Rigidity versus Relativity in Adverbial Syntax:
Evidence from Tagalog

Daniel Kaufman

Two diametrically opposed stances have emerged from recent theoretical
debates on adverbial syntax. One approach, represented by Alexiadou
(1997) and Cinque (1999), espouses a rigid hierarchy of functional
projections hosting individual adverbs. The other, represented broadly by
Jackendoff (1972), McConnell-Ginet (1982) and most recently Ernst (2002),
takes adverb placement to be determined by the semantics of the adverbs
themselves as opposed to the functional architecture of the clause. Under the
latter view, adverbs may be divided into several categories based on their
meaning with each category being licensed in a certain range within the
sentence. Here, I undertake a detailed examination of Tagalog adverbs and
compare the predictions of the two best articulated recent theories of
adverbs, that of Cinque (1999, 2004) and Ernst (2002). The results offer
support for some of the basic predictions of the semantically based approach
of Ernst. Particularly important are scopal facts which do not obtain a clear
explanation under a functional projection-based theory such as Cinque’s.

1. Two theories of adverbs compared

Because proponents of both theories considered here employ certain ad-
hoc mechanisms for handling exceptions – and are thus able to achieve
similar empirical coverage – *naturalness* must figure prominently as an
evaluation metric.¹ Since each theory is suited to naturally handle a well
circumscribed set of phenomena the theories under consideration must be
evaluated in terms of how well the *core predictions* are corroborated by the
data. For the purposes of this chapter I will refer to the Alexiadou-Cinque
theory as the *Rigid Approach* and Ernst’s theory as the *Relative Approach.*²
1.1. Fundamentals and predictions of the Rigid Approach

Cinque (1999) bases his proposal on the notion that adverb order is much stricter than can be predicted by scopal properties and semantic domains. He offers evidence to show that ordering relations between adverbs are fixed and transitive. That is to say, if the linear relations between adverbs A, B and C are such that A>B and B>C then it is possible to conclude that A>C.

Two central tenets of Cinque’s proposal are: (i) Adverbs are not adjuncts but rather specifiers within an array of strictly and universally ordered functional projections; (ii) Each adverb corresponds to an inflectional head which carries an analogous meaning. Thus, the same order is reflected by verb morphology.

Strong evidence for the specifier hypothesis is the relation between single adverbs and the verb in several Romance languages. In these languages, the verb may appear on differing sides of an adverb based on whether the verb is finite, infinitival, participial, etc. This suggests that the verb crosses certain adverbs when raising to an inflectional head. This phenomenon appears to require a purely syntactic explanation since scopally, verbs are not often found to interact with single adverbs in the same way that multiple adverbs interact with each other.\(^5\)

In support of a Spec-Head relationship between adverbs and verbal morphology, Cinque offers data from a wide range of languages to show that the order posited for adverbs is reflected (in reverse) in the domain of the word. Thus, an aspectual adverb is found in the specifier of a functional projection such as PerfectiveP while its corresponding verbal affix constitutes the head of this phrase.

Unexpected surface orders (i.e. those not corresponding to the underlying hierarchy of FPs) result from one of the following (Cinque 1999: 3–4): (i) “When an AdvP directly modifies (is the specifier of) another AdvP.”; (ii) “When a lower portion of the clause (containing an AdvP) is raised across a higher AdvP (for focus-presupposition requirements).”; (iii) “When one AdvP is wh-moved across another.”; (iv) “When one and the same AdvP can be ‘base generated’ in two different positions in the clause (one of the two positions to the left, and the other to the right of another AdvP).”; (v) “When a non-inherently ‘focusing’ AdvP (e.g. probably) is used as a ‘focusing’ adverb (like only and simply).”; (vi) “When an adverb is used parenthetically.” As Cinque notes, (iii) and (vi) are uncontroversial because they are apparent from surface form and tied to more general phenomena. The other exception-creating circumstances, however, are more contentious in that they are less detectable and more specific to adverbs.

The core predictions of the Rigid Approach may be summarized as the following: (i) Ordering of adverbs should be highly restricted both cross-linguistically and within single languages; (ii) Deviant orders should show the hallmarks of XP movement to a higher Spec of a functional projection (esp. FocP, TopP); (iii) Scope may often not correspond to linear order since there need not be a direct link between the scope of an adverb and its position in relation to other elements.

To give an example of what prediction (ii) entails, we can observe the following two locality arguments presented by Cinque (2004) (citing Rizzi 2002). First, in Italian movement of adverbs to the pragmatically unmarked ModifierP (Rizzi 2002) appears to be subject to Relativized Minimality effects (1-2).\(^5\)

1. Rapidamente, qualcuno farà sparire i documenti.
   ‘Quickly, someone will make the documents vanish’

2. *Rapidamente, qualcuno probabilmente farà sparire i documenti.
   ‘Quickly, someone will probably make the documents vanish’

Second, this displacement appears to be clause-bounded (3) (Cinque 2004: 703 ex. 39–41), unlike topicalization and focalization (4-5) (we return to this data in section 4).

   ‘Quickly, I think that someone will make the documents vanish.’

4. Rapidamente, credo che nessuno farà sparire i documenti.
   ‘Quickly\(_{Top}\), I think that nobody will make the documents vanish.’

5. *RAPIDAMENTE, credo che qualcuno farà sparire i documenti.
   ‘Quickly\(_{Top}\), I think that someone will make the documents vanish.’

In regard to prediction (iii), Cinque suggests that adverbs take scope from their base position and that adverbs which show variable scope have multiple base positions (Cinque 1999: 25–28). Thus, allowing for movement, support for the Rigid Approach should consist of cases where ad-
verbs can obtain several scopal interpretations from a single position in the linear order and conversely, from the absence of syntax-scope pairings that cannot be derived from the underlying order (see section 3.2 below).

1.2. Fundamentals and predictions of the Relative Approach

Ernst (2002) develops a theory of adverbs in the former tradition of treating them as adjunctions. Applying a more articulated theory of propositional semantics (based largely on Parsons 1990), Ernst is able to restrict the positions of adverbs according to what type of event type they may modify. These types are referred to as Fact-Event-Objects (FEOS) and are treated as the semantic arguments of adverbs. Based on their semantic class, adverbs are specified to take particular FEO types and are capable of shifting that type as a result of composition. Composition is a step-wise process and layers are added under syntactic sisterhood. The basic FEO types / layers employed are the following (see Ernst 2002, Parsons 1990 for precise definitions):

(6) Speech-Act > Fact > Proposition > Event > Specified Event

The constraints on how these types combine, together with ostensibly universal syntactic principles, are understood to be responsible for the distribution of adverbs within the clause. An adverb may be adjoined freely in the syntax but will be uninterpretable if it cannot access the semantic layer it requires from its position in the sentence. This happens, for instance, when a lower level adverb (e.g. Manner) is composed after a higher level adverb (e.g. Speech Act). A bare verb is associated only with the lowest FEO type which must eventually be built into a Speech Act by the point that the sentence is complete. The correspondence between syntactic phrases and FEO types need only be constrained minimally. Adverb scope is handled via the following Scope Principle: “An operator A has scope over an operator B in case A c-commands a member of the chain containing B.” (Ernst 2002: 317).

Assuming the possibility of right adjunction, adverbs are thus expected to show concentric scope effects around the verb. Total symmetry is mitigated by several factors. One is the special syntactic status of clausal predicational adverbs (e.g. “Clearly, he’s not in the building.”). According to Ernst, clausal predicational adverbs are subject to the same syntactic restrictions as predicational heads and thus follow similar ordering principles. This accounts for the fact that these adverbs regularly precede the verb cross-linguistically. Non-predicational adverbs are not bound by such syntactic restrictions and therefore display a wider range of potential positions.

Adverb movement falls under the scope of more generally accepted cases of movement such as topicalization, wh-movement, clefting, etc. Under this view, then, there is no independent motivation for adverb movement and thus it should not be considered a separate “type” of movement on par with those mentioned above. Nor should there exist special phrases to host adverbs such as Rizzi’s (2002) ModifierP. For Ernst, the only strict correspondence between FEO types and specific syntactic projections is that only event-internal modification is possible within the “L-syntax” (i.e., corresponding to VP pace Hale & Keyser 1993). This entails that adverbs adjoined within VP can only receive limited interpretations (e.g. manner, measure).

Ernst proposes a semantically motivated taxonomy of adverbs which have their own FEO selection requirements and which may yield different FEO types upon composition. For example, epistemic adverbs such as probably may be represented as [FACT,ADV[PROS]] indicating that they take a Proposition as their complement and yield a Fact (a Proposition whose truth is asserted, cf. Parsons 1990).

The building up of propositions and the composition of adverbs follows the FEO calculus. The primary principle of this is that any FEO type may be freely converted to a higher FEO type but not lowered (Ernst 2002: 50, 2004: 761). In principle, the FEO type of a sentence fragment may be lowered through composition but this is very rare. In general, adverbs and operators either raise the FEO type or maintain it. Because the FEO type may be freely raised without overt operators, an adverb that selects for a higher FEO type such as Fact or Speech-Act need not occur at a syntactically designated peripheral position but can rather be accommodated in more internal positions through FEO type raising (modulo VP-internal positions, the domain of event-internal modification).

The manner / evidential ambiguity with adverbs such as clearly as in (7) results from the fact that manner adverbials are composed via the Manner Rule. This is a rule which obligatorily applies to predicational adverbs within L-syntax and which may optionally apply to constituents of the Event type (although a clausal reading is preferred outside of VP).
(7) John clearly saw everything written on the chart.

The relevant predictions of the Relative Approach are summarized as the following: (i) An adverb that selects for a lower FEO type should not appear higher than one which selects for a higher FEO type; (ii) The positions in which an adverb is licensed should constitute a contiguous range w.r.t. non-FEO-type changing material; (iii) Adverb scope should be reflected by surface order in a concentric fashion with the predicate as the center due to the symmetric manner in which semantic layers are built in the FEO calculus.

2. Tagalog adverbs

Tagalog offers a good testing ground for the predictions of the two theories as the syntactic position of Tagalog adverbs is elucidated by several overt markers which are used to introduce them (cf. Schachter and Otanes 1972: Chap. 6).

Adverbs modifying the lower FEO types are marked with nang, the same particle employed to introduce internal arguments. Manner and frequency adverbials are typically introduced in this way as seen in (8). The position of the manner adverb in (8) is free within the post-verbal domain. The various positions are interpreted uniformly (although the "focus set" in the sense of Reinhart 1995 may differ).

(8) a. P hindi siya pumasa–pasok sa klase. usually TOP NEG 3SG.SUB (AV) PROG–enter OBL class
   'Usually, he doesn’t come to class.'

b. Malamang ay nan-daya si la. probably TOP AV.PRF–cheat 3PL.SUB
   'They probably cheated.'

Whereas we see from the above that adverbs may be marked like arguments, it is also possible to introduce adverbs in the same way as adjectives, that is, directly adjacent to the modified head with the linker na-/ . Compare (11a) and (11b).

frequent LNK NMLZ–rain frequent LNK (AV) PROG–rain
   'Frequent rain' 'It rains frequently.'

When adverbials are attached with the linker, phrasal arguments may not generally intervene between the adverbial and the verb, as in (12).

(12) *? Pumasa–pasok ang abogadong madalas
   (AV) PROG–enter SUB lawyer.LNK often

Adverbial notions are also often introduced syntactically as predicate adjectives (13). Strictly speaking, these should not be considered adverbials since such constructions are indistinguishable from non-verbal predications. However, the fact that certain adverbial notions are regularly expressed in this way merits mention.

(13) Malinaw na mag–sa–salita si la sa miting.
clear COMP AV–IRR–speak 3PL.SUB OBL meeting
   'Clearly, they will speak at the meeting.' (or, 'Its clear that…')

Other adverbs may be introduced into the clause without any marker at all. These adverbs are typically mono-morphemic and are often optional second position clitics. The adverb uli ‘again’, (14), exemplifies this class.

(14) Beinjatikos (uli) siya (v) ng mga guro (v)
   (PV) PRF–criticize again 3SG.SUB GEN PL teacher
   'He was criticized again by the teachers.'
Finally, there is a class of aspectual, mood, evidential and functional adverbs which are robust clitics restricted to appearing in second position (15). Certain members of this class, such as sana ‘OPT’ (15c), may also appear in topic position.

(15) a. Bumwalik na nga po pala siya!
   (AV.PRF) return already EMPH POL SURP 3PL.SUB
   ‘They really already returned!’

b. Mag-ta-tagao pa rin ba kay a kay o?
   AV-IRR- hide still also Q RHET 2PL.SUB
   ‘I wonder, will you still hide?’

c. (Sana ay) gumradweyt (sana) siya ngayon.
   OPT TOP (AV.INF) graduate OPT 3SG.SUB now
   ‘Hopefully, he’ll graduate.’

We are now in a position to look at the relation between adverb types and positions in Tagalog. Sentences (16a-d) show the positional possibilities of an ambiguous clausal / manner adverb.

(16) Malinaw ‘clearly’:

(i) Manner reading – [SPEC EVENT ADV [SPEC EVENT]]
   a. [TP Kumoa-kanta, ka; [VP ti ti nang malinaw]]
      (AV PROG-sing 2SG.SUB nang clear
      ‘You’re singing clearly.’ (≠ ‘Clearly, you’re singing.’)

(ii) Evidential reading – [STATE ADV [FACT]]
   b. [TP Malinaw kanga; [VP kumoa-kanta, ti ti]]
      clear 2SG.SUB:LNK (AV PROG-sing
      ‘You’re singing clearly.’ (≠ ‘Clearly, you’re singing.’)

c. [TOP Malinaw ay [TP kumoa-kanta, ti ti]]
      clear TOP (AV PROG-sing 2SG.SUB
      ‘Clearly, you’re singing.’ (≠ ‘You’re singing clearly.’)

d. [TP Malinaw [CP na [TP kumoa-kanta, ti ti]]]
      clear COMP (AV PROG-sing 2SG.SUB
      ‘Clearly, you’re singing.’ (≠ ‘You’re singing clearly.’)

The adverb in (16a) represents the nang (internal argument-like) attachment showing that only a manner reading is possible from this position; (16b) shows the adverb in the verb-adjacent, adjective-like position; (16c) exemplifies the adverb in topic position; and finally in (16d) an adverbial meaning is obtained through an adjectival predicate with a clausal complement. Note that there is a difference in the readings between (16a-b) on the one hand and (16c-d) on the other hand. In the former group the adverb can only obtain a manner interpretation while in the latter group the adverb can only obtain a clausal interpretation. Generally, the argument-like nang attachment of adverbs necessitates a “lower” reading (e.g. manner, measure, frequency).

The positional possibilities for a modal adverb are shown in (17a-d).

(17) Malamang ‘probably’:

a. * [TP Kumoa-kanta; siya; [VP ti ti nang malamang]]
   (AV PROG-sing 3SG.SUB nang probably
   ‘You’re probably singing.’

b. * [FOCP Malamang siyang; [TP kumoa-kanta; ti ti]]
   probably 3SG.SUB:LNK (AV PROG-sing
   ‘Probably, he’s singing.’

c. [TOP Malamang ay [TP kumoa-kanta; siya; [VP ti ti]]]
   probably TOP (AV PROG-sing 3SG.SUB
   ‘Probably, he’s singing.’

d. [TP Malamang [CP na [TP kumoa-kanta; siya; [VP ti ti]]]]
   probably COMP (AV PROG-sing 3SG.SUB
   ‘Probably, he’s singing.’

Table 1 (see next page) shows a summary of the possible positions for the adverb classes discussed here (m = manner reading; c = clausal, epi = epistemic, deo = deontic).

What emerges clearly from Table 1 is that the clause appears to be bifurcated at the edge of TP. Differences in interpretation and grammaticality are found to relate to the boundary marked by the topic position. As seen in (a-c), manner readings are only found within TP. The deontic reading of modals is at least favored if not obligatory within TP while a number of adverbs cannot appear within TP at all.

The facts in Table 1 support two of Ernst’s claims: manner readings are restricted to (but free within) a lower domain and that clausal predicative adverbs are linearized in relation to their FEO complements in accordance with the general head-complement pattern of head-initial languages. This latter claim is supported by the fact that clausal interpretations can only be obtained in a peripheral position, preceding the entire TP complement.12
Table 1. Summary of adverb type-position relations

<table>
<thead>
<tr>
<th>[TopP ADV ay] [TP ADV (clitic)] [VP nang ADV]</th>
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</thead>
<tbody>
<tr>
<td>a. Measure</td>
</tr>
<tr>
<td>i. lubusan ‘completely’</td>
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<tr>
<td>*</td>
</tr>
<tr>
<td>b. Pure manner</td>
</tr>
<tr>
<td>i. mahigpit ‘tight(ly)’</td>
</tr>
<tr>
<td>* m</td>
</tr>
<tr>
<td>c. Manner / clausal</td>
</tr>
<tr>
<td>i. malinaw ‘clear(ly)’</td>
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<tr>
<td>c m</td>
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<tr>
<td>ii. bigla ‘suddenly’</td>
</tr>
<tr>
<td>c m</td>
</tr>
<tr>
<td>d. Exocomparative</td>
</tr>
<tr>
<td>i. ganito ‘like this’</td>
</tr>
<tr>
<td>c m</td>
</tr>
<tr>
<td>e. Subject oriented</td>
</tr>
<tr>
<td>i. kusang-loob ‘willingly’</td>
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<tr>
<td></td>
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<tr>
<td>f. Functional–quantificational</td>
</tr>
<tr>
<td>i. uli ‘again’</td>
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<td></td>
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<tr>
<td>ii. madalas ‘often’</td>
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<tr>
<td></td>
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<tr>
<td>iii. kadalasan ‘most often’</td>
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<td></td>
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<tr>
<td>g. Modal</td>
</tr>
<tr>
<td>i. dapat ‘should’</td>
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<tr>
<td>epi deo</td>
</tr>
<tr>
<td>ii. malamang ‘probably’</td>
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<tr>
<td></td>
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<tr>
<td>h. Speech act</td>
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<tr>
<td></td>
</tr>
<tr>
<td>i. sa madaling salita ‘briefly’</td>
</tr>
</tbody>
</table>

3. Evidence for Relativity

While the facts shown in the previous section suggest a good deal of freedom, they do not provide an iron-clad argument for relativity in and of themselves since there always exists the possibility of movement. In this section I will provide evidence showing that certain ungrammaticalities in Tagalog not predicted by the Rigid view cannot be explained by resort to common constraints on movement.

3.1. Syntactic locality versus the FEO calculus

As seen above, a frequency adverb such as madalas ‘often’ may be introduced in several different positions in the clause without a change in the basic meaning (18).

(18) a. 〈Umowa-ulang nang madalas dito. 〈AV>PROG–rain nang often here
‘It rains often here.’

b. 〈Madalas ay 〈umowa-ulang dito. 
often TOP 〈AV>PROG–rain here

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(18) a. 〈Umowa-ulang nang madalas dito. 〈AV>PROG–rain nang often here
‘It rains often here.’

b. Madalas ay 〈umowa-ulang dito. 
often TOP 〈AV>PROG–rain here

c. Madalas na 〈umowa-ulang dito. 
often LNK 〈AV>PROG–rain here

Crucially however, these positions are limited with the presence of another adverb. The modal clitic adverbs sana ‘hopefully’ and yata ‘perhaps’ appear in the second position of the clause as in (19a) and (19b).

(19) a. Bumisita sana si Juan. 〈AV.PRF>visit OPT P.SUB J.
‘Hopefully, Juan visited.’

b. Bumisita yata si Juan. 〈AV.PRF>visit EPST P.SUB J.
‘Perhaps Juan visited.’

Whereas a frequency adverb such as ‘often’ may be found in topic position when it occurs alone as in (18b) above, the presence of a modal adverb seems to block the possibility of madalas in topic position as seen in (20).

(20) a. Madalas ay 〈umowa-ulang sana si Juan. 〈AV.PRF>visit P.SUB J.
‘Juan visited often.’

b. *Madalas ay 〈umowa-ulang sana si Juan. 〈AV.PRF>visit OPT P.SUB J.

That this is not a categorical constraint on the co-occurrence of these adverbs is seen from (21) where the frequency adverb is attached within TP.
(21) Bu\'m\'visita (sana / yata)si Juan nang madalas.
(AV, PRF) visit OPT EPST P.SUB J. nang frequent
’(Hopefully / perhaps,) Juan visited often.’

Unlike the similar examples in (1-5) above cited by Cinque (2004), no
elegant Relativized Minimality appears possible here. First, however these
adverbs are characterized, it is doubtful that yata can be the same kind of
element as madalas since madalas can appear in a spec position, e.g. as a
topic in (20a), and may be modified, while yata cannot (masyadong
madalas ‘too often’, but *masyadong yata). Second, as a prosodically
placed second-position clitic, yata is ordered at PF and therefore should
not interfere with syntactic movement.

These facts are expected under Ernst’s analysis which does not rely on
movement but rather on the FEO calculus to rule out sentences such as
(20b) and (20c). Specifically, the presence of modal adverbs (yata, sana)
convert the FEO type to Fact while a frequency adverb (madalas) requires
a lower type (e.g., Event / Proposition). The prosodic domain within which
the clitics are positioned is the TP, excluding the Topic. It is therefore un-
ambiguous that the adverb in topic position must be composed after clitics
within TP.

3.2. Concentric scope phenomena

Key evidence for Ernst’s theory comes from facts about relative scope, in
particular, data which shows that outer adverbs tend to scope over inner
adverbs on both sides of the predicate and have ambiguous scope relations
when flanking the predicate. The predictions of symmetric semantic com-
position are borne out by the Tagalog data with one caveat which leads us
to revise Ernst’s original theory.

Observe the relative scope of bigla ‘suddenly’ and lagi ‘always’ within
the TP (22) (see next page). When both adverbs precede the verb, the
leftmost adverb must scope over the adverb to its right. This is trivially
predicted by most theories of adverbials. What is not handled equally well
though is the derivation of the ambiguity in (23) (next page), where two
adverbs “sandwich” the predicate. This shows that adverb scope does not
necessarily abide by an asymmetric left-to-right hierarchy.

(22) a. Biglang laging na-lu-lungkot si Juan
suddenly:LNK always:LNK STA-PROG−sad P.SUB J.
’Suddenly, Juan is always sad.’
(‘suddenly>always; *always suddenly)
b. Laging biglang na-lu-lungkot si Juan
always:LNK suddenly:LNK STA-PROG−sad P.SUB J.
‘Juan is always suddenly sad.’
(*suddenly>always; v always suddenly)

(23) Biglang na-lu-lungkot si Juan lagi
suddenly:LNK STA-PROG−sad P.SUB J. always
’Suddenly, Juan is always sad.’ or ‘Juan is always suddenly sad.’

The similar English sentences in (24) (Andrews 1983) have been widely
discussed in relation to this type of ambiguity.

(24) a. John twice intentionally knocked on the door.

   (twice>intentionally)
b. John intentionally twice knocked on the door.

   (intentionally>twice)
c. John knocked on the door intentionally twice.

   (twice>intentionally)
d. John knocked on the door twice intentionally.

   (intentionally>twice)
e. John intentionally knocked on the door twice. (ambiguous)

Andrews suggests that the interpretive differences are a result of V’
adjunction in combination with the rule, “Apply an adverb to what it is
sister of”. Cinque (1999: 25) reanalyses the original adunction derivation
along the lines of his functional projection theory. To capture the scope
facts, Cinque posits the existence of two separate base positions for twice,
a higher position with an “iterative” meaning, indicating several events,
and a lower position with a “repetitive” meaning, indicating several
repetitions within a single event. These meanings are retained regardless of
movement. The base positions of the adverbs are seen in (25) while the
derivations in (26) show how the relative scope between these adverbs is
determined.

(25) John (twice)_{TR} [XP intentionally [\_\_\_\_\_\_\_\_knocked (twice)_{REP} on the door ]]
(26) a. John twiceITR [ intentionally knocked on the door ] (24a)
b. ?? John intentionally twiceITR knocked on the door (24b)
c. John [ [ knocked on the door ], intentionally t1], twiceITR t1 (24c)
d. John [ knocked [ on the door ], twiceREP t1], intentionally t1 (24d)
e. John [ intentionally [ knocked on the door twiceREP ] ] (24e)
f. John [ intentionally knocked on the door ], twiceITR t1 (24e)

Free phrasal movement should derive all the possible readings and none of the unattested readings but several problems show this is not so straightforward. First, (26b) is not given a clear explanation. Markedness aside, (26b) strongly tends to be interpreted as intentionally>twice. Cinque, however, is forced to derive this with low-scope twiceITR because movement of twiceREP to the left of the verb does not fall into any of his categories of permitted adverb movement (cf. section 1.1). To get the correct order, intentionally is generated as a “framing adverb” in the left periphery, the subject then moving around it. It remains unclear how the correct interpretation is derived and what other adverbs may be subject to a “framing adverb” analysis. Another problem is that (26d) is incorrectly predicted to be scopally ambiguous. If the YP in (25) can raise above twiceITR (as claimed) then both interpretations are predicted to be available depending on which twice is present.

(27) John [ knocked [ on the door ], (twice)REP t1 ], (twice)ITR intentionally t1

By positing the two projections above for twice, Cinque seems to mistake a simple scope alternation for an orthogonal distinction in frequency. The reason that twice>intentionally may be confused with an iterative meaning is that it implies two separate intentions and thus two separate events. The opposite scope, intentionally>twice, cf. (24d), contains no such implication and thus is ambiguous in terms of a single versus double event of knocking. Crucially though it is not ambiguous in terms of scope. In other words, regardless of whether John’s intention was to knock twice in one event or once in two events, it was his intention to knock twice. Furthermore, the time interval that is supposed to distinguish between a single event and double event reading is independently indeterminable and has no consequence for truth conditions in the absence of additional scope sensitive material.

This approach also requires positing multiple phrases for each of the numerous adverbs that display concentric effects (e.g. almost, again, always etc.). Naturally, this leads to an enormous array of projections with essentially redundant content. Finally, we also must explain why the higher twice is marked in its base position even for the iterative meaning (“John twice knocked on the door”). Unmotivated movement of the VP plus PP constituent is necessary to derive the unmarked order for the same reading (“John knocked on the door twice.” [2 events]).

A free adjunction analysis complemented by a theory of semantic domains or layers avoids the above problems. One difficulty for such an approach, noted by Cinque, is that the symmetry in adverb interpretation is not absolute. Andrews (1983) notes that (28) tends strongly towards the interpretation twice>intentionally. Similarly, the Tagalog (29) tends towards the suddenly>often reading.

(28) John twice knocked on the door intentionally.

(29) Biglang na-lu-lungkat si Juan nang madalas.
    suddenly:LNK STA-PROG=sad P.SUB J, nang often
    ‘Juan is suddenly sad often.’ (suddenly>often)

Ernst (2002: 157) accounts for this tendency as the result of a left-to-right bias in processing but does not offer much discussion. The principle is that when two adverbs sandwich the verb the leftmost tends to take higher scope. Although this suggestion appears plausible at first, we find that precisely the reverse is expected under processing account. It is important to keep in mind that the type of scope discussion here is essentially unrelated to that which is used in reference to quantificational items. While scope as used in relation to quantifiers may be closely related to specificity, the scope under discussion here simply refers to the order of semantic composition. Thus, the notation “suddenly>often” as in (29) indicates that often composes with the predicate first and suddenly composes with the constituent including both the predicate and often. Therefore, to say there exists a left-to-right bias in processing a sentence like (29) amounts to positing an opposite (i.e. right-to-left) bias in semantic composition because it is, in fact, the first adverb encountered which tends to be composed last. If processing is responsible for a bias in interpretation, we would expect to find a garden path effect with the first constituent encountered being composed first, as in (30). But this is not the dominant reading.
Thus, as a strictly linear phenomenon this explanation is unlikely. However, as a hierarchical phenomenon this effect is not at all unexpected if we take certain rightmost adverbs to be VP-internal. If this is correct then we need only state that VP-internal material is composed prior to that which is VP-external; a claim which is already implicit in Ernst’s Scope Principle (see section 1.2 above).

This incidentally receives strong support from analogues on smaller levels of constituency. As noted by Wechsler (1989), word-internal adverbials are generally composed prior to word-external adverbials as seen with re- in (31).14

(31) a. John reswan the English Channel with flippers. (PP>re-)  
    b. John swam the English Channel with flippers again. (again>PP)  
    c. He rewrote everything precisely. (precisely>re-)  
    d. He wrote everything precisely again. (again>precisely)

3.3. Prosody and constituency in concentric phenomena

The prosody of English wide-focus sentences also suggests that certain postverbal adverbs are VP-internal while others are not. Assuming that prosodic prominence correlates in some way with embeddedness (Cinque 1993) we find that, in a wide focus context, manner adverbials, for instance, receive phrasal prominence in sentence final position while temporal adverbs, for instance, do not (see also Jackendoff 1972).

(32) a. John sang LOUDLY.  (OK as wide focus)  
    b. John sang today.  (OK as wide focus)  
    c. John sang loudly.  (not wide focus)  
    d. John sang today.  (not wide focus)

Furthermore, we see that, in both English and Tagalog, manner adverbs depend on the presence of a verb while temporal adverbs do not. Compare (33a) and (33b).15

(33) a. Kape ulit / ngayon / na?  
    ‘Coffee again / now / already?’  
    b. *Kape nang mabulis?  
    coffee nang quick  (cf. *Coffee quickly?)

It should come as no surprise then that these differences have scopal consequences in addition to the syntactic and prosodic ones noted above; a point which seems to have escaped notice. The following sentences, which are both wide-focus, are unambiguous in terms of adverbial scope.

(34) a. Kim intentionally coughed LOUDLY.  
    (✓ intent>loudly; *loudly>intent)  
    b. Kim intentionally COUGHED just now  
    (*intent>now; ✓ now>intent)

It seems then that the “left-to-right effect” is more a product of the postverbal adverb than the preverbal adverb. Specifically, subject-oriented adverbs and manner-adverbs in post-verbal position tend strongly to compose with the verb before preverbal adverbs of any type, as seen in (35).

    ✓ almost / always / twice / again > intent;  
    ?? intent > almost / always / twice / again)  
    b. John almost / always / twice / again won easily.  
    ✓ almost / always / twice / again > easily;  
    ?? easily > almost / always / twice / again)

To make these judgments concrete we can observe the apparent contradiction of (36a) in comparison to (36b). If (36a) were fully ambiguous, we should be able to obtain the reading in (36b).16

(36) I still can’t manage to win, but I’ve gotten to the point where I can…  
    a. %…almost win easily.  b. …easily almost win. (easily>almost)

When the postverbal adjunct is not restricted to the VP domain, as with repetitive again, we find the usual ambiguity where the postverbal adjunct has the option of composing after the preverbal one. The contextualized sentences in (37) and (38) show that both readings are possible. The ambiguous (a) sentences require the scope in their unambiguous (b) versions to be felicitous.
(37) The first time Razan won was an accident but then…
a. …she intentionally won again. (ambiguous)
b. …she won again intentionally. (intentionally>again)

(38) Tina said she would start playing seriously but I think…
a. …she intentionally lost again. (ambiguous)
b. …she lost intentionally again. (again=intentionally)

The role of focus in the relative scope of adverbs is discussed briefly by Phillips (2003) (see also Haider 2000). He contends that apparent rightward scope is an artifact of the sentence final intonation which may induce focus readings on adverbs when they occupy the appropriate position. Ernst (2002: 183–186) shows that this argument is difficult to uphold in the face of conflicting data but does not elaborate on the role of phonology in disambiguation. It is clear, however, that certain prosodic features do correlate with certain scopal readings. I suggest that it is prosodic phrasing and not focus which is the key determinant. First of all, as Ernst notes, it is not clear that focus has a raising effect at all. Work on quantifier and indefinite scope (Dings 1992: Sec. 2.6) in fact suggests that the opposite is true: focus has a lowering effect on constituents at LF. More importantly, if it is phrasing and not focus which is responsible for disambiguation we have an explanation for why the same effects cannot be duplicated in preverbal positions. If focus induced wide scope on adverbs then we would expect the opposite judgments for (39a) and (39b) where the context requires the scope: almost=intentionally.

(39) a. %John intentionally almost lost, before he realized that wasn’t the game he was supposed to throw.
b. John almost intentionally lost, before he realized that wasn’t the game he was supposed to throw.

On the other hand it is intuitively quite clear that the prosodic phrasing indicated by the parentheses in (40) correlates with the order of composition.

(40) a. John (intentionally knocked)(twice). (twice=intentionally)
b. John (intentionally)(knocked twice). (intentionally>twice)

Similar effects can be noted in the attachment ambiguity in the mathematical examples (41). When plus two is phrased separately, it is composed after times two composes with the head noun, four. When it is phrased together, the two prepositional phrases are understood as a single constituent which later composes with the head noun.

(41) a. (Four times two)(plus two). (=10)
b. (Four)(times two plus two). (=16)

We may conclude that the above semantic effects of prosody are tightly constrained by constituency. Different prosodies may indicate different bracketings but crucially, prosody cannot subvert the constituent structure, i.e., prosody cannot force Adv1 to compose before Adv2 in the configuration [Adv1 Adv2 Verb]. This is expected if the phenomenon in question is prosodic phrasing but unexpected were it focus.

3.4. Inner and outer positions in the Tagalog postverbal domain

Certain post-verbal adverbs in Tagalog appear to be VP-internal in being marked with the same marker that introduces VP-internal direct objects (nang), and in being subject to the same extraction constraint on these objects, as shown in (42), cf. (20a).

(42) (*Nang malasas) nag-basa (nang malasas) si Jojo. nang frequently AV.PRF-read nang frequently P.SUB J. ‘Jojo read frequently.’

As in English, whether or not an adverb is VP-internal determines the interpretive asymmetry discussed earlier. Nang-marked adverbs tend to compose earlier with the verb as seen by the tendency to interpret (43) as shown.

(43) Dalawang beses nila akong
two:LNK times 3PL.GEN 1SG.SUB:LNK
sinungil nang di-sinaduya.
<PV.PRF>charge nang accidentally
‘I was charged accidentally twice.’
(<twice>accidentally; ?accidentally>twice)
The other reading is found in (44a) where both adverbs are in clause initial position and in (44b) where both are in clause final position with nang.

(44) a. Di-sinadyang dalawang beses nila
   accidentally:LNK two:LNK times 3PL.GEN
   akong stintingil
   1SG.SUB:LNK (PV:PRF)charge
   ‘I was charged twice accidentally.’ (accidentally>twice)

b. Stintingil nila ako nang dalawang beses
   (PV:PRF)charge 3PL.GEN 1SG.SUB nang two:LNK times
   nang accidentally
   ‘I was charged twice accidentally.’ (accidentally>twice)

The same pattern is exemplified in (45) with the adverbs bigla ‘suddenly’, lagi ‘always’ and madalas ‘often’.

(45) a. Laging na-lu-lungkot si Juan nang bigla.
   always:LNK STA-PROG=sad P.SUB J. nang suddenly
   ‘Juan is always suddenly sad.’
   (√always>suddenly; ?suddenly>always)

b. Biglang na-lu-lungkot si Juan nang madalas.
   suddenly:LNK STA-PROG=sad P.SUB J. nang often
   ‘Suddenly, Juan is often sad.’
   (√suddenly>often; ?often>suddenly)

Interestingly, we find that multiple interpretations are more easily available when the final adverb is not attached with nang as is often the case with functional and temporal adverbs. This was seen in (23) above and is due to an attachment ambiguity. However, when two of these adverbs follow the verb the scope is right-to-left as expected. This can be seen in the preferences given the discourse contexts in (46) and (47) (see next page).

Another point for Relativity comes from the fact that two readings of often, which Cinque attributes to base generation in different functional projections, are both present on the right edge of the clause in the reverse order which he posits. Because of the nang marker, lower and higher attachment of adverbs is overtly distinguished on the right periphery. In the higher attachment in (48a) (next page), the adverb takes wide scope over negation while in (48b) (next page) it takes narrow scope.

(46) Na-hu-humaling na.naman yata ‘yun sa iyo,
   STA-PROG-obsess again EPST that.SUB OBL 2SG
   ‘He’s apparently obsessed with you again,
   a. ... tumva-tawag siya lagi ulti.
      (AV)PROG=call 3SG.SUB always again
      he’s again always calling.’
   b. %?... tumva-tawag siya ulti lagi.
      (AV)PROG=call 3SG.SUB again always
      he always calls again.’

(47) Pagka-baba niya...
   CMPLT-put.down 3SG.GEN
   ‘After he hangs up,
   a. %?... tumva-tawag siya lagi ulti.
      (AV)PROG=call 3SG.SUB always again
      he’s again always calling.’
   b. ... tumva-tawag siya ulti lagi.
      (AV)PROG=call 3SG.SUB again always
      he always calls again.’

(48) a. Hindi siya stintingil(.) dalawang beses.
   NEG 3SG.SUB (PV:PRF)charge two:LNK times
   ‘He wasn’t charged twice.’ (twice>NEG)

b. Hindi siya stintingil nang dalawang beses.
   NEG 3SG.SUB (PV:PRF)charge nang two:LNK times
   ‘He wasn’t charged twice.’ (NEG>twice)

Also, if topics are considered separately for the purposes of Relativized Minimality, as Rizzi (2002) and Cinque (2004) claim is necessary, there is no principled explanation for why (repetitive) twice could not raise over negation to TopP as in (49) while being interpreted in its base position beneath negation, contrary to fact.

(49) [ Dalawang beses ]: ay hindi siya stintingil ti,
   two:LNK times TOP NEG 3SG.SUB (PV:PRF)charge (twice>NEG)

Again, this is predicted by the linear order of the adverbial and negation in regard to the verb. Because negation must be composed with the predicate.
before *twice*, the former must take narrow scope (see section 4 for more on topicalization).

Thus, we see that a symmetric approach to adverb scope which requires VP-internal material to be composed with the verb before VP-external material handles all the above facts and may even resolve some of the difficulties noted with interpretive asymmetries in English. If concentric phenomena are mediated through hierarchical relations, scope ambiguity ensues only when attachment is ambiguous, as in the case of two VP-external adverbs flanking the verb.

3.5. Right-to-Left scope as “dual predication”?

Larson (2004) attempts another tack in order to bring concentric scope into line with asymmetric phrase structure. He claims that Andrews’ original observation should not be analyzed as a case of scope but rather an instance of predication as in (50) (Larson’s [11]).

(50)  

a. John’s intentional knockings on the door were two (in number).

b. John’s double-knock on the door was intentional.

Adverbs of this type are not viewed as operators but as predicates within a Davidsonian event semantics. Larson adopts Herburger’s (2000) account of focus to explain the apparent wide scope of sentence final adverbials. The claim rests on adverbs such as *intentionally* and *twice* constituting the nuclear scope of a sentence when appearing in sentence final position as shown in (51) (see next page).

When *twice*, a quantity predicate, appears in the nuclear scope, it is restricted by the material in the restrictive clause thus yielding the apparent wide scope effect. To explain the asymmetric tendency with the sequence *twice* _VERB_ *intentionally* Larson proposes that *intentionally* is ambiguous between a simple event predicate and a scopal operator in preverbal position but that preverbal *twice* can only be a quantifier. Thus, ‘John twice knocked on the door intentionally’ tends to be interpreted as in (52) (next page).

(51)

```
(52)  

2e[knocking(j,d,e) & intentional(e)]
```

Larson’s proposal complicates the analysis of adverbs by treating some of them as ambiguous between two very different items. Furthermore, the ambiguity does not appear to be supported by facts other than the scopal tendencies he seeks to explain. The fact that *intentionally* and *twice* have predicational equivalents (intentional and two times, respectively) cannot be a diagnostic for adverbs which show concentric effects in the postverbal domain since *again, already* and *before* also show these effects (53) but do not possess predicational analogues (*John’s knocking was again / already / before*).

(53)  

a. *Mickey was drunk already again.*

(i.e. It’s the second time he’s been drunk early.)

b. *Mickey was drunk again already.*

(i.e. Having just sobered up only 10 minutes ago.)

In support of preverbal *twice* being quantificational, Larson claims that it is able to take a _when_-clause as a restriction, unlike clause final *twice* which cannot. He demonstrates this with (54) (Larson’s [55]):
(54) 
a. *Twice when she was in Paris Mary visited the Louvre.*
   *Can mean:* ‘On two separate occasions of being in Paris, Mary visited the Louvre during those occasions.’

b. *Mary visited the Louvre twice when she was in Paris.*
   *Must mean:* ‘On one occasion of being in Paris, Mary visited the Louvre twice during that occasion.’

However, he fails to note that the immediate preverbal position of *twice* in the similar context of (55) strongly favors the second reading above. This is unexpected if *twice* were truly quantificational in this position.

(55) *When she was in Paris, Mary twice visited the Louvre.*

Upon further inspection, this data seems to offer additional evidence for the view espoused here. When *twice* is attached postverbally following a *when* clause as in (56) there is a tendency to interpret it parallel to (54a).

(56) *Fido barked when he was hungry twice.*

This is unexpected from Larson’s proposal but is predicted by a theory that allows symmetric adjunction. Because *twice* is composed with the predicate after the *when* clause, it tends towards the wide scope reading, referring to two separate events. We can see that in all the above examples the adverb scope is predictable from its surface position in relation to the predicate and other adjuncts. Thus, it seems Larson’s proposal cannot handle the interpretation of multiple adverbs as well as a symmetric adjunction approach.17

3.6. Epistemic versus deontic readings of modals

Similar to the repetitive / iterative division, Cinque proposes that epistemic and deontic readings of modals are the result of base generation in two different functional projections. He takes the fact that two instances of the same modal can occur simultaneously as evidence for the existence of two separate functional projections. Thus, sentences such as those in (57) could be taken to show that the epistemic phrase is to the left of negation while the deontic (alternatively, “alethic”) is to the right.

(57) 
a. *Dapat hindi sila datap mag-aral.*
   *must NEG 3PL.SUB must AV.INF-study*
   ‘It should be that they do not have to study.’

b. *Maaaring hindi sila maaaring mag-aral.*
   *can:LNK NEG 3PL.SUB can:LNK AV.INF-study*
   ‘It is possible that they are unable to study.’

As Ernst notes, this necessarily treats the formal similarity between epistemic and deontic modals across languages as accidental homophony.18 It appears more felicitous to treat modals as yielding an epistemic reading when taking a higher FEO complement (i.e. Proposition) and a deontic reading when taking a lower FEO complement (i.e. Event). Therefore, when modals are stacked on one side of the predicate, the outer modal may only receive an epistemic reading while the inner modal, a deontic one.

It must also be noted that many deontic / alethic modals in Tagalog (as in many other languages, cf. de Haan 1997) can appear on either side of negation with transparent scope relations, as seen in (58).

(58) 
a. *Puwe de akong hindi ma-tulog.*
   *can 1SG.SUB:LNK NEG STA.INF-sleep*
   ‘I’m able to not sleep.’ (deontic-can>NEG)

b. *Hindi ako puwedeng ma-tulog.*
   *NEG 1SG.SUB can:LNK STA.INF-sleep*
   ‘I’m unable to sleep.’ (NEG>deontic-can)

Thus, a multiple base generation approach must still rely on movement to capture all the facts while a free adjunction approach accounts for the freedom and scope transparency simultaneously.

3.7. Clitic adverbs

Cinque draws a strong connection between affix order and adverb order with the hypothesis that adverbial affixes are the heads of the functional projections containing adverbs of similar semantics as their specifiers. Philippine languages, because of their abundance of clitic adverbs, offer evidence from another domain. In Tagalog, the order of multiple clitics in relation to each other is determined first by prosody; monosyllabic clitics precede disyllabic ones (cf. Schachter and Otanes 1972, Billings 2005).
However, within these phonologically determined domains, there are ordering tendencies that approximate those posited in most general hierarchies. In (59), commas separate items that do not co-occur, the squiggle separates elements that are in free linear variation and the angled bracket separates items that tend (to differing degrees) to enter into a stricter linear relation.

(59)

\[
1\sigma
\]

\[
\text{na, pa} > (\text{na-remainder}) > \text{man} > \text{nga} > \text{din} > \text{lang} > \text{daw} > \text{po} > \text{ba}
\]

\[
\text{already still again even EMPH also only RPRT POL Q}
\]

\[
\text{ASP I ASP II-ITER focus / functional EVID POLITE SPEECH-ACT}
\]

\[
2\sigma
\]

\[
\text{naman} > \text{yata, pala, sana} > \text{kaya}
\]

\[
\text{SWITCH-TOPIC apparently surprisingly OPTATIVE SPEECH-ACT}
\]

\[
\text{SPECULATIVE focus / func. EVID SPEAKER-ORIENTED}
\]

The one exception to the strict syllable-based ordering is the compound clitic \text{nana-remainder} which appears to be ordered according to its first, monosyllabic, element. Within the otherwise regular clitic domains we find some parallels with the ordering principles of the non-clitic domain.

Both Cinque’s hierarchy and Ernst’s theory predict the position of the reported speech marker \text{daw} accurately within the clitic cluster. (60) shows the phrases in the outer periphery of Cinque’s hierarchy (Cinque 1999: 106).

(60) \[
\text{[frankly Mood_{speech act}}
\]

\[
\text{[fortunately Mood_{evaluative}}
\]

\[
\text{[allegedly Mood_{evidential}]}
\]

For Ernst, on the other hand, evidentials are necessarily more internal to Speech Act adverbs since evidentials take Propositions and yield Facts (Propositions with annotated truth values) while Speech Act adverbs such as the question marker \text{ba} take Facts and yield Speech Acts. Thus, if a Speech Act adverb occurred internal to an evidential the evidential could not satisfy its selection requirements (given that FEO type lowering is not generally allowed).

Aspectual adverbs are the most internal within the monosyllabic domain, also in accordance with general predictions. But whereas, Ernst’s theory does not predict a fixed order between iteratives (e.g. \text{again}) and aspectual adverbs (e.g. \text{already, still}), Cinque predicts the opposite order, with the iterative internal to \text{already} and \text{still}; an order which is incorrect for the Tagalog clitic domain.

The two theories appear more or less even in predicting the attested order within single clitic domains. The question now arises as to how these theories can interact with the prosodic component to account for the length-based bifurcation in (59). Within a Cinque-style system, in which adverb order is predetermined by phrase structure, we are confronted with a modular paradox: prosodic conditions must apply before syntactic ordering. Similar difficulties have been noted in the literature under the rubric of the “duplication problem”. For instance, Chomsky and Halle (1968: 368) observe that there are phonological rules, such as Russian obstruent voicing, which apply both within the word and between words as a sandhi phenomenon. It appears misguided to posit the same rule twice in two parts of the phonology. In the same vein, it seems misguided to posit multiple adverbial hierarchies, one in the phrasal domain, one in the disyllabic clitic domain and one in the monosyllabic clitic domain.

On the other hand, this situation is also not unproblematic within the system espoused by Ernst. Although phonological conditions are given a role in adverb ordering it would still be impossible for the FEO calculus to be breached due to overriding prosodic constraints and yet be emergent in cases where prosody was not relevant (i.e., within syllable domains).

This pattern is reminiscent of “The Emergence of the Unmarked” effects in Optimality Theory (Prince and Smolensky 1993). When no higher ranking constraints determine the output, lower ranking constraints emerge to eliminate the more marked candidates. We may consider length-based requirements to dominate the contiguity required by the FEO calculus. This ranking, shown in Table 2 (see next page), yields the correct facts.
Table 2. The FEO calculus as a violable constraint

<table>
<thead>
<tr>
<th>Input:</th>
<th>CLITIC</th>
<th>FEO</th>
<th>CONTIGUITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>umalis - AV.PRF:leave, na - already (ASP), ba - question marker (SPEECH ACT), pala - surprise (SPKR-ORIENTED), sila - they</td>
<td>1σ &gt; 2σ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.  Umalis {na ba pala} sila?</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AV.PRF:leave ASP Q SURF 3PL.SUB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘Did they really leave already?’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.  Umalis {na pala ba} sila?</td>
<td>*!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.  Umalis {ba na pala} sila?</td>
<td>***!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.  Umalis {ba pala na} sila?</td>
<td>*!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This accounts for the basic cases but another problem arises. The first element in the sentence hosting adverbiacl clitics need not be the verb. Adjuncts are found in this position in the adjunct focus construction. If the verb is truly the “center” of the concentric phenomena discussed above, then we would expect that the order in (59) would be reversed when the verb appears to the right of the clitic cluster. However, the order is constant regardless of the position of the verb. Compare (61a) with (61b).

(61)  a. Nag-bitaw na raw ba ang komisyoner kahapon?
     AV.PRF:quit already REPT Q SUB commissioner yesterday
     ‘Did the commissioner reportedly quit yesterday?’

b. Kahapon na raw ba nag-bitaw ang komisyoner?
    Yesterday already REPT Q AV.PRF:quit SUB commissioner
    ‘Was it yesterday that the commissioner reportedly quit?’

The verb appears on the right side of the clitic cluster in the presence of a focused adjunct but the internal order of the clitic cluster remains as if the verb is to its left. While I cannot offer a solution to either of these problems here we may note that linear relations in Tagalog become increasingly fixed as one moves from the domain of full words to that of clitics and finally to that of affixes. This is of course not unique to Tagalog, rather, it is probably a feature of natural language in general. As a result we see less semantically transparent alternations between scope sensitive adverbs in the clitic domains.

Scope transparency does appear to be a tendency in determining the order of adverbiacl clitics but it is far from a rule. (62) and (63) from the

internet show scopally transparent orderings of the clitic adverbs lang ‘only’ and din ‘also’.

(62) Hindi lang sa mga teachers ang problema o sa NEG only OBL PL teachers SUB problem or OBL estudyante, hindi lang din sa sistema.
    student NEG only also OBL system
    ‘The problem isn’t only with the teachers or with the students, its also not only with the system.’ (also>only)

(63)  Ano po ang grina~gawa sa mga taong what POL SUB <PV>PROG~do OBL PL person:LNK nang-a~away sa kasamahan din lang nila sa opisina?
    AV-PROG~fight OBL colleague also only 3PL GEN OBL office
    ‘What is done with the people who fight with their ‘just also’ colleagues in the office?’ (i.e. “with those who are ‘only also’ like them”) (only>also)

Further research may determine whether scopal influence on the order of interchangeable clitics is statistically significant. For now, adverbiacl clitics are seen to pose different, but equally difficult problems for both approaches.

4. The interpretation of peripheral adverbs and oblique phrases

In this section, we look at the interpretation of Tagalog adverbs and oblique (sa) phrases at the left periphery with the goal of adjudicating between the two theories under discussion. As noted earlier, Ernst allows for adjunct movement only as a subset of more general movement operations such as topicalization, focalization and wh-movement. Others, such as Rizzi (2002) allow for advorb movement without apparent featural / discourse motivations.

Taking the sentence in (64) as a base structure we observe the various interpretational possibilities of the oblique phrase sa simbahan in Table 3. When the oblique phrase is construed with the matrix clause it is interpreted as “at the church”, when it is construed with the subordinate clause it is interpreted as “to the church”.

(64) *Inutusan nila akong mag-abuloy ng pera
  order-LV GEN SUB:COMP AV INF donate GEN
  money OBL church

‘They ordered me to donate money to / at the church.’

Table 3. Interpretive possibilities of oblique phrases

<table>
<thead>
<tr>
<th>MATRIX</th>
<th>SUBORD</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Inutusan nila akong [mag-abuloy ng pera] sa simbahan</td>
<td>✓</td>
</tr>
<tr>
<td>ordered 3PL 1SG.COMP to donate GEN money OBL church</td>
<td></td>
</tr>
<tr>
<td>b. Sa simbahan ay inutusan nila akong [mag-abuloy ng pera]</td>
<td>✓</td>
</tr>
<tr>
<td>c. Sa simbahan nila ako inutusang [mag-abuloy ng pera]</td>
<td>✓</td>
</tr>
<tr>
<td>d. Inutusan nila akong [sa simbahan ay mag-abuloy ng pera]</td>
<td>*</td>
</tr>
<tr>
<td>e. Inutusan nila akong [sa simbahan mag-abuloy ng pera]</td>
<td>✓</td>
</tr>
<tr>
<td>f. Inutusan nila ako sa simbahan [mag-abuloy ng pera]</td>
<td>✓</td>
</tr>
<tr>
<td>g. Inutusan nila akong [mag-abuloy sa simbahan ng pera]</td>
<td>*</td>
</tr>
</tbody>
</table>

What the above chart tells us, in derivational terms, is that an oblique phrase may undergo long-distance topic movement (b) and focus movement (c) in addition to short-distance topic movement (d) and focus movement (e). As predicted by basic assumptions about movement, topicalization (d), focalization (e) and scrambling (g) are all forbidden from the matrix clause to the subordinate clause. More generally, long-distance scrambling is impermissible, as shown by (f). The fact that the oblique phrase may receive either interpretation in (a) but only the subordinant interpretation in (g) argues for the possibility of right-adjunction. The two possible attachments of a sentence final oblique are represented by the two right brackets in (a). When attached low, the oblique phrase is construed with the subordinate clause, when attached high it is construed with the matrix clause. If the oblique phrase was actually part of the subordinate clause in (a) then we would expect it to be able to scramble as phrasal scrambling is always permissible within the clause in Tagalog. The fact that (g) cannot have the matrix interpretation shows that this cannot be the case. On the other hand, the order in (a) could also be derived by raising of the entire CP to a matrix internal position above the oblique phrase. If this was the case then we would expect that individual phrases could also raise from the subordinate clause to non-peripheral positions in the matrix clause. But the fact that the oblique in (f) cannot be interpreted with the subordinant clause shows that this cannot be the case either.

The facts of adverb interpretation are similar except for one telling difference. In contrast to oblique phrases, adverbs from a subordinant clause may not undergo long movement of any kind. In other words, adverbs may not be construed with the subordinant clause in any matrix position.25

Table 4. Interpretive possibilities of adverbs

<table>
<thead>
<tr>
<th>MATRIX</th>
<th>SUBORD</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Inutusan nila akong [mag-abuloy ng pera nang madalas]</td>
<td>✓</td>
</tr>
<tr>
<td>ordered 3PL 1SG.COMP to donate GEN money nang frequently</td>
<td></td>
</tr>
<tr>
<td>b. Madalas ay inutusan nila akong [mag-abuloy ng pera]</td>
<td>✓</td>
</tr>
<tr>
<td>c. Madalas nila ako inutusang [mag-abuloy ng pera]</td>
<td>✓</td>
</tr>
<tr>
<td>d. Inutusan nila akong [madalas ay mag-abuloy ng pera]</td>
<td>✓</td>
</tr>
<tr>
<td>e. Inutusan nila akong [madalas mag-abuloy ng pera]</td>
<td>✓</td>
</tr>
<tr>
<td>f. Inutusan nila ako nang madalas na [mag-abuloy ng pera]</td>
<td>✓</td>
</tr>
<tr>
<td>g. Inutusan nila akong [mag-abuloy nang madalas ng pera]</td>
<td>✓</td>
</tr>
</tbody>
</table>

Any syntactic analysis of this contrast should take into account a key pragmatic fact. Topicalized adverbs in Tagalog differ from DP and PP topics in that they generally do not qualify at all as discourse topics (cf. Schachter and Otanes 1972: Chap.7). Thus, sentence (b) in Table 4 cannot be a comment on the topic of things that happen frequently. On the contrary, the adverb in (b) is not even presupposed, a basic requirement for topicality. This suggests that while oblique phrases are felicitously analyzed as having undergone topicalization from a base position, fronted adverbs are better conceived of as adunctions to peripheral positions. Long-distance construals may be ruled out by constraints on parsing such as the Local Attachment Preference (Kimball 1973). Oblique phrases on the other hand may have a legitimate (discourse related) feature to check (see Kaufman to appear for conditions of topics in Tagalog).

This clearly relates to Rizzi’s (2002) Italian facts in (3-5), discussed briefly in section 1.1 and repeated here as (65). Rizzi shows that a manner adverb in the left-periphery of a matrix clause may be construed with a subordinant clause so long as it is a discourse topic or focus. When it is neither, as in (65a), construal with the lower clause is impossible.
(65)  a. *Rapidamente, credo che qualcuno farà sparire i documenti.
    'Quickly, I think that someone will make the documents vanish.'
  b. Rapidamente, credo che nessuno farà sparire i documenti.
    'Quickly, I think that nobody will make the documents vanish.'
  c. RAPIDAMENTE, credo che qualcuno farà sparire i documenti.
    'Quickly, I think that someone will make the documents vanish.'

Similarly, adverbs like improvvisamente ‘suddenly’ may appear in the left periphery without being pragmatically marked as in (66a) but cannot appear unmarked in this position when an intervening adverb is present as in (66b).

(66)  a. Improvvisamente, Gianni ha cambiato opinione.
    ‘Suddenly, Gianni has changed opinion’
  b. *Improvvisamente, Gianni ha spesso cambiato opinione.
    ‘Suddenly, Gianni has often changed opinion.’

Rizzi proposes that Relativized Minimality (RM) be broken into several categories including “Mod(ifier)”. Mod items may not cross other Mod items in the familiar pattern of RM violations when the adverb is a discourse topic, it is necessary to consider topics as separate categories within the system. Crucially, adverbs can no longer be seen as Mod when they are licensed as topics by the discourse. But why should discourse topicality cancel the modificational character of adverbs? Furthermore, as Rizzi notes himself, discourse topics do not show any of the locality effects that are characteristic of the other categories in RM.

The approach taken here handles such facts cleanly. Moved adverbs may take scope in their base position according to the Scope Principle. Because some languages, such as Italian, allow for true adverb topics, movement is countenanced and the adverb may therefore take scope from a lower position. When discourse conditions do not license topicality, as in (65a) and (66), adjunction is the only way in which an adverb may surface in the left periphery. In this case, the adverb must take scope in its surface position. Thus, when a manner adverb is adjoined external to other adverbs or operators that raise the FEO type, it cannot access the Specified Event, which is necessary for manner modification. This explains at once why this type of locality only applies to adverbs which must access Specified Events. Temporal adverbs, for instance, should logically be categorized as

Modifiers in Rizzi’s system, yet they may appear at the periphery regardless of negation and other operators which are closer to the verb. Compare the difference between (67b) (w/out topic intonation) and (68b). Sometimes, for semantic reasons, cannot serve as a discourse topic, yet it appears to cross negation under a movement analysis.

(67)  a. John does nothing at all spontaneously.
  b. *Spontaneously, John does nothing at all.

(68)  a. John does nothing at all sometimes.
  b. Sometimes, John does nothing at all.

If both adverbs are adjoined then we have a unified explanation for why the manner adverb in (67b) is illicit and why sometimes cannot take scope lower than its surface position as shown by (69).

(69)  a. John always makes mistakes sometimes. (ambiguous)
  b. Sometimes, John always makes mistakes. (sometimes>always)

The fact that non-topic manner adverbs may not precede a wh-phrase as in (70b) as opposed to topicalized arguments as in (70c) is taken by Rizzi to indicate the existence of two peripheral positions, one for adverbs and one for DPs.

(70)  a. Rapidamente, hanno fatto i compiti.
    'Quickly, they did the homework.'
  b. ??Rapidamente, che cosa hanno fatto?
    'Quickly, what did they do?'
  c. A Gianni, che cosa gli hanno fatto?
    'To Gianni, what did they do to him?'

This too, may be reanalyzed as a violation of the FEO-calculus. The interrogative operator raises the FEO-type to Speech Act after which it is impossible for a manner adverb to modify a lower FEO type. On the other hand, a true topic like the PP in (70c) has a motivation to move from a lower position. The scope would then be calculated from the position of the trace, thereby satisfying the FEO-calculus.

With the approach outlined here, the difference between Italian and Tagalog may be reduced to a single parameter: the ability of treating ad-
verbs as discourse topics. This is clearly necessary on independent grounds since, unlike Italian, true topicalization of Tagalog adverbs cannot be licensed by discourse, as seen in (71).

(71) A: Paano ko siya puwedeng ma-kita nang madalas? how 1SG.GEN 3SG.SUB can:LNK PV.INF-see nang frequently ‘How can I see her frequently?’

B: #Madalas ay walong naka-ka-kita sa kanya. frequently TOP none:LNK AV–PRG-see OBL 3SG ‘Frequently, nobody sees her.’

Another argument against treating fronted adverbs in Tagalog as movement comes from the scope facts as seen earlier (20)/(49). Left-peripheral adverbs in Tagalog show no signs of reconstruction, contrary to what might be expected under a movement analysis. Furthermore, under a movement analysis there is no principled way to rule out the topicalization of manner and measure adverbs as in (72).

(72) *Malakas, ay nag-salita sila ti loudly TOP AV.PRF-speak 3PL.SUB

An approach utilizing the FEO calculus or some version thereof may take advantage of the fact that these are precisely the categories which require access to an internal semantic layer associated with the VP. It would make sense then that access to this layer is not available above sentential operators which require Events. Since the FEO type of a basic clause must at least be a Proposition, Events are unavailable in the peripheral focus and topic positions. Purely structural explanations must claim the existence of a syntactic distinction between these two classes of adverbs as opposed to all others. A more semantically grounded account can make reference to the lexical semantics of measure and manner modification which involves ‘core’ verbal meaning (Tenny 2000).27

5. Postscript: Malagasy

If concentric layering of adjuncts around the verb is the rule rather than the exception, then the ordering of adverbs in the postverbal domain of languages like Malagasy (Rackowski, 1998) and Seediq (Holmer, 2004) is less surprising than previously considered. Rackowski (1998) gives the order in (73) for Malagasy adverbs. She notes that the order in the preverbal domain is predicted by Cinque’s hierarchy but that this order is seemingly reversed in the postverbal domain.

(73) Na(dia) > Matetika > Tsy > Efa / Mbola > Tsy > VERB > Tsara > ‘Even’ generally NEG already / still NEG well

Tanteraka > Foana > Intsony > Mihitsy > Aza > Ve completely always anymore at.all though SPEECH ACT (Q)

The order of adverb classes is explained naturally by a theory which treats distance from the verb as indicative of scope. Such a theory also correctly predicts that postverbal adverbs in Malagasy may scope over preverbal ones, as shown in (74).

(74) Efa avy mi-sakafo foana Rasoao vao tonga aho. already come AV-eat always Rasoao before arrive 1SG.SUB ‘Rasoao is always already finished eating before I arrive.’

Under an intraposition analysis of (74) where adverbs have syntactically specified base positions, the second adverb foana ‘always’ is never in a position to c-command efa ‘already’. If LF movement is necessary to determine the correct scope then it is unclear how such movement may be constrained to prevent overgeneration of unavailable interpretations. Under a more symmetric analysis, if scope is determined strictly by c-command relations and the subject is in a right branching specifier (as in MacLaughlin 1995, Guilfoyle, Hung and Travis 1992) then foana may be adjoined above efa and below the subject.28

Finally, there is evidence that adverbs within a single class are permutable in Malagasy with corresponding differences in scope (cf. Rackowski 1998: 10). Adverb order should therefore not be taken as a strong argument for intraposition (Pearson 2000, Rackowski and Travis 2000) without evidence that it is possible for a verb-initial language to display the Cinque order of adverbs in the postverbal domain.
6. Conclusion

While templatic analyses have been eschewed with good basis in Phonology (McCarthy and Prince 1995), and Morphology (Rice 2000, Stiebels 2003 inter alia) we find that the template has actually gained ground in syntactic theory under the banner of the “Cartographic Approach” (cf. Cinque (ed.) 2002, Rizzi (ed.) 2002, Belletti (ed.) 2002), with Cinque’s adverbial hierarchy serving as a prime exemplar.

If we take seriously the minimalist call to reduce the grammar to interface conditions on the articulatory component and the interpretive component (Chomsky 1995), then purely phrase structural solutions should also be eschewed when more integrated solutions are available. Ernst’s theory articulates one aspect of the syntax-semantics interface and has been shown here to derive the Tagalog facts well from basic semantic principles. The templatic hierarchy posited by Cinque, on the other hand, makes no reference to semantics at all at the expense of proliferating syntactic categories and functional projections. This is seen to lack in explanatory adequacy in that we have no vista for approaching the obvious question, “Why this order and not another one?”. The implicit claim of the Cartographic Approach, as of any templatic analysis, is that the stipulated order is inherently unpredictable. Armed, however, with a basic theory of event ontology (e.g. Parsons 1990) and scope principles we find that adverb order is highly predictable from the perspective of the interpretive component. Syntax should therefore be no exception to the program of eliminating templates whenever possible.

Notes

* Thanks to John Whitman, John Wolff, Draga Zec and the audience at AFLA XI for helpful comments. Thanks also to Ronie Calugay, Rodney Jubilado, Tina Manueli, Raphael Mercado and especially Thess Savella for their judgments.

1. Cinque allows for unmotivated movement through an extensive array of functional projections and multiple loci for base generation of certain adverbs. Ernst on the other hand introduces stipulatory syntactic features such as [+Right] which is satisfied by linearization to the right of a certain head and PF requirements on “heavy” / “light” items which have no basis in the phonological content of the items themselves.

2. I choose these terms over the more common Tight-fit versus Loose-fit since these terms underemphasize a crucial distinction between the two approaches: the predictions of relative scope between adverbs.

3. This phenomenon cannot be given attention here since verb movement in the languages under discussion here is not “gradated” as in Romance languages, i.e., we do not find overt evidence that the verb is in different positions based on finiteness or other inflectional features.

4. A reviewer points out that there do exist cases such as the German example in (i) where it appears that a verb must be c-commanded by a comparative adjunct (Haider 1997:24, ex.15).

   (i) Der Wert hat sich weit mehr als bloß verdreifacht.

   ‘the value has itself far more than merely tripled’

   V2 is blocked in such sentences. But because of the parochial nature of this restriction with comparatives, it would probably be unfounded to unify an account for this with an account of more general verb-adverb ordering in Romance.

5. Relativized Minimality as envisioned in Rizzi 2002a takes the more specific categories quantification, modification, topic and argument to be relevant in calculating minimality.

6. Of course, these “types” of movements have all been taken to be instantiations of a single rule since the advent of GB. The empirical prediction underlying the rejection of “adverb movement” as an independent phenomenon is that adverbs which are not interpreted in their surface position are displaced because of positional requirements on topicalized, focused or wh-constituents.

7. Schäfer (2002) takes manner readings to be unmarked and clausal readings to be derived through a process of metaphorical extension. I will have nothing further to say about this issue as nothing hinges on it here.

8. The marker introducing adjuncts is written mang; while that introducing arguments is ceng but these are identically pronounced as /na / and nothing differentiates them besides orthography. The connection is further substantiated by many other Philippine languages which introduce manner adverbs and certain other adjectives with the same marker used for internal arguments.

9. Abbreviations used: AV = actor voice, COMP = complementizer, CMPLT = complettive, EMPH = emphatic, EPST = epistemic, GEN = genitive, INF = infinitive, IR = irrealis, LNK = linker, LV = locative voice, NEG = negation, NMLZ = nominalizer, OBL = oblique case, OPT = optative, P = personal/[human], PL = plural, POL = politeness marker, PROG = progressive, PV = patient voice, Q = question marker, RHET = rhetorical question marker, SG = singular, STA = static, SUB = ‘subject’ case, SURP = surprise, TOP = topic marker, TR = transitive. Some irrelevant morphological categories are conflated in the interest of perspicuity.
Second position clitics immediately follow the adverb when it is adjoined directly to the verb as in (11b) but must follow the verb when the complement is clausal as in (13).

The precise nature of this "linked" position (i.e. with the linker nat- ) requires further investigation. I suppose here that it arises from X\textsuperscript{2} adjunction to the verb. (i) (cf. [16b]) suggests that X\textsuperscript{2} linking is symmetric in the verbal domain (as it certainly is for adjectives in the nominal domain).

(i) *Kum\textsuperscript{sing}ANTANG malin\textsuperscript{clear} si Jojo.  
\begin{itemize}
\item AV:PRF\textsuperscript{sing} LNK  
\item P:SUB J
\end{itemize}

"Jojo sang clearly."

There is however a rather strong tendency for linked modifiers of both an adjectival and adverbial nature to precede heads. Due to space limitations, I limit the ensuing discussion to the more common types of adverb attachment and thus must postpone investigation of this type to further work.

2. It should be noted that the edge of event-internal modification appears to be higher than VP, where Ernst claims it is. I will not address this here as it does not affect the more far reaching debate between the two theories.

3. A reviewer mentions the possibility that the adverb in (18b) could also quantify over a contextually restricted domain as in, "Often, when it rains...". But this reading is not inherently present and can only result from scoping over a restricting (when) clause or second operator.

4. This is also reflected in the ungrammaticality of (i) which Wechsler (1989) asserts is the result of the PP being unable to enter the scope of the affixal re-.

(i) *He reclined on the hill
(ii) He reclined the hill.

5. A reviewer points out the possibility of sentences like the German, Kaffee, schnell! 'Coffee, quickly!'. Although such constructions are often orthographically single sentences I feel that they are better treated as two, the second sentence ('Quickly!') instantiating a common ellipsis. This is supported by the presence of an obligatory prosodic break before the adverb.

6. Under certain intonational patterns (36a) is acceptable here. Crucially, this pattern requires a prosodic break between the verb and the manner adverb. I take this to indicate that the verb and manner adverb are no longer co-inhabiting the VP. Either the manner adverb has been right-dislocated or the functional adverb and the verb have been topicalized. In the first case, the manner adverb follows a prosodic break and is deaccented, in the second case it also follows a prosodic break but receives sentential stress.

7. Two more difficulties should be noted for treating concentric scope as a result of semantic partition. First, it cannot at the same time account for the original phenomena which semantic partition was meant to explain, namely, the interpretation of indefinites. If, as Larson claims, because clauses differ from after clauses in that the former is included in the nuclear scope while the latter is part of the restrictive clause, we would expect to find additional evidence in the interpretation of quantifiers and indefinites within these phrases.

Second, Larson's proposal rests on a correspondence between quantificational and information structure such that the nuclear scope is equated with the informational focus. As shown earlier, in regard to adverb scope, intonation cannot subvert constituent structure and the final postverbal adverb does not require focus. More generally, it is difficult to maintain such a tight connection between information structure and quantificational structure. Focus should probably be seen as having certain effects on quantificational structure (e.g. triggering lowering into the nuclear scope) but the nuclear scope cannot be so generally considered as equivalent to the focus of a sentence.

8. More recently, Cinque (2004) addresses the homophony problem by suggesting that certain adverbs are 'underspecified' for certain features (e.g. epistemic / deontic) and can thus be compatible with two different positions. However, the fact that these 'underspecified' adverbs are still base-generated separately begs the question of what precisely their connection is.

9. Thanks to Loren Billings for first pointing this out to me.

10. These results are based both upon speaker judgments and statistical data obtained manually from a comprehensive series of Google searches. Most of (59) is in agreement with Schachter and Otanes (1972) but some is not. They claim, for instance, (p.414), that when daw 'reported speech' and ba 'question marker' co-occur they appear as daw ba and ba daw with equal frequency. The internet data showed however that daw ba occurred 2,144 times as opposed to 855 times for ba daw; a significant difference and one which is expected if the FEO calculus plays a (emergent) role in clitic ordering. Other items in the chart cannot be ordered relative to each other because they only rarely co-occur. Such is the case with yata, pala and kaya.

11. Another alternative is that the syllable based ordering takes place at PF as expected but that syntactic locality constrains prosodic movement. Under this view, violation of the original "prosody-blind" hierarchical ordering at PF could be treated on par with superiority violations. One of the difficulties inherent in such an approach is deciding on what syntactic conditions apply and don't apply at PF. Clearly, the vast majority of syntactic conditions (e.g. HMC, MLC and versions thereof) cannot be respected at this level.

12. It should be noted that the example employed is a control structure which shows certain restructuring effects (Mercado 2002). Non-restructuring contexts may show slightly different behavior in terms of oblique phrase and adverb movement but a full discussion of these differences will have to await further work.

13. The particle ay follows topicalized elements while the complementizer introducing the subordinate clause surfaces as a velar nasal clitic /- / when preceded by a vowel.
24. Alternatively, to get the matrix construal for (a), a Kaynian analysis could generate the oblique phrase in the matrix clause, raise it to a higher position and then move the remnant higher yet. The problem is that the first movement of the oblique phrase to the left periphery would have to be to an otherwise unattested position which is neither Topic nor Focus (since it is neither morphologically nor pragmatically marked). It would then, idiosyncratically, have to trigger obligatory remnant movement, "coincidentally" covering-up the only evidence for the original, aberrant movement. I feel this appears too suspicious to merit serious consideration.

25. It is not entirely clear that the adverbs in (c) and (e) of Table 4 are in the same position as the oblique phrases in (c) and (e) of Table 3. For one, the linker / complementizer may appear after the adverb but not after the oblique phrase. Also, when an oblique is focused an adverb may follow it directly in the peripheral position shown in (c) and (e) and yet be part of the presupposition. If this is simply adjunction to a (non-pragmatically marked) peripheral projection then we may conclude that adjunction to focus positions is forbidden. Either way, the facts are still consistent with the analysis offered here.

26. A reviewer makes the intriguing suggestion that this in turn may reduce to the presence versus absence of a "bridge accent" in the language. German, which is known to possess such an accent, appears to allow long distance movement of manner adverbs as contrastive topics (i).

(i) /Häufig meint der Hans, dass nur die Maria der Bücher liest. /often thinks DET H. COMP only DET M. books reads

'Hans thinks that only Maria reads books frequently.'

27. Ernst actually derives adverbs in topic position through movement in combination with the following Scope Matching Constraint:

Scope Matching Constraint on Adjunct Topicalization (Ernst 2002: 420)
a. The scope of a topicalized adjunct must match that of its base position.
b. Scope matching holds if the lexical material is identical except for "presupposed tense" and the base-position copy of the adjunct.

He opts for this approach over a pure adjunction approach based on three facts (Ernst 2002: 424). First, the ungrammaticality of adverbs intervening between a subject and auxiliary verb, as in (i).

(i) *He icyly had spoken to the lieutenant.

Second, the fact that manner adverbs may putatively appear in topic position while measure adverbs cannot. And finally, the fact that speaker-oriented adverbs do not need to be set off by comma intonation while subject oriented and manner adverbs must be.

These motivations do not appear to me compelling enough to sacrifice a uniform adjunction analysis of adverbial topics along the lines of Shaer (2003) and others. My intuition is that the difference between (i) and (ii) is not strong enough to warrant a drastic amendment to the theory.

(ii) *Icilly, he had spoken to the lieutenant.

Among the languages I am familiar with, manner readings of pragmatically unmarked adverbs in topic position are generally impermissible. Finally, it is very unclear that comma intonation can be taken as a reliable diagnostic for movement as opposed to adjunction. It may be a universal that focus movement and wh-movement, for instance, are never accompanied by comma intonation.

28. Craig Thiersch (p.c.) has suggested to me an alternative bi-clausal analysis for (64) (Thiersch 2005). Preliminary investigation however shows that the verb-like avy is not responsible for the scope facts. Compare always-still in (i) (thanks to Lucien Herimanjaka Rajoarison).

(i) Mhola mi-asa foana i Rasa o na dia afa

still AV.PROG-work always P.SUB R. even already

n-dovy aza ny rehetra.

AV.PRF-go.home though DET all

'Rasa is always still working even when everyone has already gone home.'

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Rackowski, Andrea

Rackowski, Andrea, and Lisa Travis
The Cleft Structure of Malagasy Wh-Questions

Eric Potsdam

This chapter considers the structural analysis of wh-questions in the predicate-initial language Malagasy. In addition to a wh-in-situ strategy, Malagasy allows the wh-phrase to appear at the front of the clause, as in iza no nihomehy? (‘Who laughed?’). I propose that such examples do not involve wh-movement but are pseudoclefts in which the wh-phrase is the predicate and the remaining material is a headless relative clause in subject position. Such examples are thus more literally translated as “The one who laughed is who?” Argumentation in favor of the pseudocleft analysis and against a wh-movement analysis comes from i) predicate properties of the initial wh-phrase, ii) syntactic and semantic parallels with a focus construction that Paul (2001) independently analyzed as a pseudocleft, and iii) the analysis of certain multiple wh-questions from Sabel (2003). The chapter concludes that Malagasy does not have any wh-movement and is a pure wh-in-situ language.

1. Introduction

Malagasy is an Austronesian VOS language spoken on the island of Madagascar. Wh-questions in Malagasy consist of a clause-initial wh-phrase followed by the invariant particle no and then the remainder of the clause:

(1) iza no nihomehy?
who laugh
‘Who laughed?’

This chapter considers two structural analyses of this construction. Under the FRONTING ANALYSIS (Sabel 2002, 2003), such questions have an English-like derivation in which the wh-phrase moves to a clause-initial spec,C: