Some Key Features of Distributed Morphology*

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All approaches to morphology recognize the existence of connections between semantic, syntactic and morphological features, on the one hand, and phonological features, on the other. In Distributed Morphology these connections are implemented by means of units or atoms, which are assigned the structure shown in (1).

1. Basic Unit of Morphology in Distributed Morphology

The Vocabulary Item:

$$\left\{\begin{array}{l}\text{Semantic features}\\ \text{Syntactic features}\\ \text{Morphological features}\end{array}\right\} \leftrightarrow \text{Phonological features}$$

We call the units in (1) "Vocabulary Items." Their counterparts in some other theories are called morphemes or lexical entries, whereas in still other theories the counterparts of our Vocabulary Items can be morphophonological rules, spell-out rules, etc.

Three properties of the Vocabulary Items, taken together, distinguish the theory of Distributed Morphology from other approaches. These are *Late Insertion*, *Underspecification*, and *Syntactic Hierarchical Structure All the Way Down*. Other theories may adopt one or another of the properties, but no alternative endorses all three.

> I. *Late Insertion.* The terminal nodes that are organized into the familiar hierarchical structures by the principles and operations of the syntax proper are complexes of semantic and syntactic features but systematically lack all phonological features. The phonological features are supplied -- after the syntax -- by the insertion of Vocabulary Items into the terminal nodes. Vocabulary Insertion (VI) adds phonological

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* This is a slightly revised version of a paper read at the Symposium on Distributed Morphology held at the annual LSA meeting in Boston, January 8th, 1994. We have resisted the temptation to add any replies to the commentaries that followed the presentation of this work; we prefer this to appear as a record of what was presented. We would like to thank Jim Harris for discussion and help.

MIT Working Papers in Linguistics 21, 275-288
Papers on Phonology and Morphology.

features to the terminal nodes, but it does not add to the semantic/syntactic features making up the terminal nodes.

It is worth noting that in the process of VI the syntactic, semantic and morphological features shown on the left in (1) function as indices that *identify* the Item whose phonological features are inserted into the appropriate terminal node.

Late Insertion contrasts with "Early Insertion" of other theories, where Lexical Entries are combined (e.g., in the Lexicon) and contribute their features to the features of words, which then combine in the syntax. In such theories, the syntactic/semantic features of the terminal nodes are those of the Lexical Entries; terminal nodes have no features independent of the Lexical Items.

II. *Underspecification.* In order for a Vocabulary Item to be inserted in a terminal node, the identifying features of the Vocabulary Item must be a subset of the features at the terminal node. Insertion may not take place if the Item has identifying features that do not appear at the node. The Item need not match every feature specified in the node; rather Vocabulary Items are characteristically underspecified with respect to the features of the nodes into which they are inserted. It is therefore not uncommon for several Vocabulary Items to be available for insertion into a given terminal node. The most highly specified Vocabulary Item whose identifying features are a subset of the features of the terminal node wins the competition and is inserted.

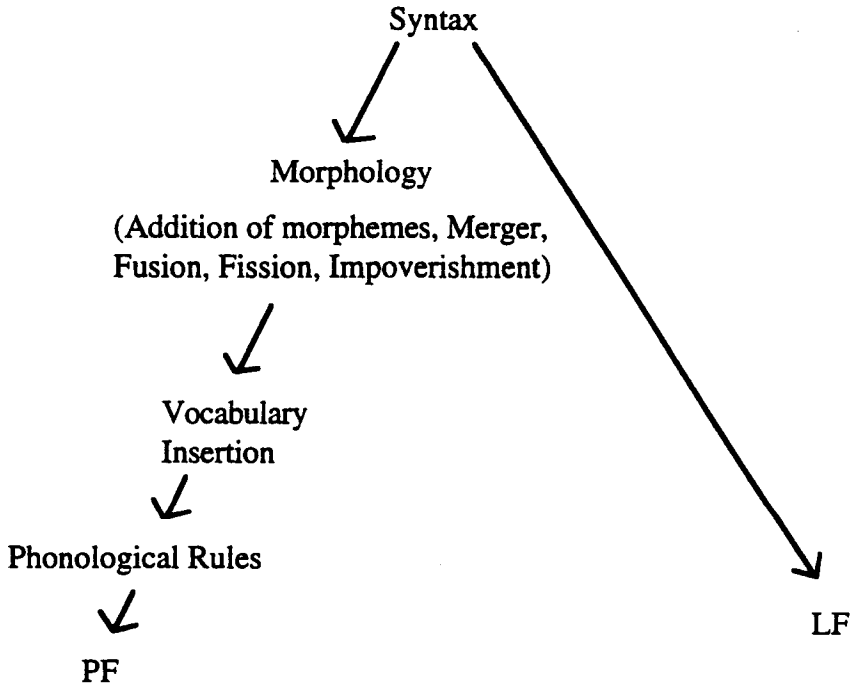
Underspecification contrasts with "Full Specification" in other theories, where Lexical Entries carry all features necessary to fully flesh out the feature structure of a complex word. In such theories, the Lexical Entries do not compete for insertion, but are freely inserted, subject to satisfying the constraints of their subcategorization frames, level ordering, etc.

III. *Syntactic Hierarchical Structure All the Way Down. .* The terminal nodes into which Vocabulary Items are inserted are organized into hierarchical structures determined by the principles and operations of the syntax. As indicated in (2), where we have illustrated the structure of the grammar we endorse, hierarchical structures from the syntax may be further modified in the PF component by morphological operations, but these operations are constrained by strict syntactic locality conditions that require that interacting constituents stand in a government relation with respect to each other or be structurally adjacent. These modifications include syntactic head-to-head movement (Baker 1985) and merger under

> adjacency (Marantz 1988), both of which build words in the syntax. In addition, as described in our paper in the Bromberger volume (Halle & Marantz 1993), morphological operations may fuse into one the features of several nodes, fission those of a given node into a sequence, or add as well as delete particular features or feature complexes. Because these operations are strictly local and respect syntactic hierarchical principles, the hiearchical structure into which Vocabulary Items are inserted deviates only to a limited extent from the one that is syntactically motivated.

This purely syntactic approach to word formation contrasts with approaches where the (apparent) hierarchical structure of words is altogether extra-syntactic, or where it is the result of the operation of blocks of morphophonological rules, or of morphological templates, or of level ordering in the Lexicon, or of lexical subcategorization frames, etc.

2.



Crucial in the grammar in (2) is the placement of VI as an essential step in the phonological realization of a sentence. This placement of VI instantiates what has been called "Separation" by Robert Beard. In Beard's approach — as in (2) — the phonological realization of a sentence is separated from the principles that determine the basic hierarchical structures of the semantic, syntactic, and morphological features in the sentence.

As noted above, for purposes of VI the semantic and syntactic features of an Item in the Vocabulary function purely as identifying indices which allow us to insert the item into a particular terminal node. Since this purpose can be accomplished without the Vocabulary Item containing every feature present in a terminal node into which the Item may be inserted, Vocabulary Items are commonly underspecified. Since a given Vocabulary Item may thus carry only a small number of the features necessary for the syntax and LF, its insertion must logically follow the selection of feature complexes in the syntax. Underspecification thus makes Late Insertion (Separation) mandatory because features that are needed in the syntax and/or LF may be left unspecified in a given Vocabulary Item.

As an alternative to Late Insertion it has been suggested that essentially underspecified Lexical Entries compete *in the Lexicon* for filling out paradigm structures. The underspecified Entries pick up the ability to carry various full sets of syntactic and semantic features by spreading into paradigm cells representing these features. The competition in Distributed Morphology to find the most highly specified Vocabulary Item for insertion under a given terminal node is thus translated into a competition to find the most highly specified Lexical Entry to fill a particular paradigm slot. (See Pinker 1984 for a discussion of the acquisition of morphology employing paradigms in something like this manner). We show below that morphology cannot be paradigmatic in the sense necessary to accomplish this.

In the process of modifying the syntactic structure of a sentence in the morphology prior to VI the feature composition of a particular node may be *impoverished* by the deletion of one or more of its features. It will be recalled that for an Item to be inserted in a node its identifying features must be a subset of the features specified at the node; hence a consequence of deleting features in a node is to take Vocabulary Items specified for the deleted features out of competition for insertion in the node in question.

As an illustration of Impoverishment consider the two Vocabulary Items of Category X in (3a). These compete for insertion at a node of category X in (3b), and the competition is won by Vocabulary Item A because it contains a larger subset of the features in the node X than does Vocabulary Item B. We now postulate that the language is subject to Impoverishment by rule (3c), which deletes F_2 in a node of category X if followed by a node of category Y. The effects of Rule (3c) are illustrated in (3d). Note that impoverishment changes the outcome of the competition. Because F_2 has been deleted, Vocabulary Item A can no longer be inserted in a node X containing the features F_1, F_2, and F_3 as it is in (3b), and the more general, less narrowly constrained Item B will be inserted to express the feature complex F_1, F_2, F_3 under X that is operative in the syntax. We characterize this state of affairs resulting from Impoverishment as *retreat to the general case*, for a more highly specified Vocabulary Item loses out to one that is less specific, more general. In our example, the more highly specified Item A loses out to the more general Item B when the feature F_2 is impoverished in a node X before a node Y.

3. a. *Category X*

Vocab Item A: $[F_1, F_2] \leftrightarrow P_A$

Vocab Item B: $[F_1] \leftrightarrow P_B$

b.
X
|
[F1, F2, F3]

c.

$$F2 \rightarrow \emptyset \;/\; \begin{bmatrix} X & Y \\ | & \\ [\underline{\quad}] & \end{bmatrix}$$

d.

X Y
|
[F1, ~~F2~~, F3]

Impoverishment provides evidence against early insertion. On early insertion theories, Lexical Entries supply the syntactic/semantic features of words needed to create the constituents that operate in the syntax and at LF. Unlike Vocabulary Items in Distributed Morphology, the Lexical Entries of theories with early insertion do not compete with each other for insertion. If one Entry with particular features is prohibited from appearing in a particular position, this does not open up that position for some other Lexical Entry to supply the features of the blocked entry to a possible word. So in cases of Impoverishment, early insertion theories cannot correlate the three facts characteristic of the 'retreat to the general case'. In the schematic example (3), these facts are: (i) Vocabulary Item A is prohibited from appearing under Category X in the environment where Category X precedes Category Y. (ii) It is in this same context that Vocabulary Item B, which normally does not express the features F2 and F3, will be inserted in a node of Category X with these features. (iii) Moreover, Vocabulary Item B is otherwise the least marked or the default Item of Category X. The correlation of these otherwise quite disparate facts is readily accounted for in the manner just sketched. Because the appearance of an affix in a particular environment was blocked by the Impoverishment of one of he identifying features of the affix, the affix was automatically replaced by the "default" affix, i.e., by the affix whose contextual restrictions on insertion are less severe. Theories that lack Late Insertion and Underspecification cannot account for the correlations just noted.

We illustrate the role that Underspecification and Impoverishment play by a a brief survey of some aspects of the behavior of pronominal clitics in Spanish, following here with some deviations the as yet unpublished work of our department colleague Jim Harris, who in turn builds on earlier work of Eulália Bonet. The chart (4) represents the different pronominal clitics of the language in terms of the morphological categories that each represents. The forms in (4) are those of Peninsular Spanish ("REF" in (4) stand for "Reflexive"). Many Latin American dialects differ from (4) only in systematically lacking the 2. Person Plural forms; these dialects are discussed at a later point in this paper.

4.

		3Pers		2Pers	1Pers
		m	f	m/f	m/f
ACC	Sg	l-o	l-a	t-e	me
	Pl	l-o-s	l-a-s	o-s	n-o-s
DAT	Sg	l-e		same as above	same as above
	Pl	l-e-s			
REF	Sg/Pl	s-e		same as above	same as above

As shown in (4) many of the clitics are multiply ambiguous. In fact, in the nine cells that make up (4) only the cell in the upper left contains the full complement of four phonetically distinct forms.

Before describing our treatment of these ambiguities we draw attention to an important innovation introduced by Harris, and graphically implemented in (4). In a radical departure from previous treatments of pronominal clitics Harris attributes to the clitics — which belong to the category of Determiners — the same internal structure as to ordinary nouns and adjectives. Spanish nominals have the tripartite constituent structure illustrated in the forms cited in (5); i.e., every nominal consists of a stem followed by a Theme which in turn is followed by a number affix. A shown in (5), the number affix may be realized phonetically as zero, as of course may any terminal node.

5.

	Stem	-	Theme	-	Number	
a.	padr	-	e	-	s	*fathers* (masc)
b.	madr	-	e	-	Ø	*mother* (fem)
c.	poet	-	a	-	Ø	*poet* (masc)
d.	pal	-	a	-	Ø	*shovel* (fem)
e.	pal	-	o	-	s	*sticks* (masc)

The choice of Theme is an idiosyncratic property of the stem. We follow Harris in designating nouns taking /e/ as their Theme as belonging to Class III, nouns with /a/ as their Theme as Class II, and nouns with the Theme /o/ as Class I,

the default Class. We postulate therefore the Vocabulary Items in (6) as competing for insertion in the Theme morpheme:

6.

		Theme	
		|	
/e/	↔	____	in environment governed by [Class III]
/a/	↔	____	in environment governed by [Class II]
/o/	↔	____	in environment governed by [ ]

We assume further that nouns such as *padre* and *madre* include in their Vocabulary entry the information that they belong to Class III in addition to information about their Gender, Animacy and other morpho-semantic properties. This class information is not predictable from other features of these items. Nouns belonging to Classes I and II differ from those belonging to Class III in that there Theme Class is normally predictable from their gender. Theme Class information is therefore not included in the entries for most nouns (the majority of nouns are of Class I and II). Theme class information must, however, be included for such Class II nouns as (5c) *poeta* because its masculine gender would otherwise lead us to predict that it belongs to Class I rather than Class II.

By contrast, (5d) *palo* 'stick' and (5e) *pala* 'shovel' have no inherent information about Theme Class. As a consequence the default Theme /o/ would — according to (6) — be inserted after these stems if nothing else were said. This will evidently not be correct for (5e) *pala* 'shovel.' To obtain the correct insertion for nouns such as *pala*, we postulate the Redundancy rule (7), which supplies Theme class information to nouns of feminine gender *after VI* of such nouns.

7. $[\ ] \rightarrow [\text{Class II}] \ / \ \underset{[+\text{fem}]}{\_\_\_\_}$

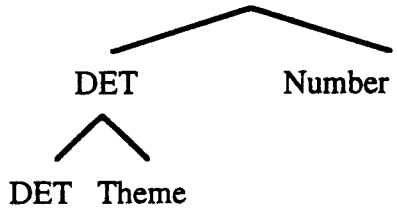
Since (7) is a Redundancy rule, only stems without Theme Class specification will be subject to this rule. (See Halle 1990.) To such stems the rule will assign the feature Class II and as a consequence the Theme marker /a/ will be inserted after these stems.

The same constituent structure as in (5) is transparently present in the pronominal clitics in (4). Notice in particular that the difference between 3. Person Dative and Accusative clitics is one of Theme class. The Dative clitics are Class III, a fact that is formally implemented by the Redundancy rule (8). Rule (8) must apply before rule (7) to assure that the feature [Class II] is not added to Dative feminine clitics before rule (8) has a chance to add the feature [Class III]. We believe that this ordering will be predicted from a reasonable feature hierarchy that treats Case features as more specific than gender features.

8. $[\ ] \rightarrow$ [Class III] / $\underset{\text{Dat}}{\_\_\_\_}$

The Vocabulary items competing for insertion in the stem slot of pronominal clitics are given in (9). As shown in the tree in (9a), we assume that the DET node and the terminal node carrying the [+Pl] feature — Number — form a constituent in the Syntax. In the morphology, as a consequence of a morphological well-formedness condition, a Theme is adjoined to the DET node. In fact, a Theme node is adjoined to every lexical category node in Spanish.The structural relation between the [+Pl] node and the DET node is preserved during this adjunction of the Theme node and thus [+Pl] may serve as a context for the insertion of Vocabulary Items under the DET node, as it does for some of the Items in (9).

9. a.



b.

DET
|

/n/ ↔ [1. Person] / governed by [+Pl]
I

/m/ ↔ [1. Person]
III

{∅ ↔ [2. Person] / governed by [+Pl]}

/t/ ↔ [2. Person]
III

/l/ ↔ [ ] / $\underset{\text{Case}}{\_\_\_\_}$

/s/ ↔ [ ]
III

In addition to Redundancy rules such as (7) and (8), which add new unspecified features, the morphology also includes Readjustment rules, which change previously specified features. Impoverishment or feature deletion illustrated by (3c) is one type of Readjustment rule, perhaps the only type that manipulates morphological features.

The 2. Person Plural clitic /os/ is not used in Latin American dialects of Spanish. In these dialects it is systematically replaced by the corresponding 3. Person clitic. To account for this, we assume that all Latin American dialects are subject to the impoverishment rule (10). They also lack, of course, the bracketed Vocabulary Item in (9).

10. [2. Person] → Ø / governed by [+Pl]

Note that if we had simply removed the 2. Person Plural entry in (9) without also adding the Impoverishment rule (10) we would expect to find /te/ in both singular and plural environments. It is only because of Impoverishment by (10) that /t-/ is taken out of competition for nodes carrying 2. Person Plural feaures and /l-/ is allowed to win the competition. In other words, the Impoverishment rule (10) not only reflects the fact that Latin American dialects have no distinct 2. Person Plural clitic; it also accounts for the fact that this clitic is replaced by the 3. Person clitic rather than by any other pronominal clitic, or by some arbitrary morpheme. Note also that like other 3. Person clitics and unlike its singular counterpart, the erstwhile 2. Person Plural clitic is subject to Case distinctions. No additional machinery is needed for this result; it follows automatically from the application of rule (10). In fact, we would need additional machinery if we wanted to prevent these consequences.

We now turn to a well-known puzzle of Spanish clitics, the spurious *se*. The spurious *se* appears when a 3. Person Dative clitic is adjacent to a 3. Person Accusative clitic. We follow Harris's suggestion that this effect is due to the Impoverishment rule (11) which deletes the Dative feature in a Determiner node when it is governed by an Accusative Determiner node (i.e., when these nodes are in the same clitic cluster).

11. [Dative] → Ø / governed by [Accusative]

A glance at (9) shows that when rule (11) eliminates the Dative feature from a DET node, /l/ can no longer be inserted into the node, since /l/ has a Case feature among its identifying features. This leaves /s-/ as the only candidate for insertion.

We also predict that 2. Person Plural clitics co-occuring with an Accusative clitic should exhibit the spurious *se* in Latin American dialects. Consider now the utterance meaning 'I gave it to you (pl)'. In conservative Peninsular Spanish dialects this will be actualized as (12a), *os lo di.* Its counterpart in Latin American dialects will appear as in (12b), *se lo di.*

12.

a. Ø- o - s l - o - Ø di *I gave it to you (pl)* (Peninsular)
[2Pers] [+Pl] [3.Pers] [-Pl]
[Dat] [Acc]

b. s - e l -o - Ø di idem. (Latin American)

c. [2.Pers] + Theme + [+Pl] [3.Pers] + Theme + [-Pl] di
[Dat] [Acc]

It is readily seen that in a structure like (12c), generated in the syntax, the initial node is subject both to rule (10), which deletes the 2.Pers feature, and to rule (11), which deletes the [Dative] case. VI applying to the initial, Impoverished, Determiner node will then select from the list (9) the last Item /s-/. On the Impoverishment account, the appearance of /s-/ in this environment is completely unsurprising — it follows immediately from the independently motivated impoverishments. From an Early Insertion point of view, this result is mysterious. In (12b) the clitic /se/ appears in an environment where it expresses none of the features needed for interpretation of the sentence, for /se/ generally expresses neither 2. Person nor Dative nor Plural. Given that /les/ is blocked before /lo, los/, an Early Insertion theory might expect to find /te/ here rather than /se/ as the clitic /te/, which is perfectly acceptable before /lo/, at least would express the 2. Person feature. But /te/ cannot appear to express 2. Person Plural in this environment.

The preceding account, which crucially relies on Impoverishment, cannot easily be replaced by one that makes use of the distribution of forms in a paradigm. To see this consider the paradigm of the Latin American clitics given in (13).

13.

<table>
<tr><td></td><td></td><td colspan="2">3Pers</td><td>2Pers</td><td>1Pers</td></tr>
<tr><td></td><td></td><td>m</td><td>f</td><td>m/f</td><td>m/f</td></tr>
<tr><td>ACC</td><td>Sg</td><td>lo</td><td>la</td><td>te</td><td>me</td></tr>
<tr><td></td><td>Pl</td><td>los</td><td>las</td><td>los</td><td>nos</td></tr>
<tr><td>DAT</td><td>Sg</td><td colspan="2">le
se/___Acc</td><td>te</td><td>me</td></tr>
<tr><td></td><td>Pl</td><td colspan="2">les
se/___Acc</td><td>les
se/___Acc</td><td>nos</td></tr>
<tr><td>REF</td><td>Sg</td><td colspan="2" rowspan="2">se</td><td>te</td><td>me</td></tr>
<tr><td></td><td>Pl</td><td>se</td><td>nos</td></tr>
</table>

In the paradigm (13), what should be the least marked Vocabulary Item *se* shows up as the most marked, with special contextual features on its insertion. Leaving this objection to the side, one might attempt to deal with the facts above in the framework of a theory with "early insertion" in the following

manner. One might postulate that the Dative Lexical Entries *le* and *les* are prohibited from occurring before an Accusative clitic. To encode this fact in the paradigm, one would have to split the cells in the paradigm (13) so as to include the context "before the Accusative clitic" as an additional dimension. Now *se* will spread into the new cells as the alternative to *le* and *les* before the Accusative clitic. In addition, something would have to be said about why /te/ doesn't fill in the gap for 2. Person plural Dative when /les/ is prohibited.

While it does not appear impossible that this story might yet be made to work, the account depends on an initial step that can't be taken. As noted above, Harris has shown that clitics have the structure of ordinary nominal words in Spanish. Hence there is no sense in which *le* and *les* are themselves Vocabulary Items whose distributions can appropriately be restricted. The forms instead are composite: they include the stem /l/, the Theme vowel /e/, and the number suffix /s/ or zero. Thus, if Harris is right, there is no "clitic" paradigm over which one might state the generalizations necessary to capture the facts of Impoverishment.

To this point we have presented arguments for two properties of Vocabulary Items within Distributed Morphology: Late Insertion and Underspecification. The third crucial property of DM — Structure All the Way Down — has been assumed, but not explicitly argued for. DM claims that the terminal nodes that serve as the locus of VI are distributed in the grammar according to syntactic principles that refer to these nodes by their category labels. On this point we are in agreement in spirit with Baker, Lieber and Sproat among our panelists. In our paper in the Bromberger volume, we have shown that some reasonable assumptions about the syntax of Potawatomi yield a "syntactic structure all the way down" analysis of the Potawatomi verb that is superior to Anderson's a-morphous alternative.

To illustrate this aspect of Distributed Morphology here, we turn to some additional facts about Spanish clitics that argue strongly for the parallel between word-internal and word-external syntax that DM predicts. For the data and some of the analysis here we rely on recent work by Seth Minkoff (1993). In Spanish imperatives the pronominal clitics follow the inflected imperative verb. The 2. Person Plural imperative ends in the plural suffix /-n/. Thus we get forms such as those in (14a,b). In a certain dialect of Caribbean Spanish, illustrated in (14c), clitics that themselves lack a plural suffix will tuck into the imperative verb between the imperative inflection and the plural suffix. This tucking in is hierarchically displayed in (14d-e), with (14d) the structure provided by the syntax and (14e) the structure generated by the movement of the Clitic cluster. To derive (14e) from (14d), the Clitic cluster, a DET node, adjoins to the terminal AGR node to which it is already structurally adjacent in (14d).

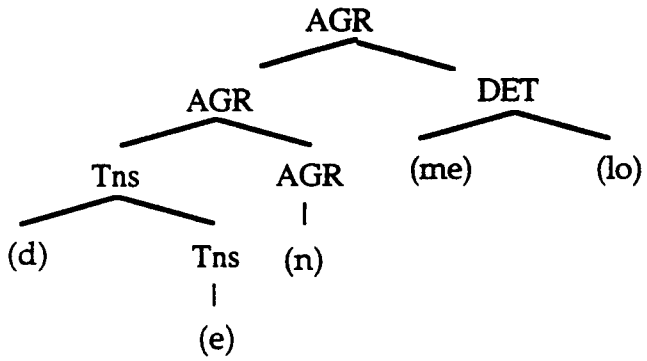
14.

a. d- e- n- l- o- s *Y'all give them (to someone)*
give-imp.-2.Pl-3.Acc-Theme-Pl

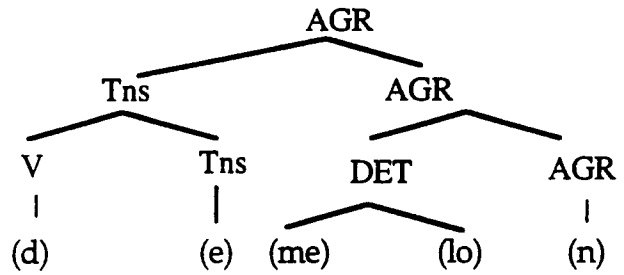
b. d- e- n- m- e- l- o (Standard Spanish)
give-imp.-2.pl- 1.Dat- Theme- 3.Acc-Theme *Y'all give it to me*

c. d- e- m- e- l- o- n (Caribbean Spanish)

d.



e.



The Carribean Spanish example *pon-me-lo* in (15) shows that the tucking in of the clitics is not a prosodic phonological effect. In cases in which /n/ is not the plural suffix, no tucking in takes place in the same dialect that displays (14c).

15. pon-me(-lo) *(you sg.) put (it) for me!*
*po-me(-lo)-n

This behavior of the pronominal clitics and plural inflectional suffix already provides an argument against a-morphous approaches to morphology. On an a-morphous approach, the suffix /-n/ would have no independent status as a unit in the grammar either as a suffix (Vocabulary Item) or as a bundle of morphological features distinct from the rest of the inflected verb. Rather, /n/ would be merely the phonological by-product of a Morphophonological Rule. In addition to causing trouble for a-morphous morphology, the argument from the apparent movement of Caribbean clitics goes even further to argue for a syntactic treatment of morphological structure. The syntactic treatment is

required because the tucking in of the clitics around the imperative plural /-n/ follows the same constraints as the positioning of second position syntactic clitics. Formally, we analyze the movement of the clitic cluster between (14d) and (14e) as the merging of the clitic cluster with an adjacent plural terminal node to the left of the cluster. Merger under adjacency adjoins the clitic to the plural node. Merger occurs before VI. Since Merger is adjunction, the government relation between the verb and the plural node is preserved under merger and the proper plural Vocabulary Item for a 2. Person imperative verb may be chosen in the environment of the 2. Person imperative verb (i.e., the environment in which the plural node is "governed by" 2. Person agreement).

Note that the positioning of the pronominal clitics is driven by the need of the terminal nodes carrying person and case features to appear to the left of the terminal node carrying the plural feature. The tucking in of the clitic(s) around the plural imperative suffix re-creates the usual order of affixes in inflected words, with the plural suffix to the right of other feature complexes. As illustrated in (16), no tucking in occurs when the clitic itself is plural and therefore its person and case features already are to the left of a terminal node with a plural feature.

16.	d-e-n- l-o-s	*de-lo-n-s, *de-los-n
	d-e-n- n-o-s	*de-no-n-s, *de-nos-n
	(d-e-n- n-o-l-o-s	*den-nos-lo, *de-nos-lo-n)

Marantz (1988, 1989) has argued that a "merger" account of second position clitics explains why they obey a "peripherality" constraint — i.e., why they tuck into 2nd position only at the edges of the relevant domains. The Spanish pronominal clitics obey exactly this peripherality constraint. First, the examples in (16) show that a clitic to the left of a plural node won't merge with a plural node to the left of the clitic. Consider also a sequence of /me/ and /los/, as in (17).

17. d-e-n- m-e- l-o-s *de-me-n-los

The terminal node into which /m(e)/ will be inserted could satisfy its need to appear to the left of a terminal node with number by merging with the plural node on the verb, yielding the incorrect **de-me-n-los*. However, /m(e)/ is prohibited from doing so in this context since it does not fall at the right periphery of the relevant domain; instead it falls to the left of the Accusative Plural clitic (where /l/ will be inserted). This is exactly the same peripherality constraint that is evident with phrasal second position clitics and argues that the interaction of terminal nodes within words obeys the same syntactic principles as the interaction of constituents in sentences.[1] Hyman (1991) and Hyman and

[1]The Carribean dialect that Minkoff describes is not the only Spanish dialect that exhibits unusual clitic-imperative interactions in comparison to standard written Spanish. In particular, some dialects show doubling of the plural *-n* in certain configurations and other patterns exist as well. Harris provides an account of one of

Mchombo (1992) argue on other grounds for a similar type of tucking in of affixal morphemes involving derivational morphemes in Bantu languages.

The behavior of pronominal clitics in Caribbean Spanish also provides one last argument against a paradigmatic approach to morphology. In general, interactions at the margins between word structure and syntactic structure reveal that decisions about what belongs in a paradigm and what does not are arbitrary and unenlightening. Should the paradigms of inflected Spanish verbs include all the combination of pronominal clitics that might appear on such verbs? Such paradigms would miss the point that the distribution of morphological material on the Spanish verb follows from the interaction of word-internal and word-external syntax.

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the doubling dialects consistent with the analysis outlined here. We predict the ungrammaticality of examples like ***de-me-n-los***, given the other facts of Carribean Spanish. We do not, however, insist that the Carribean pattern is the only possible one in which the clitics seem to "invade" the inflectional morphology.