ro-* is characteristic for a specific tense (perfect indicative) and a specific P/N (3PL). As it is not present in relation to other P/N information, it is not possible to associate it with TAM features. It may not be related to P/N (3PL) information either, because it is absent in the rest of the tenses. The differential marking attested in the Latin paradigm is characteristic of current Spanish. In both cases, it represents a morphological puzzle.

2.4. Analogical Strong Preterits (ASP)

As can be noted, the so-called ASP is just another part of the interesting puzzle of preterit forms. It is hard to account for this phenomenon and try a formal explanation without considering the above (and the following) discussions. In this part we focus on the characteristics of the Distinguishing Varieties (DV) in contrast with the Non-Distinguishing Varieties (NDV). Pato (2010) notices that in DV a specific group of verbs may present an alternative form for 3PL preterit: *dijon* 'they said', instead of *dijeron* 'they said'. The verbs that follow this pattern were summarized in Table 1, and can be grouped because they show morphological alternations and a differential stress pattern (Table 4).

Table 4: General 3PL forms and Analogical Strong Preterits

Infinitive Form	3SG form	3PL general form	3PL ASP
Andar 'to walk around'	anDUvo	anduVIEron	anDUvon
Decir 'to say'	DIjo	diJEron	DIjon
Estar 'to stay'	esTUvo	estuVIEron	esTUvon
Haber 'to be'	HUbo	huBIEron	HUbon
Hacer 'to do'	HIzo	hiCIEron	HIzon
Poder 'to be able to'	PUdo	puDIEron	PUdon
Poner 'to put'	PUso	puSIEron	PUson
Querer 'to want'	QUIso	quiSIEron	QUIson
Saber 'to know'	SUpo	suPIEron	SUpon
Tener 'to have'	TUvo	tuVIEron	TUvon
Traer 'to bring'	TRAjo	traJEron~traJIEron	TRAjon
Venir 'to come'	VIno	viNIEron	VInon

Thus, DV speakers materialize TAM information in a different way according to morphological alternations and stress patterns in the verbal stem.[9] This entails that the phonological information of the verbal stem determines the way in which TAM information is materialized. Interestingly, the phonological exponents of strong preterits are typical of verbal stems. That is, while the phonological sequence /traβax-/ can be found in verbs (*trabaj-a-ro-n* 'they worked') and in other word classes (*trabaj-o* 'job', *trabaj-a-dor* 'worker'), strong preterit stems are only found with verbs (*pud-ie-ro-n* 'they could'). Other words classes materialize a different

---

[9]   We use *verbal stem* to refer to the phonological segment that materializes the syntactic sequence involving a root and a verbalizer. As Embick & Halle (2005) clearly discuss, stems do not have any theoretical status for Distributed Morphology.

phonological sequence: *poder* 'power' (*puder), *pod-er-oso* 'powerful' (*puderoso), *sabio* 'wise' (*supio, *supidor), etc.[10]

A possible hypothesis is that DV speakers distinguish between a phonological sequence that materializes only a Root and a phonological sequence that realizes a Root + functional information (for instance, a *v* categorizer in a Distributed Morphology approach). This distinction seems not to be relevant for the materialization of TAM in NDV. In section 3 and 4 we explore how to formalize this hypothesis. Finally, it is worth mentioning that DV speakers also use the forms *dijeron* 'they said', *hicieron* 'they did', etc. Although some verbs are mainly employed in their ASP form (*pudon*, *supon*), both options would be stored in the speakers' lexicon. At the moment, we do not have enough information to define whether the two alternatives have the same status or not, and what the difference is, in the latter case. In a sense, the possibility of two forms coexisting could be compared to the alternation between regular and irregular patterns in any language and word class, as in the case of Spanish regular *rompido* 'broken' and the irregular *roto* 'broken'.

2.5. Subject agreement

Another piece in our puzzle is subject agreement morphology. Each of the three plural persons shows its own morphology or in many varieties, 2PL and 3PL are syncretic (for an explanation of this syncretism see Mare (2021)). In the singular forms, only the 2SG shows its own exponent, while 1SG and 3SG show no exponence at all (see Table 4). Of course, it is possible to postulate a zero exponent, but this proposal is far from being explicative (see, however, Fábregas 2016 for arguments in favor of zero morphemes for the third person in the present indicative paradigm). Moreover, in many tenses 1SG and 3SG show the same final vowel. The coincident forms are highlighted in Table 5 by a gray background.

Table 5: Singular persons in the Spanish verbal paradigm

Tense/Person	1SG	2SG	3SG
Present indicative	canto/digo	cantas/dices	canta/dice
Imperfect indicative	cantaba/decía	cantabas/decías	cantaba/decía
Perfect indicative	canté/dije	cantaste/dijiste	cantó/dijo
Future indicative	cantaré/dire	cantarás/dirás	cantará/dirá
Conditional	cantaría/diría	cantarías/dirías	cantaría/diría
Present subjunctive	cante/diga	cantes/digas	cante/diga
Imperfect subjunctive	cantara~se/dijera~se	cantaras~ses/dijeras~ses	cantara~se/dijera~se

---

[10]   Pato & O'Neill (2013) describe varieties that maintain the strong preterit stem in gerunds: *supiendo* instead of *sabiendo* 'knowing', *tuviendo* instead of *teniendo* 'having', etc. They argue in favor of a phonological conditioning. On the other hand, an anonymous reviewer notes two exceptions to our generalization: *pudiente* 'wealthy' and *requisito* 'requirement'. The former is an adjective derived from the present participle of *poder* 'can' and is an example of a late regularization on the old form *podiente* (*pod-*). The second case is a noun derived from the supine of Latin *requaero* –current Spanish *requerir* 'to demand'. Beyond the etymological relation between *requerir* and *querer*, only the latter has a strong form in the preterit. We do not think that these cases invalidate our generalization.

The relevance of this fact is that in DV we find /o/ in 3SG and 3PL. We could assume, then, that this /o/ is not just the materialization of person information, but the realization of some other features/nodes. If this is the case, the way in which the Root, the verbalizer, TAM information and agreement interacts should be explained.

2.6. Theme Vowels

Last but not least, it is necessary to say something about theme vowels. These elements have a relevant status in the verbal domain because they determine morphological differences in the conjugation patterns. This is one of the reasons that motivate scholars to postulate that these elements materialize the verbal category one way or another. In DM, for instance, theme vowels are assumed to be inserted in the categorizer *v* (see Fábregas 2017) or in a node merged to *v* post-syntactically (a dissociated node) (see Oltra-Massuet 1999, Oltra-Massuet & Arregi 2005). In any case, its presence or absence is part of our puzzle, because it is one of the elements that also distinguish DV from NDV. While in NDV 3PL forms always present a vowel in perfect forms (regular preterit: *trabaj-a-ro-n* 'they worked'; strong preterit: *dij-e-ro-n* 'they said'), DV show a theme vowel in the 3PL regular forms (*trabaj-a-ro-n* 'they worked'), but not in the strong preterits (**dij-e-o-n* 'they said').

As pointed out in section 2.1, the theme vowel seems to influence the way in which the rest of the information materializes. For instance, in the imperfect subjunctive paradigm, the morpheme *-ra-* most frequently follows a vowel, although the verbal stem presents morphological alternations: *dij-e-ra-n* '(that) they would have said'. Moreover, its presence/absence may have some impact on the stress patterns described in the introduction.

Finally, it is relevant to note that there are vowels that can be clearly associated to morphological information, such as /a/ in the first conjugation (*cant-a-r*), while others could only be triggered by some phonological requirement, in particular, for the sake of syllabification. Of course, this phonological requirement may be also met by a theme vowel. However, when the insertion of the theme vowel does not occur –for whatever reason–, an epenthetic vowel needs to be added for syllabification. Interestingly, /e/ is the general epenthetic vowel in Spanish (see Colina 2014: 147-148, for discussion), but it also is considered a theme vowel in the second conjugation (*com-e-r* 'to eat').

3. Some approaches on vocabulary insertion

The ASP phenomenon represents a new challenge for the analysis of verbal morphology in Spanish. If we aspire to explain the DV, it is pivotal to revisit the general properties of NDV. The key seems to lie in understanding the distribution of morphologically alternating Roots and providing a formalization of it. Accordingly, we will analyze the data within the framework of Distributed Morphology (DM; Halle & Marantz 1993, 1994). As is well known, DM is a late insertion approach. This means that morphosyntactic processes, which combine Roots, functional elements and features, derive abstract hierarchical structures. The outcome of syntax is mapped cyclically onto morphophonological realizations by a process called

Vocabulary Insertion (VI). The two starting point questions that guide our research are the following:

- Why is the same 'concept' materialized in different ways across Spanish varieties? For instance, why is the concept of 'saying' related to two distinct stems *dec-* (*decía* '(s)he said') and *dij-* (*dijo* '(s)he said')?
- Why do the DV regular perfective forms not present the 3SG/3PL analogy while strong preterits do? (*cantó* '(s)he sang' ~ *cantaron* 'they sang', but *dijo* '(s)he said' ~ *dijon* 'they said')

In this section, we focus on some relevant discussions on the late insertion of Root, paying special attention to their individuation and the cases in which the syn-sem features of functional nodes affect their materialization, as in *mouse/mice*. Morphological alternations and suppletion are found among the phenomena that have caught scholars' attention for theoretical reasons. As defined by Bobaljik (2015: 1) the former "may include a change in the root as well as (or sometimes instead of) the addition of an affix" (*tell-told*), while the latter describes the case in which the Root "is subject to wholesale replacement" (*bad- worse*). Of course, morphological alternation and suppletion not only affect Roots, but also different morphological units.

What is interesting about Roots is that the hypothesis on late insertion does not show the same degree of agreement among scholars, as Harley (2014) and Vanden Wyngaerd *et al.* (2021) have clearly highlighted. Discussions revolve around the conceptual meaning of Roots, the way in which these elements are individuated, and the compatibility between some kind of individuation and the *Strong Modularity Thesis* (SMT)[11]. There are at least five plausible hypotheses: (1) Roots are phonologically individuated in the Syntax and, consequently, they are not involved in Late insertion (Borer 2009); (2) some Roots are phonologically individuated in the Syntax, but the default case is that they are not (Embick 2015); (3) Roots are identified by their conceptual meaning, and consequently, they are like any other vocabulary item in relation to late insertion (Siddiqi 2009); (4) Roots are individuated, but neither phonologically, nor semantically (Acquaviva 2008, Harley 2014, Acedo-Matellán 2016); (5) Roots are not individuated at all (Ramchand 2008, Starke 2014, Vanden Wyngaerd *et al.* 2021).

The problems outlined in section 2 show that, beyond assumptions regarding conceptual meaning, it becomes crucial to say something about the phonological exponents involved in verbal stems. Accordingly, we agree with proposals that assume late insertion of (at least) phonological information for Roots (hypotheses 3 to 5). Thus, the discussion orbits around the conditions for Vocabulary Insertion (VI).

In standard versions of DM, VI operates in relation to terminal nodes and the lack of isomorphism between terminal nodes and corresponding phonological exponents is explained by the application of postsyntactic operations like fusion,

---

[11]   The *Strong Modularity Thesis* states that "syntactic representations only contain entities that are relevant for the application of syntactic principles and operations" (Vanden Wyngaerd *et al.* 2021: 82).

fission, pruning, impoverishment, etc. In an attempt to reduce the (sometimes arbitrary) postsyntactic operations proposed, some researchers are exploring the hypothesis that VI is not circumscribed to terminal nodes, but it can operate over adjacent spans of terminal nodes. For instance, the *Span-Adjacency Hypothesis* developed in Merchant (2015: 294) points out that allomorphy is conditioned only by an adjacent span. A similar way of reasoning is recognized in Bobaljik's (2012) **ABA* pattern.[12]

Following the spanning proposal, Pomino & Remberger (2022) analyze Romance Root suppletion, in particular, the case of √GO for Spanish. For example, the 1PL forms (which always show the agreement morpheme *-mos*) are *vamos* (present), *íbamos* (imperfect), *fuimos* (preterit). The authors observe that the verbs that present suppletion are athematic verbs as opposed to verbs belonging to the first conjugation that are always thematic and show regular paradigms (*cant-a-mos* 'we sing', *cant-a-ba-mos* 'we used to sing'). In an attempt to explain this consistent difference, the authors assume with Oltra-Massuet (1999) that the node for theme vowels (Th) merges in the structure as sister of the categorizer *v* (verbalizer) and also as sister of other functional nodes such as T (2).

(2)
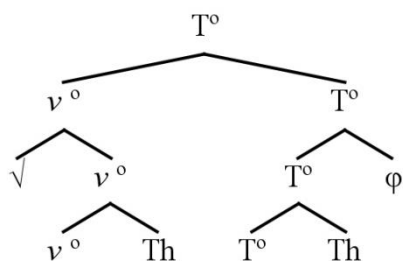
In the case of thematic verbs, the node Th externalizes as the corresponding vowel (for instance, /a/ in *cant-a-mos*), while the phonological exponent /kant/ materialize the two adjacent nodes √ and *v* (3). In Pomino & Remberger's words "the span size of the vocabulary item /kant/ is <√SING, *v*>; the following theme vowel position is realized by the default theme vowel /a/" (p. 13).

(3)

---
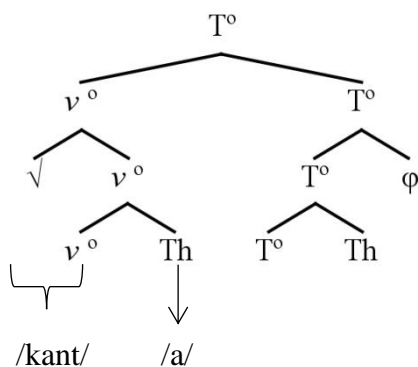
[12]   The **ABA* pattern states that in a three-member paradigm ordered by markedness, the pattern in which the first and the third share a form to the exclusion of the middle member is not attested.

On the other hand, athematic verbs have a span size that includes not only √ and *v*, but also the node Th, which is sister of *v*. This means that the difference between thematic and athematic verbs depends on the span size of the vocabulary item. Let us compare the Vocabulary items for SING and GO in Spanish, according to Pomino & Remberger's proposal.

(4)   VI for GO
       <√GO, *v*, Th> ↔ /fwe/ /____ [preterit] (*fuimos* 'we went')
       <√GO, *v*, Th> ↔ /ba/ /____ [present] (*vamos* 'we go')
       <√GO, *v*, Th> ↔ /i/ (default) (*íbamos* 'we used to go')

(5)   VI for SING
       <√SING, *v*> ↔ /kant/

In order to account for vocabulary insertion, Pomino & Remberger follow the Subset Principle (Halle 1997: 428) with the addition that "the phonological exponent of a vocabulary item is inserted at the minimal node [=span] dominating all the features for which the exponent is specified" (Radkevich 2010: 8).

(6)   <u>The Subset Principle</u>
       The phonological exponent of a vocabulary item is inserted into a morpheme […] if the item matches all or a subset of the grammatical features specified in the terminal morpheme. Insertion does not take place if the vocabulary item contains features not present in the morpheme. (Halle 1997: 428)

The difference in span size lets Pomino & Remberger explain why tense features trigger allomorphy only with athematic verbs: T is an adjacent node for the span <√, *v*, Th> (athematic verbs), but not for the span <√, *v*> (p. 16).

The authors' explanation for Root suppletion is insightful and allows capturing the idea that thematic vowels appear to play a central role when it comes to morphological alternations. However, our verbs present some additional problems. First, they do not belong to the same conjugation class: while *andar* 'to get around' and *estar* 'to be' belong to the first conjugation, which is thematic (/a/ is the theme vowel), the rest of the verbs belong to other conjugations and some of them could be analyzed as athematic verbs. Second, the different phonological exponents for the Roots are independent of the presence/absence of the vowel: /dix-/ is the exponent for √SAY in the preterit perfect indicative and in the imperfect subjunctive, regardless of the presence of a vowel (*dij-e-ra* '(that) I said'). Third, the contrast between 3PL general preterits (*dijeron* 'they said') and 3PL analogical preterits (*dijon* 'they said') may suggest a segmentation that requires more terminal nodes. Consequently, the adjacency of nodes proposed by Pomino & Remberger as a key aspect of their proposal may not be held. Moreover, considering /ron/ as the materialization of 3PL in the perfect forms –as the authors do– is problematic and not descriptively adequate, since /n/ is regularly the exponent of a terminal node on its own. On the other hand, /ro/ as a phonological exponent for [3] agreement, should be conditioned by both, plural number agreement and Tense information. Finally, if

we follow the option that /r/ alone is a phonological exponent, we should define the corresponding terminal node and the conditions for its insertion.

4. Pandora's box

When the data from ASP are observed in comparison with the rest of the Spanish verbal paradigm, the proposal to explain variation seems to be at hand. As shown in Table 1, repeated below, 3PL forms follow a regular pattern with respect to 3SG by adding final /n/ to materialize plural number. In fact, 3PL preterit forms constitute an exception.

Table 1: 3SG and 3PL in the Spanish *cantar* 'to sing' verbal paradigm

	Pres. Ind.	Fut. Ind.	Imperf. Ind.	Pres. Subj.	Imperf. Subj.	Cond.	Preterit
3SG	canta	cantará	cantaba	cante	cantara cantase	cantaría	cantó
3PL	canta-n	cantará-n	cantaba-n	cante-n	cantara-n cantase-n	cantaría-n	cantaro-n

With Table 1 in mind, we could just say that ASP regularizes the paradigm. However, this regularization is quite different from others. For instance, a well-known regularization also found in preterit forms is the one that involves 2SG agreement. Throughout the entire verbal paradigm, the indicative and subjunctive forms of the 2SG show the *-s* ending, with the sole exception of the preterit, which ends in *-ste* (*cantaste* 'you sang'). As observed in the literature (RAE-ASALE 2009: 193), many speakers regularize these forms adding a final *-s*: *cantastes* 'you sang'.[13] This mechanism of regularization is found with all the verb classes, regardless of the Root morphological alternation or any other peculiarity. In contrast, the phenomenon under study is restricted to strong preterits (Table 4).

We could explain ASP by proposing that in DV there are two phonological exponents for third person information in the context of plural: /o/ and /ro/. In fact, our analysis goes in this direction. Notwithstanding, a formalization of this proposal implies the revision of many other aspects involved in the morphology of the preterit forms.

Along with the challenges in descriptive terms summarized in section 2, the data under analysis present theoretical challenges, such as how to account for the observed morphological alternation in relation to both functional terminal nodes and Roots. In the following sections, we will outline an analysis within the framework of Distributed Morphology in order to find a solution to some of the problems that have arisen after opening this Pandora's Box.

4.1. Tense and Person information

Irrespective of Root allomorphy, preterit forms do not show an exponent which can be exclusively related to Tense. In fact, the exponents found in strong preterits are

---

[13]   It is also the form used by some *voseante* speakers in countries such as Guatemala (*vos cantantes*) (RAE-ASALE 2009: 193).

also involved in other verbal forms which externalize tense and mood information with a particular vocabulary item. As shown in Table 1, the imperfect subjunctive shares the same Root exponent as the perfect, but it also has its own characteristic exponent /ra/ or /se/: *cantaran/cantasen* '(that) they sang'; *dijeran/dijesen* '(that) they say'.

As Roca (2010: 414) observes, "the preterit TAM exhibits strikingly strong suppletion". This suppletion is conditioned by agreement features; however, there are some interesting facts to point out. First, plural persons maintain their regular morphology: *-mos* for 1PL, *-is* for 2PL and *-n* for 3PL. Second, 2SG and 2PL share the same "TAM suppletion" (following Roca's words): *-ste*. Third, 1PL does not present a TAM exponent at all (*cantamos* 'we sang'), but the relevant tense information must be in the structure, because the verbs which show strong preterits preserve the alternative exponent /dix/ with 1PL: *dijimos* 'we said'.

Following Mare (2021) and taking into account the facts already highlighted, we distinguish person (Pers) and number (#) information in subject agreement morphology. Accordingly, /s/ and /n/ would materialize $\#_{[PL]}$ under particular conditions. The gist of our proposal is that "TAM suppletion" results from the regular externalization of Tense and Person, not of Tense and P/N as proposed in the literature (for instance, Oltra-Massuet & Arregi 2005, Roca 2010, Pomino & Remberger 2022). Let us see this proposal in the scheme in (7), where the square brackets mark the terminal nodes that are externalized by just one phonological exponent.

(7)   √-*v*-[T-Pers]-#

As the preterit does not have its own phonological exponent, lost as the result of language change processes (section 2.3), this information is externalized by the phonological exponents that also include person information. We do not need to assume zero exponents, but just understand that the consequence of the loss of preterit morphology has triggered a kind of reanalysis: vocabulary items that where contextually conditioned in Latin (8a) externalize both kinds of information in Spanish (8b). For expository purposes, we simplify the features employed.

(8)   a. [2] ↔ /ste/ / $T_{[PAST]}$ (rule for Latin)

b. [2, PAST] ↔ /ste/   (rule for Spanish)

Adopting the scheme in (7), in the case of Latin both T and Pers are available for vocabulary insertion, while in the case of Spanish both nodes are externalized by a unique phonological exponent. The same would happen with the third person plural.

(9)   a. [3] ↔ /ru/ / $T_{[PAST]}$ ___ $\#_{[PL]}$ (rule for Latin)

b. [3, PAST] ↔ /ro/ /$\#_{[PL]}$ (rule for Spanish)

Now, let us move on to 1PL. As was just said, we could assume a zero morpheme, but we can also analyze the 2 and 3 persons likewise. If we follow the same hypothesis, the only difference would be found in the available vocabulary items:

there is just one exponent for first person information when # is [PL], /mo/, and there is not a phonological exponent with tense features, compatible with first person information. This means that according to the *Subset Principle*, the only vocabulary item compatible with the span $\langle T_{[PAST]}\text{-Pers}_{[1]}\rangle$ is /mos/.

Before going to ASP, we would like to say something about the above-mentioned regularization of the 2SG. Under our analysis, the occurrence of 2SG exponent /s/ at the end of the verb in preterit forms can be understood as a new reanalysis of the sound chain in relation to the syntactic structure and morphological segmentation. Instead of being /ste/ the 2SG form conditioned by $T_{[PAST]}$ as in Latin (10a) or the externalization of [2, PAST] as in many Spanish varieties (10b, *-ste* varieties), this is reanalyzed as the materialization of $T_{[PAST]}$ in the contexts of 2SG (10c, *-stes* varieties). This means that the node for person in these varieties is available for vocabulary insertion (11). Consequently, the expected exponent /s/ materializes [2] as in the rest of the paradigm.

(10)   a. [2] $\leftrightarrow$ /ste/ / $T_{[PRET]}$ (rule for Latin)

b. [2, PAST] $\leftrightarrow$ /ste/   (rule for *-ste* varieties)

c. [PAST] $\leftrightarrow$ /ste/ / $\text{Pers}_{[2]}$ (rule for *-stes* varieties)

(11)   a. $\sqrt{}$-*v*- T /vi/ - PERS /ste/   (Latin)
b. $\sqrt{}$-*v* - [T-PERS] /ste/   (*-ste* varieties)
c. $\sqrt{}$-*v* - T /ste/ – PERS /s/   (*-stes* varieties)

As expected, reanalysis and allomorphy phenomena are observed in relation to adjacent nodes and the way in which the information codified in these nodes is externalized by the available lexicon of each language/variety.

Now we can return to the functional morphology in the contrast between DV and NDV. Our proposal is going to be complete when we discuss morphological alternation for Roots in section 4.2, but the general idea developed here follows the spirit of Pomino & Remberger's (2022) analysis. In a nutshell, the difference observed in the varieties is tied to the adjacency of $T_{[PAST]}$ to the vocabulary item that materializes the Root. In standard DM, Vocabulary Insertion occurs from the most embedded node (or span) outward. Embick (2010) proposes that VI takes place on linearized sequences, from Root out.

What we argue for, then, is that DV and NDV have two phonological exponents for $\langle T_{[PAST]}, \text{Pers}_{[3]}\rangle$: /ro/ and /o/. However, the distribution of these phonological exponents is not the same in each variety. In NDV, insertion is sensitive to number information: when # is [PL] $\langle T_{[PAST]}, \text{Pers}_{[3]}\rangle$ is materialized as /ro/, otherwise it is materialized by /o/ (12). In DV, the distribution is sensitive to the previous materialization of the verbalizer, which means that the conditions for /ro/ insertion not only depends on $\#_{[PL]}$ (a morphosyntactic condition), but also on the materialization of *v* independently from the Root (a phonological condition regarding previous Vocabulary Insertion). On the other hand, /o/ seems to be the default vocabulary item for $T_{[PAST]}, \text{Pers}_{[3]}$ (13). We use $v_{[TH]}$ to refer to *v* lexicalization (TH for theme vowel as is going to be explained in 4.2).

(12)   NDV
       <3, PRET> ↔ /ro/ / #[PL] (*cantaron* 'they sang', *dijeron* 'they said')
       <3, PRET> ↔ /o/ (*cantó* '(s)he sang', *dijo* '(s)he said')

(13)   DV
       <3, PRET> ↔ /ro/ /*v*[TH] ___ #[PL] (*cantaron* 'they sang', *comieron* 'they ate')
       <3, PRET> ↔ /o/ (*cantó* '(s)he sang', *dijo* '(s)he said', *dijon* 'they said')

4.2. On Root morphological alternations

As previously mentioned, one of the theoretical discussions for late insertion models refers to Roots. The two main topics that can be found in the literature focus on the identification of Roots in the Syntax (Marantz 1996, Harley 2014, Vanden Wyngaerd *et al.* 2021, Panagiotidis & Nobrega forthcoming) and on the possibility that they are subject to competition among vocabulary items like any other morpheme (Siddiqi 2009, Pomino & Remberger 2022, Gouskova & Bobaljik forthcoming). The data analyzed in this paper feed the discussion at least in relation to this second topic, because all the verbs involved in the ASP present morphological alternation in the materialization of the Root: *decir* 'to say' > *dijo* '(s)he said'; *hacer* 'to do' > *hizo* '(s)he did', etc.

To start with, Spanish strong preterits not only present a specific form, but they also differ from regular preterits in their stress pattern for 1SG and 3SG.

(14)   a. DIje 'I said'
       b. DIjo '(S)he said'

(15)   a. CanTE 'I sang'
       b. CanTO '(S)he sang'

In the stress algorithm proposed by Oltra-Massuet & Arregi (2005), 1SG and 3SG preterit indicative represent an exception in the regular paradigm, but not in the strong paradigm, at least under our analysis.

(16)   **Oltra-Massuet & Arregi's Stress algorithm** (2005: 49)
       a. Project a line 0 mark for each syllable nucleus.
       b. Insert a right parenthesis to the left of T on line 0.
       c. Project the rightmost mark of each line 0 foot onto line 1.
       d. Insert a right parenthesis to the right of the rightmost mark on line 1.
       e. Project the rightmost mark of each line 1 foot onto line 2.

As the authors point out, (16b) is the rule that derives stress placement in finite tenses. They add (2005: 49): "Note that it makes crucial reference to the syntactic node T, no to its phonological realization: that is, it ensures that stress precedes T, no matter what the realization of T is." Given the structure proposed in section 4.1 and the stress algorithm in (16), the stress pattern is straightforward. In (17) we compare 2SG preterit in regular and strong preterit and in (18) we compare 3SG and 3PL strong preterit.

(17)   2SG preterit
        a. Regular preterit

Line 1		x	
Line 0	x	x)	x
String	cant	a	ste
Syntax	√	*v*	T/Pers

        b. Strong preterit

Line 1		x	
Line 0	x	x)	x
String	dij	i	ste
Syntax	√-*v*		T/Pers

(18) Strong preterit
        a. 3SG strong preterit

Line 1	x	
Line 0	x)	
String	dij	o
Syntax	√-*v*	T/Pers

        b. 3PL strong preterit

Line 1		x		
Line 0	x	x)	x	
String	dij	e	ro	n
Syntax	√-*v*		T/Pers	#

As Pato (2010) notes, ASP maintains the stress pattern of 3SG corresponding forms. It is an expected result if stress precedes T.

(19) ASP

Line 1	x		
Line 0	x)		
String	dij	o	n
Syntax	√-*v*	T/Pers	#

Let us focus now on the distribution of the phonological exponents for Root. Our proposal is that the phonological exponent corresponding to strong preterit forms are athematic, in contrast to regular preterits. This means two things: first, the vowels found in some slots of the paradigm do not externalize a terminal node, but are epenthetic vowels that are phonologically inserted for syllabification purposes. Observe, in fact, that verbs belonging to the first conjugation (*estar* 'to stay' and *andar* 'to walk around'), which is typically thematic, present strong preterits with vowels different from expected /a/ (*estuv-ie-ron*, *anduv-ie-ron*). The case of *andar* 'to walk around' is particularly relevant, because this verb is subject to Root regularization: *andaron* instead of *anduvieron* 'they walked around' (Fábregas 2022: 12). As can be seen, the regular pattern presents /a/ to the left of the exponent /ro/, like *cant-a-ron* 'they sang', for instance. Interestingly, this regular form does not present an analogical preterit like **andon*, contrary to the strong preterit *anduvieron*

> *anduvon*. Another piece of data is those regular verbs that are classified as being members of the second (*comer* 'to eat') and the third conjugations (*vivir* 'to live'). These verbs do not lose their theme vowel in the 3SG perfect forms (*com-i-ó* '(s)he ate', *viv-i-ó* '(s)he lived'), as opposed to strong preterits.

The second idea behind the proposal of athematic preterits rests upon the assumption that theme vowels externalize the verbalizer (see Fábregas 2017 and references therein). In brief, they are not the materialization of a TH dissociated node added postsyntactically, as the analysis by Pomino & Remberger (2022) presented in section 3, or as in the classical proposal of Oltra-Massuet & Arregi (2005). What we call 'athematic forms' are therefore, from our perspective, phonological exponents that externalize the Root as well as the verbalizer. The close relationship between the Root and the verbalizer in these cases is reflected in the derived forms, such as *estancia* 'stay' (from *estar* 'to stay') or *sabiduría* 'knowledge' (from *saber* 'to know'), which are never formed from the phonological exponents that we associate with the strong preterit (section 2.4).

Briefly, strong preterits would be the result of a VI in the $<\sqrt{}, v>$ span when $T_{[PAST]}$. When the lexicon does not present a vocabulary item for such span, the Root is materialized independently and v is materialized by a theme vowel.

(20)   The Strong Preterits Rule
        Strong preterits are phonological exponents that materialize the $<\sqrt{}, v>$ span when $T_{[PAST]}$.

If we assume with Embick (2010) that VI takes place on linearized sequences, the adjacency between v and $T_{[PAST]}$ is going to define vocabulary insertion competition: if there is a candidate that can materialize $<\sqrt{}, v>$, it is going to win over a candidate that materializes only $\sqrt{}$. However, if the lexicon of a variety does not present a vocabulary item for $<\sqrt{}, v>$, there is not going to be competition at all.

The theoretical advantage of this analysis is that it does not depend on postsyntactic operations, such as fusion (in order to account for portmanteau morphemes) or pruning of terminal nodes (in order to explain the absence of the theme vowel)[14]. This proposal also offers tools for the analysis of the imperfect subjunctive (*dijeran/dijesen* '(that) they said'), which, on the one hand, maintains the strong preterits stem, but materializes person features independently from T. If subjunctive information is codified in a terminal node M above T, the locality between T and the $<\sqrt{}, v>$ span is preserved, while the locality between $T_{[PAST]}$ and Pers is broken: $\sqrt{} - v - T_{[PAST]} - M_{[SUBJ]}-Pers-\#$.

---

[14]   From this statement, one of the reviewers wonders why we do not consider an analysis in the theoretical framework of Nanosyntax, given that this model does not have a component with post-syntactic rules. While this observation is worthwhile, we are not ruling out the possibility that there are language phenomena that can be explained by the application of post-syntactic rules, such as those proposed by DM. However, this fact does not imply that all phenomena should be reduced to these operations, which can sometimes even obscure the different nuances that are the essence of a particular phenomenon.

4.3. Why **dijeba* or **dijía*

Finally, we would like to say something about tense information. As pointed out in section 2.1, the preterit indicative and the imperfect subjunctive share the interpretation of an event that takes place before other event (see among others Lamiquiz 1972). We have formalized that idea using $T_{[PAST]}$. However, this interpretation also applies to the preterit imperfect indicative, which does not present any morphological alternation of the Root.

Rojo (1990) and Rojo & Veiga (1999)'s proposal on temporal relations could shed some light on this problem. The authors argue that the distinction between Spanish preterit (*cantó*) and imperfect indicative (*cantaba*) is not aspectual, but temporal, and consequently, it can be codified by temporal features. In fact, the imperfect indicative expresses a situation which is simultaneous with an earlier reference to an origin. This means that there would be two temporal features involved in this tense: one that refers to simultaneity, which could be called [PRES(ent)], and another one that refers to anteriority, which have been called [PAST]. In that sense, the imperfect indicative would be represented by two projections for T, each projection codifying a different feature. Now, if the $T_{[PRES]}$ is adjacent to *v*, then the Strong Preterit Rule does not apply, and consequently, √ and *v* externalize separately.

(21) $\sqrt{}$-*v*-$T_{[PRES]}$- $T_{[PAST]}$-Pers-#

This would explain why there are not strong preterit exponents in the imperfect indicative, giving sequences like *dijeba* or *dijía* for √SAY.IMP.3SG. Needless to say, this hypothesis should be further developed, but remarkably, it is compatible with Oltra-Massuet and Arregi's stress algorithm.

5. Final remarks

In section 3 we made explicit two questions that guided our research:

- Why is the same 'concept' materialized in different ways across Spanish varieties? For instance, why is the concept of 'saying' related to two distinct stems *dec-* (*decía* '(s)he said') and *dij-* (*dijo* '(s)he said')?
- Why do the DV regular perfective forms not present the 3SG/3PL analogy while strong preterits do? (*cantó* '(s)he sang' ~ *cantaron* 'they sang', but *dijo* '(s)he said' ~ *dijon* 'they said')

Although there are many aspects that deserve deeper discussion, we have organized some of the elements inside this Pandora's Box and, particularly, we have searched for possible answers to the two questions mentioned above. First, the morphological alternation regarding Roots can be explained by distinguishing those vowels in the verbal domain that externalize a terminal node (the verbalizer) from those that are introduced for syllabification purposes. When doing this distinction, it is possible to observe that morphological alternations are in fact two vocabulary items that involve

the same Root, but which differ in their size, one of them also externalizing the verbalizer. The result of the insertion of this bigger vocabulary item is the absence of the so-called thematic forms.

The answer to the first question ushers us into the hypothesis formulated for the second one. As strong preterits are athematic forms –i.e., they involve vocabulary items that materialize the span $<\sqrt{}, v>$–, adjacency conditions change and consequently, it is possible to find some further variation. The two varieties analyzed in this paper, DV and NDV, are not completely different. In fact, they present the same phonological exponents (/o/ and /ro/) but distributed in a different way.

Remarkably, the analysis of ASP shows that this phenomenon follows a very regular pattern. The algorithm of stress assignment is hold without any additional assumptions and the third person behaves as the rest of the paradigm: /n/ is added to third singular forms to obtain 3PL agreement. In brief, the study of ASP invites us to continue exploring the puzzling morphosyntax of the Spanish preterit paradigm.

Acknowledgments

References

Acedo-Matellán, Victor. 2016. *The Morphosyntax of Transitions*. *A case study in Latin and other languages*. Oxford: Oxford University Press.

Acquaviva, Paolo. 2008. *Roots and lexicality in Distributed Morphology*. Ms.: University College Dublin/Universität Konstanz.

Bobaljik, Jonathan. 2012. *Universals in comparative morphology*. *Suppletion, Superlatives, and the Structure of Words*. Cambridge, Mass.: MIT Press.

Bobaljik, Jonathan. 2015. Suppletion: Some theoretical implications. *Annual Review of Linguistics* 1: 1–18.

Borer, Hagit. 2009. Roots and categories. Conference at the *19th Colloquium on Generative Grammar.* Vitoria-Gasteiz: Universidad del País Vasco. http://www---rcf.usc.edu/~borer/rootscategories.pdf

Colina, Sonia. 2014. Syllable Structure. In I. Hualde, A. Olarrea, & E. O'Rourke (eds.), *The Handbook of Hispanic Linguistics*, 133–153. Oxford: Wiley Blackwell.

Embick, David. 2010. *Localism versus Globalism in Morphology and Phonology*. Cambridge, Mass.: MIT Press.

Embick, David. 2015. *The morpheme. A theoretical introduction*. Berlin: De Gruyter Mouton.

Embick, David & Morris Halle. 2005. On the status of stems in morphological theory. In T. Geerts, I. van Ginneken & H. Jacobs (eds.), *Romance Languages and Linguistic Theory 2003: Selected papers from 'Going Romance' 2003, Nijmegen, 20–22 November*, 37–62. Amsterdam: John Benjamins. https://doi.org/10.1075/cilt.270.03emb

Fábregas, Antonio. 2016. Una nota sobre el morfo cero: el imperativo y la vocal temática. *Círculo de Lingüística Aplicada a la Comunicación* 68: 100–116. http://dx.doi.org/10.5209/CLAC.54523

Fábregas, Antonio. 2017. Theme vowels are verbs. *Rivista di Grammatica Generativa* 5: 1–11.

Fábregas, Antonio. 2022. What 1sg forms tell us about Spanish theme vowels. *Glossa: a journal of general linguistics* 7(1): 1–40. https://doi.org/10.16995/glossa.7932

Gouskova, Maria & Jonathan Bobaljik. Forthcoming. Allomorphy and Vocabulary insertion. En A. Alexiadou, R. Kramer, A. Marantz & I. Oltra-Massuet (eds.), *The Cambridge Handbook of Distributed Morphology*. Cambridge: Cambridge University Press.

Halle, Morris. 1997. Distributed Morphology: Impoverishment and Fission. *MIT Working Papers in Linguistics* 30: 425–449.

Halle, Morris & Alec Marantz. 1993. Distributed Morphology and Pieces of Inflection. In K. Hale & S. Keyser (eds.), *The View from Building 20*, 111–176. Cambridge, Mass.: MIT Press.

Halle, Morris & Alec Marantz. 1994. Some Key Features of Distributed Morphology. In A. Carnie & H. Harley (eds.), *MITWPL 21: Papers on Phonology and Morphology*, 275–288. Cambridge, Mass.: MIT Working Papers in Linguistics.

Harley, Heydi. 2014. On the identity of roots. *Theoretical Linguistics* 40: 225–276.

Lamiquiz, Vidal. 1972. *Morfosintaxis estructural del verbo español*. Sevilla: Universidad de Sevilla.

Marantz, Alec. 1996. Cat as a phrasal idiom: consequences of late insertion in Distributed Morphology. Manuscrito: MIT. https://www.academia.edu/17275409/Cat_as_a_phrasal_idiom

Mare, María. 2021. Syncretism of plural forms in Spanish Dialects. *The Linguistic Review* 38/2: 289-314. https://doi.org/10.1515/tlr-2021-2066

Merchant, Jason. 2015. How much context is enough? Two cases of span-conditioned stem allomorphy. *Linguistic Inquiry* 46: 273–303. http://www.jstor.org/stable/43695679

Oltra-Massuet, Isabel. 1999. *On the notion of theme vowel: a new approach to Catalan verbal morphology*. Ph.D. Thesis, MIT.

Oltra-Massuet, Isabel & Arregi, Karlos. 2005. Stress-by-structure in Spanish. *Linguistic Inquiry* 36: 43–84. http://www.jstor.org/stable/4179309

Oniga, Renato. 2014. *Latin. A linguistic introduction*. Oxford: Oxford University Press.

Panagiotidis, Phoevos & Vitor Nóbrega. Forthcoming. Why we need roots in Minimalism. In E. Leivada & K. K. Grohmann (eds.), *The Cambridge Handbook of Minimalism and its Applications*. Cambridge: Cambridge University Press. Disponible en https://lingbuzz.net/lingbuzz/006497

Pato, Enrique. 2010. Linguistic Levelling in Spanish: The Analogical Strong Preterits. *Canadian Journal of Linguistics* 55(2): 209–225.

Pato, Enrique & O'Neill, Paul. 2013. Los gerundios 'analógicos' en la historia del español (e iberorromance). *Nueva Revista de Filología Hispánica* 61(1): 1–27.

Pérez Saldaña, Manuel. 2014. Morphological Structure of Verbal Forms. In I. Hualde, A. Olarrea, & E. O'Rourke (eds.), *The Handbook of Hispanic Linguistics*, 227–246. Oxford: Wiley Blackwell.

Pomino, Natascha & Remberger, Eva-Maria. 2022. Romance Root Suppletion and Cumulative Exponence: Fusion, Pruning, Spanning. *Languages* 7(161): 1–25. https://doi.org/10.3390/languages7030161

Radkevich, Nina. 2010. *On Location: The structure of case and adpositions*. Ph.D. Thesis, University of Connecticut.

RAE-ASALE. 2009. *Nueva gramática de la lengua española*. Madrid: Espasa.

Ramchand, Gilliam. 2008. *Verb Meaning and the Lexicon*. Cambridge: Cambridge University Press.

Roca, Iggy. 2010. Theme vowel allomorphy in Spanish verb inflection: An autosegmental optimality account. *Lingua* 120 (2): 408–434. https://doi.org/10.1016/j.lingua.2009.05.005

Rojo, Guillermo. 1990. Relaciones entre temporalidad y aspecto en español. In I. Bosque (ed.), *Tiempo y aspecto em español*, 17–41. Madrid: Cátedra.

Rojo, Guillermo & Veiga, Alexandre. 1999. El tiempo verbal. Los tiempos simples. In I. Bosque, & V. Demonte (eds.), *Gramática descriptiva de la lengua española*, 2867–2935. Madrid: Espasa.

Siddiqi, Daniel. 2009. *Syntax within the Word. Economy, allomorphy, and argument selection in Distributed Morphology*. Amsterdam: John Benjamins.

Starke, Michal. 2014. Cleaning up the lexicon. *Linguistic Analysis* 39 (1): 245–256.

Vanden Wyngaerd, Guido, Karen De Clercq & Pavel Caha. 2021. Late insertion and Root Suppletion. *ReVEL, edição especial* 19 (18): 81–123.