

Regimes of ordering The core puzzle for this paper involves an asymmetry in argument interpretation in Japanese and Tagalog, considered in light of Kayne’s (1994). Kayne’s (1994) algorithm requires the following derivational steps to derive a head-final, suffixing language (i.e. Japanese).

- (1) [ARG [H [VP ...]]] → ARG H V
 [[VP ...] [ARG [H <[VP ...]>]]] → V ARG H
 [[ARG [VP ...] [<ARG> [H <[VP ...]>]]]] ARG V H

A similar sequence of steps is also required for verb-initial prefixing languages (i.e. Tagalog), shown below.

- (2) [ARG [H [VP ...]]] → ARG H V
 [ARG [<ARG> [H [VP ...]]]] → ARG H V
 [[<ARG> [H [VP ...]]] [ARG [<ARG> [H [VP ...]]]]] H V ARG

An important consequence is that iteration of these sequences will alter the c-command relationships between an ARG and the verbal complex, but should otherwise preserve c-command relationships between ARGs.

On such an approach, when making the simplest assumptions about clause structure, the relative order of arguments in both sorts of language should reflect their relative height. This seems to be correct for Japanese; in (3) we see that binding of a variable in the subject by the object requires the object to precede the subject.

- (3) a. * [Soko_i-no syain-ga] [mittu-izyoo-no kaisya_i-o] tyoosasita
 it-GEN employee-NOM three-or.more-GEN company-ACC investigated
 ‘Their_i employees investigated three or more companies_i.’
 b. [Mittu-izyoo-no kaisya_i-o] [soko_i-no syain-ga] tyoosasita
 three-or.more-GEN company-ACC it-GEN employee-NOM investigated
 ‘Their_i employees investigated three or more companies_i.’ [Takano (2010)]

But this does not seem to be on the right track for Tagalog: regardless of the relative order of arguments, an object(/theme/non-pivot) may not bind a variable in the subject(/agent/pivot).

- (4) a. * N-agma-mahal [ang kanyang_i ama] [ng bawat anak_i]
 AV-ASP-love ANG POSS father CS every child
 ‘Her_i father loves every child_i.’
 b. * N-agma-mahal [ng bawat anak_i] [ang kanyang_i ama]
 AV-ASP-love CS every child ANG POSS father
 ‘Her_i father loves every child_i.’ [Richards (1993)]

Conversely, for the sorts of language under consideration, the position of the verbal complex and elements within it relative to an argument should determine the relative scope of the two — if an argument precedes a scope taking head in the verbal complex, it should outscope that head. This seems to be the case in Tagalog, as shown below: postverbal themes scope below negation, but preverbal themes need not.

- (5) a. Hindi na-kita ni Juan ang maraming batanot
 NEG PV-see CS John ANG many child
 ‘John didn’t see the many children.’ (✓Neg > many, *many > Neg) [Byma 1984]
 b. Maraming usang hindi b-in-aril ng mga hunter
 many deer NEG PV-shoot CS PL hunter
 ‘Many deer were not shot by the hunters.’ (✓many > Neg) [Miller 1988]

This contrasts with themes in Japanese. Preverbal themes — when forced to remain in-situ by *-wa* (Hara 2006, Vermeulen 2009) — consistently scope below negation, not above. However, the linear order of the object and negation suggests — given the LCA — that the object is not in the scope of negation.

- (6) Taroo-ga zen’in-wa sikar-anakat-ta
 T.-NOM all-TOP scold-NEG-PST
 ‘Taro didn’t scold (them) all.’ (?? ∇ > NEG, ✓NEG > ∇)

What we see is that the LCA correctly predicts certain interpretive possibilities for some but not all elements in the clause in both languages. For both languages, the elements that do not comply with the LCA are at the right edge of the clause: the verbal complex in Japanese, and the argument cluster in Tagalog.

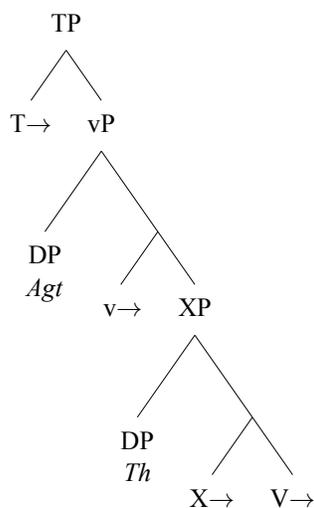
Proposal: The basic proposal is that the LCA is correct, but does not determine the total order of the structure. Requirements like (7) (Richards 2016) may motivate departure from the LCA (to be formalized below).

(7) **Selectional Contiguity:**

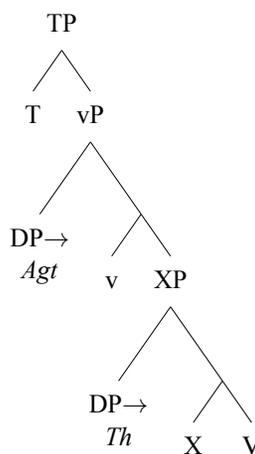
At a specific linearization stage, if X and Y are heads in a selection relationship, $\neg\exists Z$ s.t. $\langle X, Z \rangle, \langle Z, Y \rangle$

(7) poses a challenge both for Japanese and Tagalog, shown in the structures below. For both, the specifiers in the clausal spine pose a problem for (7), preventing — for instance — T from becoming adjacent to v. Placing either of the pair of selecting heads or intervening argument at the right edge of the clause could potentially repair this problem, as represented by the arrows in (8-9) below.

(8) **Japanese: S O V+v+T**



(9) **Tagalog T+v+V {S, O}**



As the formulation of (7) implies, linearization of structure takes place in two stages, following different algorithms, (10), with *core* linearization preceding and feeding linearization of the *periphery*. In the Japanese clausal spine, specifiers, but not heads, are linearized as part of the *core*, satisfying (7). In the Japanese *periphery*, each head is linearized next to that which it selects, following (10b) while satisfying (7). In the Tagalog clausal spine, heads, but not specifiers, are linearized as part of the *core*, also satisfying (7). In the Tagalog *periphery*, specifiers are freely linearized, as they are in no selectional relationship with each other.

(10) a. *Core*: Kayne’s (1994) algorithm, modulated by (7).

b. *Periphery*: $\langle X, Y \rangle$, where $\neg\exists Z : \langle X, Z \rangle$, and Y is unordered w.r.t X.

The linear order of arguments in Japanese thus corresponds with their scope, since their relative scope determines their linear order, in contrast with Tagalog. The linear order of the verbal complex and one of its arguments likewise corresponds with their scope in Tagalog, similarly contrasting with Japanese.

Supporting PF evidence: Nuclear stress assignment is determined by the position in the syntactic tree stressable elements occupy (Bresnan 1971, 1972; Cinque 1993, Kahnemuyipour 2007, a.m.o.). On this analysis, the linear order of arguments in Japanese, but not Tagalog, likewise reflects their position in the structure. Japanese scrambling is known to interact with nuclear stress assignment (Ishihara 2000, Miyagawa 2004, Sato 2009): nuclear stress falls on the object in an SOV clause, but on the subject in an OSV clause. For our proposal, Japanese scrambling alters the c-command relationships between arguments, and — as expected — has a concomitant effect on stress assignment. Tagalog differs: the linear order of agents and themes does not reflect c-command relationships between the two. As shown in Richards (2017), nuclear stress in Tagalog consistently falls on the theme, independent of the relative order of arguments in the clause; we expect this, as Tagalog scrambling results from (10b) underdetermining their relative order, not narrow syntactic movement.