

Second Position Clitics in Tagalog

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1 Introduction

In the study of clitics there are, as originally stressed by Arnold Zwicky 1977, two quite distinct notions that need to be disentangled, as in (1).

- (1) **Simple** clitics: prosodically weak elements that form part of a (phonological) word with other material from which they are syntactically distinct.

Special clitics: elements which fill the grammatical function of some specifiable structural element, but appear in an unusual linear or structural position, often one not available to corresponding non-clitic elements.

One understanding of the notion of a ‘clitic’ is represented by traditional views such as that of Wackernagel 1892, for whom a clitic was definitionally a prosodically weak element. Special behavior, including placement in a unique position, might well flow from this fact, but the basic property that makes something a clitic on this picture is the fact that for prosodic reasons it forms part of a word (or other prosodic unit) with other material from which it is syntactically distinct. An item with the property of prosodic dependency, and no other distinctive behavior, is the sort of thing Zwicky proposed to call a *simple* clitic.

We can reconstruct this notion in contemporary terms in the following way: suppose we say that lexical items normally are assigned a full prosodic analysis, with their segmental content organized into syllables, which form parts of feet, which in turn are grouped as a prosodic word. Exceptionally, some elements (including the simple clitics, as well as some of those items which display other unusual properties associated with other senses of the notion ‘clitic’) may be prosodically ‘deficient,’ in that they constitute stray syllables not assigned to feet or feet which have not been assigned the status of words. A variety of phonological principles require that if such material is to be pronounced, it must be incorporated into a

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full prosodic structure. The rule or rules of ‘Stray Adjunction’ which perform this function then describe the phonological dimension of cliticization: the incorporation of a prosodically isolated element into an adjacent pre-existing word.

A second, logically quite distinct dimension of cliticization is exemplified by the large number of studies that have dealt with elements such as the weak or conjunct pronominal forms of the Romance languages. These elements, along with others for which Zwicky proposed the term *special* clitic, are unusual in that, while they seem to fill the grammatical function of some specifiable structural element, they appear in an unusual linear or structural position, often one not available to corresponding non-clitic elements.

The distinction between simple and special clitic elements suggests the existence of two mutually exclusive dimensions of clitic behavior — the phonological and the morpho-syntactic dimensions, roughly. Of course, many special clitics are also prosodically dependent, and thus display the phonological properties of simple clitics as well, establishing the notion that these two dimensions of cliticization are orthogonal rather than mutually exclusive. Not all special clitics are prosodically weak, though, just as not all prosodically dependent elements are syntactically unusual. The properties of being a simple clitic and of being a special clitic are thus quite distinct *per se*, even if they often coincide in the same elements.

In developing a general theory of clitic behavior, then, it is important to attend to both of these aspects of what we (pre-systematically) lump together as “clitics,” and to recognize their potential interaction as well as their potential independence. The system of ‘second position’ clitics in Tagalog provides a particularly interesting and intricate example of this point, and the goal of this paper is to provide an explanatory account of the behavior of these elements.

Tagalog Schachter & Otnes 1972, Schachter 1973 displays clitic elements with two distinct sorts of function, all following the first element of the sentence.

(2) a. **Pronominal clitics:**

	‘Topic’	‘Complement’
1sg	ako	ko
2sg	ka	mo
3sg	siya	niya
dual	kata	nita
1pl (excl)	kami	namin
1pl (incl)	tayo	natin
2pl	kayo	ninyo
3pl	silá	nila
2sg T + 1sg C	ka+ko	→kita

b. ‘Particles’:

ba	(interrogative)	na	‘already’
kasi	‘because’	naman	‘instead’
kaya	(speculation)	nga	‘really’
daw	(reported speech)	pa	‘still’
din	‘too’	pala	(surprise)
ho	(politeness)	po	(politeness)
lamang	‘only’	sana	(optative)
man	‘even’	tuloy	‘as a result’
muna	‘for a while’	yata	(uncertainty)

Note that within the pronominal clitics, there are two sub-sets, depending on the grammatical role of the element they represent. Since the analysis of grammatical relations in Tagalog clause structure is not at issue here, and nothing in particular follows from the terminology, we simply follow Schachter in referring to these as the “Topics” set and the “Complement” set. All of these elements constitute special clitics in the sense introduced above, because they are all subject to a particular regularity in their placement: all come in second position, following the first element of the sentence. When more than one clitic is present, other regularities govern their sequence relative to one another, and these will form the subject of discussion below, but before we can address those issues we must first develop a theory of second position phenomena within which we can understand the overall placement of these classes of special clitics.

2 Background: The Theory of Second Position

We adopt the proposal of Anderson 1992, Anderson 2000 and elsewhere that grammatical clitics, such as pronouns, tense/aspect markers, etc. are phrasal affixes, the overt realization of functional content associated (as features) with a phrasal node such as S (or IP), NP, etc. This move is motivated in part by the extensive similarities between affixal material in words and the way clitics appear within phrases and sentences. These similarities are explored in Anderson 1992, and include the points in (3), among others:

- (3) a. Similar rigidity of ordering
- b. Both can be either affixal or non-affixal
- c. Both make a distinction between ‘inflectional’ (syntactically relevant) and ‘derivational’ (semantically/pragmatically relevant)
- d. The same set of parameters describes in both cases the possibilities for placement (initial, final; post-initial; pre- or post-head).¹

¹There is of course a large theoretical literature on the way clitics, especially ‘second position’ clitics should be characterized with respect to their placement. These include Klavans 1985, Kaisse 1985, Halpern 1992, Inkelas 1989, and Anderson 1993, to cite only a few that have contributed more or less directly to the view

On this approach, where grammatical clitics serve as analogs at the phrasal level to the inflectional morphology of words, the question arises of how the correct surface order of elements is to be derived. In Anderson 1992, it was assumed that the clitics, like word-level affixes, were introduced one at a time by rules; and on that view, an obvious possibility was to relate the linear order of affixes and of clitics to the order of application of the rules that introduced them. In fact, however, there turn out to be problems with this, and a series of papers culminating in Anderson 2000 develops an alternative, based on principles drawn from Optimality Theory (cf. Prince & Smolensky 1993). In OT, descriptive order reflects the ranking of element-specific constraints, rather than a sequence in which the elements are introduced one at a time. Relative ordering results from the fact that where a number of elements should all preferably be located in the same position, the demands of some out-rank those of others.

To treat clitics within the terms of OT, we need to assume that clitic material is introduced within some domain, and then located within that domain so as to conform as well as possible to a system of constraints. In the analysis of second position phenomena, these constraints are of three general types.

First, let us assume there is a family of constraints on morphosyntactic structure (or perhaps PF) **EdgeMost(e,E,D)**, each of which says that the element **e** should be as close to the edge **E** (Left or Right) of the domain **D** as possible. Depending on the value of the edge parameter “**E**”, I will refer to these as **LeftMost** and **RightMost**. A given clitic/affix is characterized as a prefix or as a suffix, depending on whether **LeftMost(cl_i,D)** dominates **RightMost(cl_i,D)** or *vice versa*. The descriptive order of two clitics **cl_i** and **cl_j**, both prefixes or both suffixes, is determined by the dominance relation that obtains between their corresponding **EdgeMost** constraints.

Infixes located with respect to the beginning of the word and second position clitics can be described by saying that the element in question should, on the one hand, be as close as possible to the left edge of its domain (a word or a syntactic constituent); but on the other hand should **not** be absolutely initial. This effect recalls a descriptive generalization known as the Tobler-Mussafia Law, valid for some of the Old Romance languages according to which pronominal clitics cannot appear in absolute sentence-initial position. To describe this, let us assume a second constraint family **Non-Initial(e,D)** each of whose representatives says the element **e** should not be initial within domain **D**.

We characterize a clitic (or affix) **cl_i** as “second position” on this view by saying that **Non-Initial(cl_i,D)** dominates (otherwise high-ranking) **LeftMost(cl_i,D)**. The clitic/affix will then go as far to the left as possible without actually becoming initial: i.e., it will appear in second position.

In some instances, the Tobler-Mussafia effects of **Non-Initial(cl_i)** can be derived without the need to treat them as ‘grammatical,’ since the independently motivated phonology will have this as a consequence. This is the case in Warlpiri, for example. In this language, auxiliary clitics are located in either first or second position within the clause. The principle

presented here. See these works for more general discussion and exemplification of the full range of special clitic constructions in natural languages.

that determines the choice is that when the base of the auxiliary is monosyllabic (or \emptyset), the auxiliary follows the first word of the sentence; while if the base of the auxiliary is bi-syllabic, the auxiliary can appear either initially or in second position.

The “minimal word” in Warlpiri, as in most languages, consists of a bimoraic foot, which must therefore (given the absence of heavy syllables in the language) also be bisyllabic. Monosyllabic elements thus cannot be independently footed, and must be treated as prosodically deficient. Assume that Stray Adjunction in Warlpiri always operates leftward; then in order to be incorporated into prosodic structure, a monosyllabic auxiliary base will have to be preceded by some other material. When we say that auxiliary bases are subject to **LeftMost**($\mathbf{cl}_i, \mathbf{S}$), the furthest to the left that they can go is after the first word, if they are to be incorporated into prosodic structure. That accounts for their appearance in second position.

What shows us that it is really the phonology that accounts for the non-initial position of prosodically weak bases is the following additional fact: according to Simpson 1991, even “small” Auxiliary bases can appear in sentence initial position, when the sentence in question is closely preceded in connected speech by other material.

- (4) **Warlpiri:** “. . . in connected speech, monosyllabic AUX bases are found sentence-initially, because the last element of the previous sentence provides a phonological host for the clitics.” Simpson 1991, p. 69

In that case, the auxiliary attaches phonologically to the final word of the preceding sentence. Clearly the relevant requirement on the base is not that it be non-initial within its clause, but that it be located so as to be incorporated into preceding material within a phonological phrase (or some other relevant domain).

Such an account may be available for some languages, but not for all. For instance, some second position clitics in some languages are not prosodically deficient, in which case there is no phonological reason why they could not be initial: it is just a fact that they must satisfy **Non-Initial**($\mathbf{cl}_i, \mathbf{D}$). In some languages, some of the clitics appear in second position, but other (prosodically weak) clitics are allowed to appear initially (e.g., Bulgarian *ne*, *šte* as opposed to others: cf. Legendre 2000a). In such a language, Stray Adjunction must in principle be able to work in either direction and thus cannot replace the constraint **Non-Initial**($\mathbf{cl}_i, \mathbf{D}$) entirely.

In languages for which evidence of the sort found in Warlpiri is not available, then, we will express the notion that an element \mathbf{e} appears in second position within a domain \mathbf{D} by saying that **LeftMost**(\mathbf{e}, \mathbf{D}) is highly ranked within the overall hierarchy of constraints governing PF in that language, but below **Non-Initial**(\mathbf{e}, \mathbf{D}). We have assumed that the domain \mathbf{D} to which these two constraints are relevant is the same, but some “second position” phenomena are somewhat more complex. For instance, Richardson 1997 argues that in Czech, second position clitics are subject to **LeftMost**(\mathbf{e}, \mathbf{IP}) but are required to be **Non-Initial**(\mathbf{e}, \mathbf{CP}). Since the left edges of IP and CP generally coincide in main clauses, this difference only shows up when other material, such as certain topicalized elements, is part of CP but external to IP. Such examples are part of the reason we analyze second position as resulting from the

interaction of two constraints, rather than from a single constraint alone.

The next issue that arises in connection with second position clitics is that of just how much material appears to their left. In some systems, this is exactly one syntactic constituent, while in others it is a single word. Assume a third type of constraint, **Integrity(Word)**, requiring that material not be introduced inside an existing word when that material does not represent part of the content of that word.

In practically all languages, this constraint is undominated. A possible exception to this ranking is Pashto, about which there is some controversy: see Tegey 1977, van der Leeuw 1995, 1997 and references cited there; as well as Roberts 1996 for a different view. As a result, where **Integrity(Word)** prevails, there will always be at least one word between a second position clitic and the left edge of the phrase. The only way there could be less would be by violating either **Integrity(Word)** or **Non-Initial(cl_i, D)**; but by assumption both of these dominate **LeftMost(cl_i, D)**. On the other hand, given high ranking **LeftMost(cl_i, D)**, the only way there could be *more* than one word before the clitic would be if some other, even higher-ranking constraint required it.

We then describe cases where “second position” means “after the first phrase” by generalizing the notion of Integrity to a constraint family, the most inclusive instantiation of which is (unqualified) **Integrity(XP)**, requiring that phrases not properly contain elements that are not members of that phrase. In some languages, some phrasal types may be more ‘permeable’ than others, requiring a more

specific parameterization of the class of phrases whose interruption counts as a violation of **Integrity(XP)**.

Now suppose that **Integrity(XP)**, like **Integrity(Word)**, is undominated in some language. In that case, the earliest that “second position” can come is after the first phrasal daughter of the containing domain, and so that is exactly where second position clitics will lodge. That shows us how to describe each type of “second position”: in languages where this means “after the first phrase,” **Integrity(XP)** is undominated. In languages where it means “after the first word,” on the other hand, **Integrity(Word)** is undominated, but **Integrity(XP)** is dominated by the **LeftMost(cl_i, D)** constraints for the various clitics, meaning that their desire to get to the left can violate phrasal (but not word) integrity where necessary.

Integrity(Word) and **Integrity(XP)** are obviously variations on a single theme: constraints to the effect that material cannot be properly contained within a domain unless it represents a member or element of that domain. **Integrity(C)** is a family of constraints, where **C** ranges over prosodic and syntactic category types. Given that, as noted above, the class of constituent types displaying such effects differs to some extent from language to language, we need to assume that ‘C’ in **Integrity(C)** is parametrically variable.²

²Notice that we have explicitly provided for the possibility that the domains in question may be defined either syntactically or prosodically. The same is true, in principle, for the domains within which constraints of the **EdgeMost** and **Non-Initial** families are applicable. There may well be generalizations that restrict some of these constraints to one sort of domain or the other, as argued (*mutatis mutandis*) in Zec & Inkelas 1990, but we neglect that refinement here.

The theory of clitics (especially second position clitics) outlined above is significantly different from the more standard assumption that these are syntactically autonomous elements that are placed by rules of the syntax. These two points of view have been contrasted in previous work (such as Anderson 2000), and the plausibility of the theory defended here has been further supported by its application to a variety of linguistic systems. In particular, work by Legendre in a series of papers (2000b, 1998b, 2000a, 1998a) has pursued essentially the same approach, yielding important insights into the clitic systems of several Balkan languages. Legendre’s work is explicitly related to that discussed here, and shares with it the central assumption that in order to achieve the potential benefits of an OT-like description, it is essential to treat the clitics in question as phrasal affixes rather than as syntactic heads.

2.1 Clitics in Tagalog

On the basis of this overall view of second-position, we can now proceed to the specific properties of the Tagalog clitics mentioned earlier. The overall framework for the description of clitics proposed above attributes their complex surface properties to the interaction of (individually quite simple) principles from a number of areas of grammar: at least phonology, morphology, and syntax. The analysis of the Tagalog clitics illustrates virtually the full range of considerations that can interact in determining the placement of clitics.

We note at the outset that the property of appearing in second position characterizes particular clitics in Tagalog, and not the entire language: it is not the case, that is, that all phonologically weak elements appear in this position (as Wackernagel assumed in his 1892 analysis of the early Indo-European languages), since Tagalog also has a set of sentence-final particles *a*, *e*, *ha*, *o* Schachter & Otanes 1972, pp. 461–463.

When more than one of the second-position clitics is present in a sentence, their relative ordering is governed by a set of principles that have been the subject of some subsequent discussion. The basic ordering regularities are the following:

- (5) a. Monosyllabic members of the set of pronoun clitics (i.e., the monosyllables in (2a)) always precede particles (the elements listed in (2b)).
- b. Particles have an internal ordering among themselves.
- c. Particles always precede disyllabic pronoun clitics.

Within each of these three sets, there is a fixed relative ordering. In the case of the two subsets of pronominals, this ordering is presumably stipulated by the ranking of corresponding **LeftMost** constraints, since it does not appear to follow from any more general principles. In the case of the Particles, there is also a determinate ordering among the elements. These fall into several subclasses, whose relative order we presume can be made to follow from a combination of semantic scope and language-particular stipulation, much like the relative order of derivational elements in morphology, though we do not attempt to develop the relevant principles here.

There is some agreement in the descriptive literature, such as Bloomfield 1917 and Schachter & Otanes 1972, that these clitic elements generally follow the first stress-bearing word of the sentence, though there are as usual some complications in this picture. The examples that are most directly consistent with this simple picture involve clitics that appear to interrupt otherwise unitary constituents so as to come after a single sentence-initial word:

- (6) Ganu =ka =na =ba kakinis?
 how you already INT clever
 How clever are you now? —Bloomfield 1917, p. 143

On the other hand, there are various constructions consisting of more than one phonological word that do not get broken up Schachter & Otanes 1972, pp. 187ff: proper names, numerical expressions, times of day, ages, amounts of money, etc.:

- (7) Bukas ng gabi nang alas otso =siya aalis
 tomorrow night at eight o'clock he leaves
 It's tomorrow night at eight that he's leaving — Schachter & Otanes 1972, p. 188

These facts are described by Schachter & Otanes 1972 as based on treating certain construction types, the ones they call “obligatory non-pre-enclitics,” as uninterruptable. In the present theory the expression of this uninterruptability is an appropriately parameterized high-ranking **Integrity** constraint. I have nothing particularly illuminating to say here about why some constructions have this property while others do not. Where a sentence-initial constituent can be interrupted, **Integrity(Word)** in combination with **NonInitial(e,D)** nonetheless prevents the clitics from appearing any further to the left than after the initial word, as in cases like (6).

One further refinement relates to the domain in which the clitics are placed, and involves the fact that “second position” sometimes has to be within a domain that excludes certain preposed, focused constituents. This point will be further discussed below; for now let us simply assume that the domain within which some element appears in ‘second position’ is that within which it is introduced, which follows (in some way) from its grammatical properties. These complications do not affect the major points to be made below, however: what matters is that ‘second position’ has the same basic sense for all of the elements in (2).

Tagalog clitics pose problems of varying severity for an account based on purely syntactic mechanisms. First, there is the usual difficulty of placing clitics “after the first word,” a notion that does not have a natural reconstruction in terms of those parts of grammar that normally deal in terms of phrases as basic elements. This is especially true if the relevant notion of ‘word’ is a phonological one, which would result in difficulties for a principle of “Phonology-free Syntax” Pullum & Zwicky 1988. A more serious problem is that of deriving the regularities of order among clitics. If these are as stated in (5) above, it is not clear how they are to be described syntactically at all.

This matter is the subject of Schachter 1973: the problem is that the order appears to depend on the phonological property of how many syllables a given clitic has, and syntactic

rules, even of the sort one accepted back in 1973, ought not to have access to the specifics of the phonological realization of elements they affect. But how can this be avoided? Note in particular the portmanteau element *kita*: this clitic represents the combination of a 2sg.Topic and a 1sg.Complement, and replaces the expected sequence *ka+ko*. Each of the latter elements individually is monosyllabic, and thus should precede any particles (by 5a), but when they come together, the combination is replaced by a disyllabic portmanteau which must *follow* particles (by 5c). Even a set of rules that place the pronouns (as syntactic elements) one by one, and that treats the length regularities as accidental, will fail in this case.

Schachter 1973 evaluated several brute force solutions to these difficulties utilizing re-ordering transformations, and showed that they either fail altogether, or at least fail to capture the generalization about length. His own proposal, following Perlmutter's 1971 analysis of French and Spanish clitics, is a surface constraint: a template explicitly stipulating that monosyllabic pronouns precede particles, which in turn precede longer pronouns:

$$(8) \text{Pro}_{1\sigma} < \text{Particles} < \text{Pro}_{2\sigma}$$

This, he suggests, could serve either to filter the output of a general scrambling rule or else to linearize elements at surface structure. Such a description would at least allow us to STATE the regularity about syllable structure, but note that it does not EXPLAIN either of the relevant facts: (a) monosyllabic pronouns come first; and (b) otherwise, pronouns come after particles. Subsequent work (e.g., Kroeger 1993) similarly leaves this pattern as a matter of stipulation.

In Anderson 1992, I noted that an explanation of the fact that at least most of the pronouns follow particles might be derived from the analysis of clitics as sentential morphology. Within words, derivational morphology comes 'inside of' inflectional morphology. If we ignore the monosyllabic pronouns for the moment, and think of clitics as suffixes to the first word or phrase, then we could say the ordering of particles before pronouns reflects the same regularity: particles have various semantic and pragmatic content, and are thus "derivational," as opposed to pronouns, which are (on this analysis) agreement markers, and thus "inflectional." It would be natural for pronominal elements to be suffixed outside of particles, then, and thus to follow them.

What accounts for the extension of the "derivation inside of inflection" theorem from morphology to the description of clitics? In the word-internal case, this follows (as argued in Anderson 1992) from the place of lexical insertion in a grammar, given the nature of (productive) inflection. In the case of clitics, the corresponding result probably also follows from the architecture of grammar.

Adopting the overall terms of Chomsky 1995, chap. 4, we might consider the introduction of semantically contentful particle clitics to be a generalized instance of the operation "Merge." In the development of complex syntactic structures, the usual step consists of merging a word (taken from the structure's Numeration) with (some part of) an existing syntactic structure. In some instances, though, I suggest that the way "Merge" works is to introduce some affix-like material (rather than an autonomous word) into the structure.

If we suppose, as seems natural, that all instances of this generalized “Merge” operation must be completed prior to the point at which clausal agreement-like material has to be realized phonologically, the particle clitics will all be in place at the point where the structure exists to support the introduction of grammatical (pronominal) clitics. As a result, ‘grammatical’ or ‘inflectional’ clitics (such as the Tagalog pronominals) will be introduced ‘outside of’ semantically and pragmatically contentful (or ‘derivational’) elements such as the Tagalog particles.

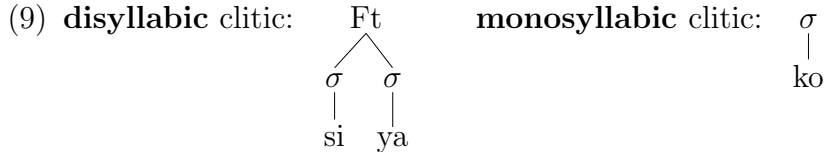
Obviously, this involves a certain amount of serialism in the overall derivation of a sentence — a notion which is not fundamentally at odds with the invocation of principles from OT to describe what happens at a given stage of the derivation, though it IS at odds with the common (but incorrect) assumption that constraint systems must always involve a single monolithic collection of constraints applied in parallel. A similar point is developed in a much broader context in Kiparsky to appear, where it is suggested that much of the non-monolithic architecture of Lexical Phonology is in fact perfectly consistent with the basic insights of a constraint-based approach such as OT.

But what about the syllable-length regularity? If the explanation just offered is correct, it is clearly an embarrassment to have some “inflectional” clitics coming inside of the “derivational” ones. In Anderson 1992, I proposed to treat this by saying that the monosyllabic clitics are introduced by “head-inflection” rules, as opposed to all the others, which are “word inflection.” This analysis, however, still misses the fact that the difference depends on prosodic size. In a step backward from Schachter’s analysis, it does not even state this fact, let alone explain it.

Is it possible to eliminate this anomaly? Suppose that the relation between particles and disyllabic pronouns does indeed follow from an appropriate generalization of the “derivation precedes inflection” theorem. That is, all of the derivational clitics are already in place, attached to their host, at the point the pronominal ones are introduced. The difference between principles (5a) and (5c) must then follow from some other aspect of the grammar of clitics. Where might it be appropriate to locate a difference between the behavior of disyllabic and monosyllabic clitics? Since the difference is itself phonological, the obvious place to look is in the phonology.

Let us suppose that monosyllabic and disyllabic clitics differ in the way they undergo Stray Adjunction; and that this difference interacts with the system of constraints determining their behavior as second position elements to yield the observed placements.

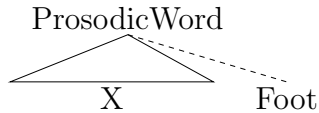
As in most languages, the minimal foot in Tagalog is bi-moraic. As a result, disyllabic pronominal clitics (and particles) are prosodically complete enough to be structured as feet. Monosyllabic pronominals, on the other hand, are monomoraic, and thus cannot constitute feet on their own: they are simply stray syllables. Both are ‘simple’ clitics, however, in the sense introduced in the initial section of this paper, since they are not phonological words, and so both types must be incorporated into an adjacent word by Stray Adjunction.



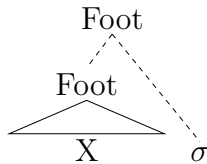
How are these orphan elements to be provided with homes: I.e., how does Stray Adjunction operate? Suppose we say, in the spirit of the widely accepted Prosodic Hierarchy of Nespor & Vogel 1986 and other work, that a stray foot can (and must) be incorporated into the prosodic word to its left, while a stray syllable is adjoined to a foot on its left. The pronouns are true second position clitics: that is, they are subject to high-ranking **LeftMost** and **NonInitial** constraints while not being allowed to violate a variety of **Integrity** constraints. In particular, lexical items are Integral in this sense, as well as various uninterruptable phrasal types that we noted above.

Stray Adjunction thus presents two cases:

- (10) a. **Stray Foot Adjunction:**



- b. **Stray Syllable Adjunction:**

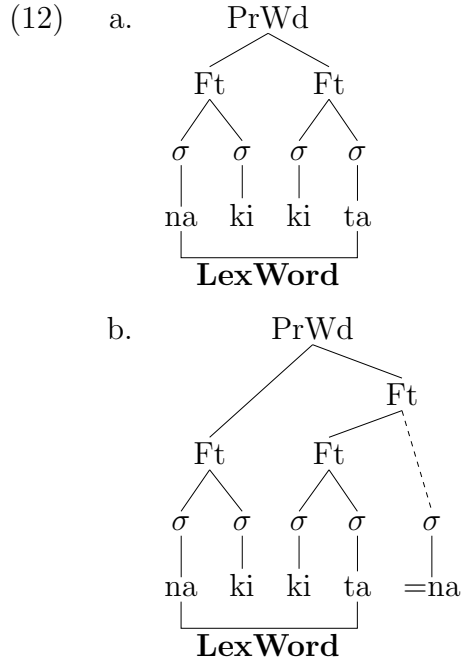


The difference between incorporation (in the Foot case, 10a) and adjunction (in the case of stray syllables, 10b) in these rules follows from the well-known fact that the internal constituency of feet is rather narrowly constrained, while phonological words are somewhat more open-ended and display an organization that is flatter and internally more homogeneous.

To see how this provides an account of our problem, consider a sentence such as the following, with a monosyllabic clitic, a particle, and a disyllabic clitic, in that order.

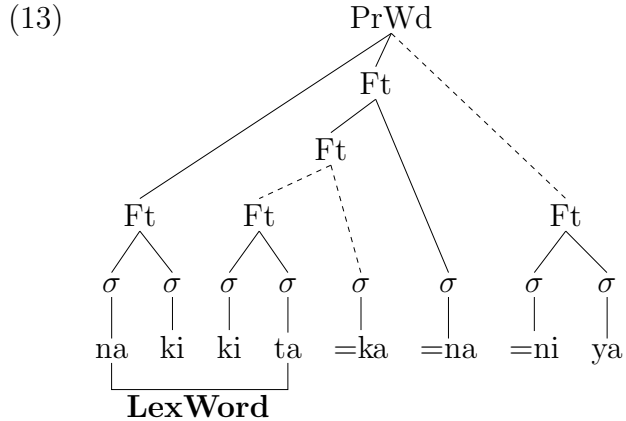
- (11) *nakikita* =**ka** =**na** =**niya**
 sees you (sg.) already he
 He sees you (sg.) now.

In the construction of this phrase, we begin with a sentence-initial host consisting of a single word *nakikita*. Within the syntactic system, this comes to be followed by a particle =**na** as a consequence of the application of ‘derivational’ cliticization. The structure in (12a) thus becomes that of (12b) at the output of the syntax.



We then add the pronominal clitics. When the pronoun is disyllabic, it must be parsed as a foot, and thus has to follow the entire lexical word plus particle sequence. The latter is (as a whole) a phonological word (perhaps derived by previous instances of Stray Adjunction incorporating particle clitics into the word defined by the host). The clitic must follow this entire sequence because (by rule 10a above) the only place where a foot can undergo Stray Adjunction is at the right edge of a Phonological Word.

Where the pronominal clitic is monosyllabic, on the other hand, it is only a syllable, not a foot. Potentially it can (and thus, by **LeftMost**, must) be placed further to the left within the word. These clitics must be placed at the right edge of a foot, so that they can undergo Stray Adjunction by rule (10b). They must also not violate higher ranking **Integrity** constraints, including the integrity of lexical words, but they must otherwise be as close as possible to the left edge without being initial. As a result of the interaction of these factors, they will lodge at the right edge of the leftmost foot that is not properly included within a lexical word (or other integral domain). This means, in particular, that they appear to the left of the particles. These two types are shown below in (13).



We have assumed here that the added monosyllable **=ka** is simply adjoined to innermost foot within the already complex foot $[_f [_f ki ta] \text{---} =na]$. Depending on the details of stress contours in such a configuration, we might well replace this analysis with one where the two adjoined syllables are restructured to establish a new foot of their own, yielding the following structure:

(14) $[_{PrWd} [_f na ki] [_f ki ta] [_f ka na] [_f ni ya]]$

We do not attempt to develop the mechanical details of this refinement of our proposal here, but they do not appear to present conceptual problems.

The phonology of Stray Adjunction, then, taken together with the constraints that define second position, can actually *explain* why monosyllabic clitics behave differently than disyllabic ones. It is important to note that this result depends crucially on the constraint-based approach adopted here. That is, on the present picture, instead of specifying a unique position in hierarchical (or linear) structure in which clitics are generated or to which they move, the present analysis says that clitics are attracted as far to the left of the relevant domain as possible, subject to the higher-ranking requirement that they not be absolutely initial. The definition of ‘second position’ that results is a consequence of the interaction of a number of other effects (especially the details of the language’s phonology and of the relevant **Integrity** constraints). Since these factors play out differently in the cases of monosyllabic and of disyllabic clitics, these elements appear in different positions, in ways that could not be described adequately by syntactic mechanisms *per se*.

To this point, we have assumed that the Tagalog clitics—particles and pronouns alike—are to be characterized collectively as ‘second position’ elements in the sense that for each clitic cl_j there is a constraint **NonInitial**(cl_j , **D**) outranking an otherwise highly ranked constraint **LeftMost**(cl_j , **D**). We noted in an earlier section, however, that in some languages (e.g. Warlpiri), the ‘NonInitial’ effect results not from an independent constraint, but rather from phonological requirements alone. Could this be the case for the Tagalog clitics?

A difference between the effects of **NonInitial**(cl_j) and the phonological behavior at issue might be explored if we could find a circumstance where the domain in which some clitic is subject to **NonInitial**(cl_j , **D**) is closely associated phonologically with preceding

material. In that case, if the situation is in fact similar to that in Warlpiri, we might expect that the clitic would appear initially within the domain D; while if **NonInitial**(cl_j , D) in fact outranks **LeftMost**(cl_j , D), the clitic should continue to be post-initial within D.

It is always difficult to be absolutely certain that the phonological adjacency necessary to establish this kind of situation is in fact met, but there is one construction in Tagalog that appears to provide us with evidence of the type we seek. A range of inversion constructions (described by Schachter & Otanes 1972, pp. 485ff.) involve the movement of a topical constituent to an initial position, presumably Spec_{CP}. When this happens, there may be a pause between the topic phrase and the rest of the sentence (which would, we assume, block stray incorporation of an IP-initial clitic); but there need not be, especially in the case where the topic is marked by the element *ay* (presumably in C). It would appear that this preceding phrase would provide an appropriate prosodic host for an IP-initial clitic, if the latter element were not subject to **NonInitial**(cl_j , IP), parallel to the facilitating role of a preceding connected sentence in Warlpiri. In such sentences in Tagalog, however, a pronominal clitic continues to appear in second position within IP, as in example (15) below.

- (15) Ang sulat ay tinanggap =**ko** kahapon
 the letter *ay* received 1sg yesterday
 I received the letter yesterday Schachter & Otanes 1972, pp. 486

This is at least weak evidence that the position of pronominal clitics is in fact governed by high-ranking grammatical constraints of the type **NonInitial**(cl_j , IP). Furthermore, there is **no** evidence similar to that found in Warlpiri which would argue that this phenomenon is purely phonological in origin.

When we consider corresponding data involving particle clitics, however, a rather surprising fact emerges. Consider the following pair of sentences:

- (16) a. [_{CP} [_{IP} sasayaw =**ba** =**sila** ng pandanggo
 dance Q they fandango
 bukas ng gabi?]]
 tomorrow night
 Will they dance a fandango tomorrow night?
- b. [_{CP} bukas =**ba** ng gabi 'y [_{IP} sasayaw =**sila**
 tomorrow Q night *ay* dance they
 ng pandanggo?]]
 fandango
 Will they dance a fandango tomorrow night?

In sentence (16a) we see the particle *ba* preceding the pronoun *sila* ‘they’ as expected, both coming in second position. In sentence (16b), however, where the phrase *bukas ng gabi* ‘tomorrow night’ appears in fronted topic position, the two clitics are separated. *Sila* appears

as expected in second position within the nucleus of the clause, but *ba* appears within the topic phrase.

We cannot account for the facts in (16) by saying that particles, unlike pronouns, are not subject to **Non-Initial(cl,IP)** and are only constrained to be non-initial by phonological factors. If that were the case, we would expect the particle to appear at the left edge of IP, as in the ungrammatical (17):

- (17)*_{CP} bukas ng gabi 'y [_{IP} =ba sasayaw =sila
tomorrow night ay Q dance they
ng pandanggo?]]
fandango

Will they dance a fandango tomorrow night?

The fact that the particle appears embedded within the phrase *bukas ng gabi* (following its first word) shows that it must in fact be located with respect to the left edge of a larger, including constituent (probably CP). In non-topicalized main clause constructions, the left edges of IP and CP will coincide, and so the particles and the pronouns will form a single sequence located in the same “second position.” Where there is a preposed topic phrase, however, the difference between the two domains is revealed and the clitics become separated.

One group of particles behaves like *ba* in (16) above, coming inside the topic phrase. Other particles, however, behave like the pronouns in always appearing within IP, such as *lamang* in the sentences in (18):

- (18) a. [_{CP}[_{IP} sasayaw =lamang =sila ng pandanggo
dance just they fandango
bukas ng gabi]]
tomorrow night
They'll just dance a fandango tomorrow night
- b. [_{CP} bukas ng gabi ay [_{IP} sasayaw =lamang =sila
tomorrow night ay dance just they
ng pandanggo]]
fandango
They'll just dance a fandango tomorrow night
- c.*_{CP} bukas =lamang ng gabi ay [_{IP} sasayaw =sila
tomorrow just night ay dance they
ng pandanggo]]
fandango
They'll just dance a fandango tomorrow night

It seems, then, that the particles fall into at least two sub-classes, one of which is subject to high-ranking **NonInitial(cl,CP)** while the other is subject to **NonInitial(cl,IP)**. This

difference is a property of the particles as grammatical elements, and does not follow simply as a consequence of their phonological form. According to Schachter & Otanes 1972, pp. 429ff., the particles that behave like *ba* in (16) include both monosyllabic elements (*ba*, *man*) and bisyllabic ones (*kasi*, *kaya*). Similarly, the set that are excluded from sentence-initial topic phrases includes not only bisyllabic particles like *lamang*, *muna* but also monosyllables (*na*, *pa*).

A third subset, including both monosyllabic and bisyllabic items, can appear in either position, depending (apparently) on considerations of semantic scope.³ If this speculation is indeed correct, it points the way to the essence of the differences we are examining here. Assuming that particles are introduced within a domain that constitutes their scope, as we might wish if the operation **Merge** is to be semantically compositional, we could say that the relevant **LeftMost** and **NonInitial** constraints are relativized to the same domain. Since the domain of introduction of pronominal elements is presumably uniformly IP, their placement in second position within IP is consistent with this account.

It seems, then, that we have no evidence in favor of the notion that the non-initial position of any of the Tagalog clitics follows from phonological considerations alone. Instead, each clitic's location is governed by the interaction of appropriate **LeftMost** and **NonInitial** constraints, relative to the grammatical domain (either IP or CP, depending on the clitic) within which it is introduced. The suggestion of Legendre 1998a that Tagalog clitics are placed in second position within a phonological constituent (specifically, a phonological phrase) rather than a grammatical one is thus not supported.

Tagalog thus presents a particularly interesting and intricate illustration of the interaction of a variety of factors in determining the exact location of 'second position' clitics:

- (19) a. A Constraint system, including
- i. '**LeftMost**' alignment constraints;
 - ii. '**Non-Initial**' alignment constraints within an appropriate domain (IP or CP);
 - iii. Hierarchical ranking of alignment constraints for specific clitics;
 - iv. **Integrity** constraints, which characterize uninterruptible sub-parts of a domain and thus define what counts as occupying 'first' position
- b. An architecture of grammar in which 'derivational' clitics result from an operation of **Merge**, while 'inflectional' ones realize the functional categorial morphology of phrases and clauses; and
- c. Phonological effects, in particular the details of Stray Adjunction phenomena.

This complex picture has a natural place within a theory that draws on the basic ideas of Optimality Theory, such as that pursued in the research program summarized in the introductory sections of this paper.

³See Condoravdi & Kiparsky 1998 for a discussion of the interaction of scope with alignment constraints in the placement of affixal material in the Tagalog word.

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