

Locality and anti-locality: the logic of conflicting requirements

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1 Introduction

In many cases in natural language, it seems to be the case that, given the choice of two possible movement operations, the shorter operation is preferred. This principle, *Shortest* [Rizzi (1990); Chomsky (1995); Richards (1997), a.o.], is given in (1).¹

(1) *Shortest*

If a head H attracts an element of category X, move the element of category X which H c-commands and which is not c-commanded or dominated by another element of category X that is also c-commanded by H.

Shortest can explain the difference between (2a-b). (2b) is unacceptable because it violates Shortest: the movement operation in (2a) is shorter than (2b), so movement as in (2b) is blocked.

(2) **Asymmetry in passives results from Shortest**

- a. John was given _____ the book
- b. * The book was given John _____

There are languages that appear to exhibit violations of Shortest. An example of this is given from Luganda (Bantu) in (3). (3) is comparable to (2), but in Luganda, unlike English, the direct object may be promoted to subject position, an apparent violation of Shortest. Luganda-like languages are said to have ‘symmetric’ passives, whereas English-like languages are said to have ‘asymmetric’ passives.

(3) **Some languages seem to violate Shortest**

- a. *akamyu ka-a-lis-ibw-a* _____ *kasooli*
 12.rabbit 12-PST-feed-PASS-FV 1.corn

‘The rabbit was fed corn.’

- b. *kasooli y-a-lis-ibw-a* *akamyu* _____
 1.corn 1-PST-feed-PASS-FV 12.rabbit

‘Corn was fed to the rabbit.’

Pak (2008a), Luganda

We should then wonder what allows some languages to apparently violate Shortest in contrast with others. To solve this puzzle, I propose that Shortest may be violated when the move favored by Shortest would be in some sense ‘too short’ — i.e. when it would violate an *anti-locality requirement* in the sense of Bošković (1997, 2016), Erlewine (2016), and Deal (2019).² Section 2 introduces the formal mechanisms that will allow this to work, using Luganda and another Bantu language, Haya, as case studies. I will furthermore show that this sort of account has an advantage over competing analyses, as it straightforwardly leads us to expect an unusual pattern of ‘non-iterable symmetry’ — where an element may cross no more than one other internal argument when it is promoted to subject in the passive — which both Luganda and Haya display. Section 3 of this paper shows that the sort of effect demonstrated in section 2 is not Bantu-specific, nor is it a feature specifically of passive constructions. I first show that similar patterns of non-iterable symmetry arise in cases of scrambling in Tongan: an internal argument may scramble across no more than one other argument. The account developed in section 2 will be shown to extend more or less straightforwardly to these cases as well. Section 4 shows that Japanese displays patterns of non-iterable symmetry both in the passive as well as in cases of scrambling; I show that the account developed captures these facts, and straightforwardly accounts for the contexts in which crossing A-scrambling chains involving a subject are and are not allowed. Section 5 discusses a number of questions and implications raised by the proposed analysis, and concludes.

2 Case study 1: Luganda & Haya

In this section, I will present some facts from Luganda [Pak (2008a)] and Haya [Duranti and Byarushengo (1977)]—two Bantu languages spoken primarily in Uganda and Tanzania, respectively—involving symmetry and asymmetry in the promotion of internal arguments to subject position in the passive. Languages are said to have symmetric passives when either of two internal arguments may be promoted to subject position, and are said to have asymmetric passives when only the higher of two internal arguments may be promoted to subject position.

For both Luganda and Haya, in cases where there are only two elements that remain inside vP, the language behaves symmetrically—either element may in principle be promoted to subject. In cases where there are three elements inside vP, the language behaves both symmetrically and asymmetrically. The first two elements may undergo promotion to subject position, but the third may not. I will explain why this is a problem for earlier ‘leapfrogging’ accounts of symmetric passives, and show how an account that makes use of anti-locality and the Principle of Conflicting Requirements, leads us to expect the patterns we see in Luganda and Haya.

2.1 Passives in Luganda and Haya

Passives in Luganda appear, on first glance, to be symmetric, as we see in (4). Similar facts hold in Haya, as we see in (5).¹ The verb in Luganda and Haya consistently displays agreement in noun class with the preverbal subject. Tense morphology is generally prefixal; morphology expressing argument structure is generally suffixal. FV stands for ‘final vowel’, the choice of which is condition by a number of factors which I will set aside.

(4) Luganda and Haya have symmetric passives

- a. *abaana ba-a-w-ebw'* _____ *ekitabo*
2.child 2-PST-give-PASS 7.book

‘The children were given the book.’

- b. *ekitabo ky-a-w-ebw'* *abaana* _____
7.book 7-PST-give-PASS 2.child

‘The book was given to the children.’

Luganda, Pak (2008a), ex. 26a-b

- (5) a. *ómawáana a-ha-háá-bwa* _____ *ekitabo*
 1.child 1-PST-give-PASS book

‘The book was given to the child.’ *Haya, Duranti and Byarushengo (1977), ex. 83 [adapted]*

- b. *ekitabo kí-ha-háá-bwa ómawáana* _____
 7.book 7-PST-give-PASS child

‘The book was given to the child.’ *Haya, Duranti and Byarushengo (1977), ex. 90*

This symmetry holds not only of double object construction of inherently ditransitive verbs, but also of derived ditransitives, as in the case of an applicative marked verb, as we see in (6-7) for Luganda and Haya, respectively.

(6) **These passives are generally symmetric**

- a. *omusawo y-a-kwat-ir-w-a* _____ *eddagala*
 1.doctor 1-PST-hold-APPL-PASS-FV 5.medicine

‘The doctor had the medicine held for him.’

- b. *eddagala ly-a-kwat-ir-w-a omusawo* _____
 5.medicine 5-PST-hold-APPL-PASS-FV 1.doctor

‘The medicine was held for the doctor.’ *Luganda, Pak (2008a), ex. 6a-b*

- (7) a. *abáana bá-ka-cumb-il-w’* _____ *ébitook*
 2.child 2-PST-cook-APPL-PASS banana

‘The children were cooked bananas.’

Haya, Duranti and Byarushengo (1977), ex. 67 [adapted]

- b. *ebitook kí-ka-cumb-il-w’ abáana* _____
 8.banana 7-PST-cook-APPL-PASS child

‘Bananas were cooked for the children’

Haya, Duranti and Byarushengo (1977), ex. 103 [adapted]

‘Stacking’ these configurations causes asymmetry to arise, as noted in Pak (2008a). For instance, in Luganda, as we see in (8-9) when an underlying ditransitive is marked with the applicative and is

in the passive, the applicative argument and the indirect object may be promoted to subject position, but the direct object may not.³

(8) Stacking configurations causes asymmetry to arise

- a. *omuggo gw-a-lag-is-ibw-a* _____ *omusomesa abaana*
 3.stick 3-PST-show-APPL-PASS-FV 1.teacher 2.child

“A stick was used to show the children the teacher.”

Luganda, Pak (2008a), ex. 9c

- b. *omusomesa y-a-lag-is-ibw-a* *omuggo* _____ *abaana*
 1.teacher 1-PST-show-APPL-PASS-FV 3.stick 2.child

“The teacher was shown the children using a stick.”

Luganda, Pak (2008a), ex. 9b

- c. * *abaana ba-a-lag-is-ibw-a* *omuggo omusomesa* _____
 2.child 2-PST-show-APPL-PASS-FV 3.stick 1.teacher

“The children were shown to the teacher using a stick.”

Luganda, Pak (2008a), ex. 9d

The presence of a postverbal agent likewise does not appear to block promotion of the direct object—although the agent may not itself undergo promotion to subject position.

(9) Passive subjects may cross a postverbal agent

- a. *ekinnyanja ky-a-fuumb-ib-w-a* *Nakato* _____
 7.fish 7-PST-cook-PST-PASS-FV N.

‘The fish was cooked by Nakato’

Luganda, Pak (2008a), ex. 19

- b. *ebitooke bi-ka-cumb-w’* *ómukâzi* _____
 8.bananas 8-PST-cook-PASS woman

‘The bananas were cooked by the woman.’

Haya, Duranti and Byarushengo (1977), ex. 6

Nor does the presence of a postverbal agent block promotion of an applicative argument—although here again the agent may not undergo promotion to subject position.

(10) **Passive subjects that were underlying applicative arguments may cross a postverbal agent**

- a. ? *omusawo y-a-wandiik-ir-wa Mukasa _____ ebbaluwa*
 1.doctor 1-PST-write-APPL-PASS 1.Mukasa 9.letter

‘The doctor was written a letter by Mukasa’

Luganda, Pak (2007a), ex. 28a

- b. *abáana bá-ka-cumb-il-w’ ómukázy _____ ébitook*
 2.child 2-PST-cook-APPL-PASS woman banana

‘The children were cooked bananas by the woman.’

Haya, Duranti and Byarushengo (1977), ex. 67

In other words, it seems to be the case that, when there are two arguments in the post-verbal field, the second may A-move across the first, regardless of the thematic roles of the two arguments involved. However, asymmetry between internal arguments arises when a postverbal agent appears in the passive of an underlying ditransitive. In such cases, the indirect object may be promoted to subject position, but the direct object may not.

(11) **The stacking effect holds more generally**

- a. *abaana ba-a-w-ebw’ omusajja _____ ekitabo*
 2.child 2-PST-give-PASS 1.man 7.book

‘The children were given the book by the man.’

- b. * *ekitabo ky-a-w-ebw’ omusajja abaana _____*
 7.book 7-PST-give-PASS 1.man 2.child

‘The book was given to the children by the man.’

Luganda, Pak (2008a), ex. 26a-b

- (12) a. *omwáán' a-ka-háá-bw-a kat' _____ ekitabo*
 1.child 1-PST-give-PASS-FV K. book

‘The child was given a book by Kato’

- b. **ekitabo kí-ka-háá-bw-a kat' omwáán' _____*
 7.book 7-PST-give-PASS-FV K. child

‘The book was given to the child by Kato.’

Haya, Duranti and Byarushengo (1977), ex. 83, 86

The pattern in Luganda and Haya seems to be one of *non-iterable symmetry*. In cases where there are two overt arguments originating in the post-verbal domain, the lower argument may always be promoted over the higher argument, regardless of the thematic status of the two arguments in question. However, in cases where there are three arguments in the post-verbal domain, the third may never undergo promotion, even though neither of the two arguments would block promotion of the third in a comparable case involving two post-verbal arguments.

2.2 A problem for leapfrogging

As noted by Pak (2008a), patterns of non-iterable symmetry pose a challenge for theories of symmetry that make use of ‘leapfrogging’ — a term for a particular series of steps that McGinnis (1998) proposes to account for symmetrical passives.⁴ Under this sort of approach, in cases where the direct object promoted to subject position, the direct object first undergoes movement to the outer specifier of the phrase in which the apparently higher argument is externally Merged, in respect of Shortest, as in (13a). This move respects Shortest, since there are no other movable elements that the direct object could be compared with—the Appl head does not c-command any other nominal in (13a-b). The direct object then undergoes further movement to the canonical subject position, and this step of movement also respects Shortest, as in (13b).

- (13) a. $\begin{array}{c} \text{✓ Shortest} \\ \downarrow \\ [_{ApplP} \text{ kasooli } [_{Appl'} \text{ akamyu } [_{Appl'} \text{ APPL } [\dots \text{_____}]]] \end{array}$
- b. $\begin{array}{c} \text{✓ Shortest} \\ \downarrow \\ [_{TP} \text{ kasooli } \dots [_{ApplP} \text{ _____ } [_{Appl'} \text{ akamyu } [_{Appl'} \text{ APPL } \dots]] \end{array}$

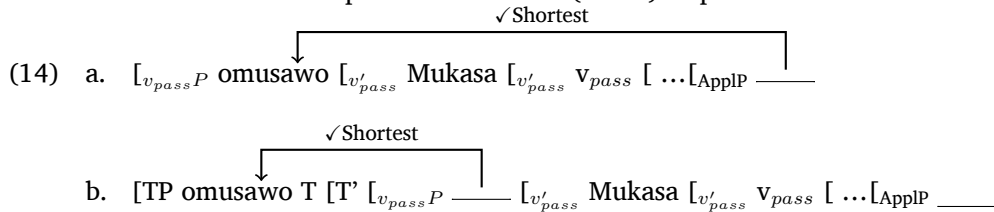
c. *kasooli y-a-lis-ib-w-a akamyu* _____

1.corn 1-PST-feed-ASP-PASS-FV 12.rabbit

‘Corn was fed to the rabbit.’

Pak (2008a)

Similarly, we know that an applicative argument may skip a postverbal agent, as shown below. On a leapfrogging approach, this would involve movement of the applicative through the outer specifier of $v_{pass}P$, followed by movement of the applicative to canonical subject position, as schematized below. Both steps of movement in (14a-b) respect Shortest.



c. *omusawo y-a-wandiik-ir-w-a Mukasa* _____ *ebbaluwa*

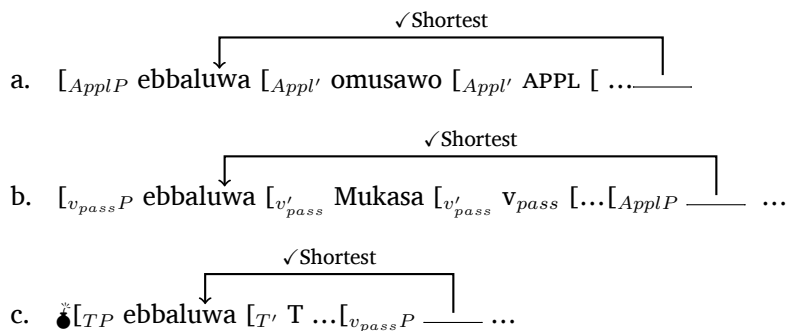
1.doctor 1-PST-write-APPL-PASS-FV 1.Mukasa 9.letter

‘The doctor was written a letter by Mukasa’

Luganda, Pak (2007a), ex. 28a

The problem with proposing such derivations is that they fail to capture the non-iterability of symmetrical promotion. Given the derivational steps in (13-14), there is no way to block (16a-c), leading to sentences like the unacceptable (16d). From (13), we know that an element in the outer specifier of ApplP may move to outer specifier of $v_{pass}P$. Likewise from (14), we see that an internal argument may move from its base position to the outer specifier of ApplP.⁵ There is no way, without additional stipulation, to allow the derivations in (13-14) while ruling out (15).

(15) **Leapfrogging predicts general symmetry in stacking cases**



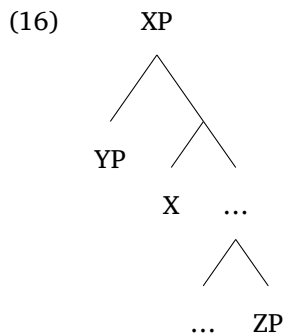
d. * *ebbaluwa y-a-wandiik-ir-w-a Mukasa omusawo* _____

9.letter 9-PST-write-APPL-PASS-FV 1.doctor

Intended: 'The letter was written for the doctor by Mukasa' *Pak (2007a) ex. ex. 28b*

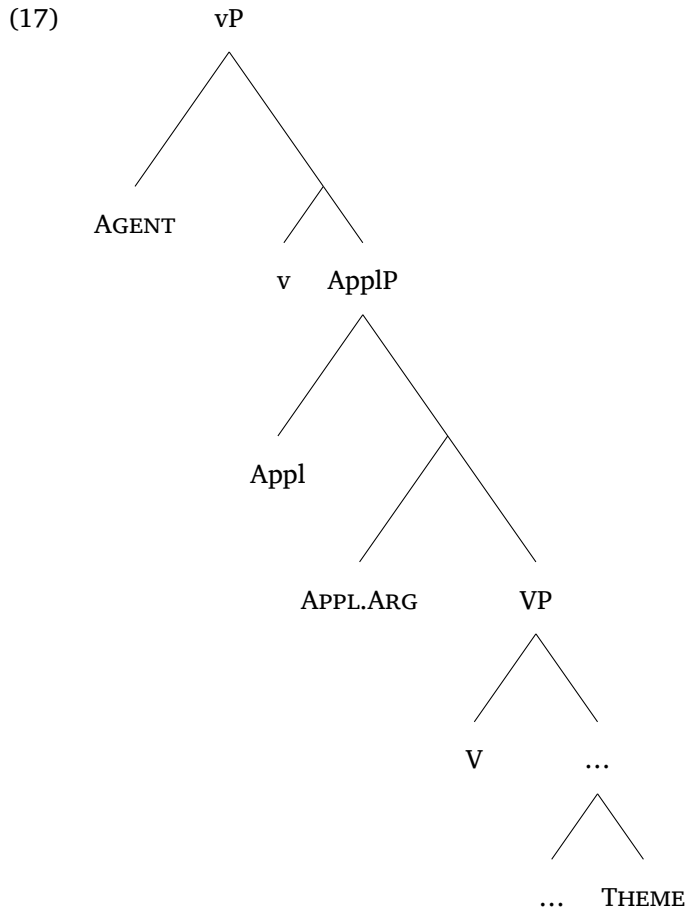
The derivational sequence in (15) should allow the direct object of an underlying ditransitive to be promoted across both the indirect object and external argument, using nothing more than two independently motivatable steps of leapfrogging, those in (15a-b). But we have seen before that this leads to the wrong prediction: the direct object of an underlying ditransitive cannot be promoted across both the indirect object and external argument.

Another more recent approach to symmetric passives is proposed in Holmberg, Sheehan, and van der Wal (to appear). On this view, flexibility in ditransitive passive constructions reflects a case of optionality in the licensing of arguments in ditransitive clauses. For them, in a structure like (16), if X assigns abstract Case, it may assign Case either to YP or ZP, but not both — at least in languages that display symmetric passives. The element which fails to be assigned Case is the one that must move to subject position in order to be licensed, giving rise to a symmetrical passive pattern. When ZP is licensed, the higher of the two elements—here, YP—may undergo movement to the canonical subject position to receive Case. When YP is licensed, the lower of the two elements—here, ZP—may undergo movement to the canonical subject position to receive Case.



It seems that this approach falls prey to the same problem as leapfrogging approaches: on this approach there is nothing in the system which would prevent the relevant licensing options from perniciously iterating.⁶ In other words, for a structure like (17), there is nothing which would prevent *v* from assigning Case to its specifier and Appl from assigning Case to its specifier, allowing the theme to move to the canonical subject position for Case purposes. This would allow the lowest

argument to be passivized across two others in Luganda and Haya, contrary to fact.



One possible move to save this approach would be to appeal to phase theory, particularly since Holmberg, Sheehan, and van der Wal (to appear) make use of such a mechanism to account for the impossibility in a number of languages of *wh*-movement of an applied argument when the theme undergoes passivization, which they term ‘DOMA’ (double object movement asymmetry). The basic idea is that ApplP — at least in languages which display this asymmetry — is a phase. If the theme is to be passivized, it must pass through the outer specifier of ApplP, which will preclude the applied argument itself from undergoing *wh*-movement, given a particular formulation of phase theory. The form of the rescuing move would be to say, for both Luganda and Haya, that in structures like (17), ApplP is a phase, and that ApplP — at least in configurations like (17) — spells-out without the theme escaping it, leaving the theme unlicensed when both Appl and *v* license their specifiers. However, I believe this move would fail on purely theory internal grounds, as Holmberg, Sheehan,

and van der Wal (to appear) explicitly argue that Appl is not a phase head in Luganda, but is in Haya.

2.3 An account using conflicting requirements

In this subsection, I will present an alternative account. This account makes use of a ban on too-close movement, given in (18).

(18) Generalized spec-to-spec anti-locality

- a. Movement of a phrase from spec,XP must cross a maximal projection other than XP.
- b. Movement from position A to position B crosses C iff C dominates A but not B.

I propose furthermore that elements which cannot move to a particular position are irrelevant for the evaluation of Shortest for movement to that position, as in (19).⁷ In the discussion to follow, I will box elements which cannot undergo movement as a result of (18-19).

(19) Principle of Conflicting Requirements

Elements don't count for Shortest if their movement would violate (18)

Anti-locality and the principle in (19), along with certain, independently motivated proposals about the architecture of the clause in Luganda and Haya, will allow us to account for the facts we saw before. I propose that the structure of a passive clause in Haya and Luganda is like that in (20). There is a head which corresponds to the passive morpheme, which I will call v_{pass} . I assume that v_{pass} has an EPP feature, which may be satisfied in one of two ways: by movement of some element into its specifier, or through external merge of an agent.⁸

What this is meant to capture is that the presence of v_{pass} signals two things to the listener: that the subject should not be interpreted as an agent, and that the thematic role of the highest non-subject argument must be higher on some thematic hierarchy than the subject.⁹ In simple cases of passives of transitives, in which the possible thematic roles for arguments are relatively restricted, this will generally result in an obligatorily agentive interpretation for the non-subject argument. In cases involving multiple arguments, this restriction is (somewhat) relaxed: while the highest non-subject argument *might* be an agent, it need not be. The presence of v_{pass} imposes a particular restriction on the clause which is not present in active clauses: not only must spec,vP be filled by some argument, but that argument may not undergo further movement.

(20) $[_{TP} \text{ } [_{v_{pass}P} (\text{EXT.ARG}) v_{pass[_{EPP}]}] \dots [_{ApplP} \text{ APPL.ARG } \dots [_{VP} V \text{ DIR.OBJ } \dots$

A plausible reason for *v* in Luganda and Haya to have this particular property may have to do with particular restrictions on the positioning of focused elements and interrogatives within the clause. Many Bantu languages require focused elements to occupy a particular, non-initial position in the clause such as immediately before or after the verb (IBV/IAV); descriptions of Luganda from Van der Wal and Namyalo (2016) and Haya in Bennett (1977) suggest that these languages require focused elements to occupy an IAV position [see Downing and Hyman (2015) for a recent overview of Bantu information structure]. This, of course poses a challenge when the subject bears focus or is a content question word: some strategy must be used to place the subject immediately after the verb. As noted in Bennett (1977), the preferred strategy for forming such a question in Haya is to passivize the clause, as in (21).

(21) *a-ka-gi-haa-bw* *owa*
 1-past-9.OM-give-PASS who

‘Who was it given by?’

Bennett (1977) ex. 12, pg. 175

The presence of the proposed EPP feature on v_{pass} allows the option of placing a subject in a position where it may be interpreted as focused. The fact that the EPP feature may be satisfied either by internal or external Merge is simply a fact about the EPP feature: so long as an interpretable structure is generated, either ‘sort’ of Merge operation should be able to satisfy the EPP, there should be no preference for one over the other.

Before moving on, I believe it is worth clarifying the claim being made here about the presence of the EPP feature on v_{pass} , and how it relates to the IAV requirement for focus in these languages. The claim here is *not* that v_{pass} requires an element in its specifier to be focused, and thereby satisfy the IAV requirement. Rather, the claim is that v_{pass} allows the IAV requirement to be satisfied by the element in its specifier, *were that element to be focused*.

In (21), note that there is (and for the account proposed, must be) at least one additional functional projection between ApplP and $v_{pass}P$. A plausible candidate for this projection is Asp. Asp in Luganda and Haya is suffixal, whereas tense is prefixal, a fairly common distinction in Bantu languages. However, as we see in (22), the passive morpheme in both languages displays an interesting distribution: it appears to the right of the overt perfective aspectual marker. Under the

assumption that the relative structural height of suffixes is reflected in their linear order, where a suffix is higher in the structure than all suffixes to its left, the facts below suggest that $v_{pass}P$ is higher than Asp. The Luganda case in particular supports this proposal. There we see that the aspectual morpheme is sandwiched between the applicative and passive, which clearly shows that Asp is projected between Appl and v_{pass} .

(22) **Passive is to the right of aspectual marker**

a. *y-a-fuumb-ir-idd-w-a*

1-Past-cook-APPL-ASP-PASS-FV

‘something was cooked for her’

McPherson and Paster (2009) ex. 13, Luganda

b. *be-eg-il-w-e*

2-study-ASP-PASS-FV

‘they were studied’

Dalgish (1977) ex. 11, Haya

Note, crucially for the account at hand, that $v_{pass}P$ is the complement of T. Movement of an element from $[spec, v_{pass}P]$ to $[spec, TP]$ will violate (18). As a result, given (19), any element that occupies $[spec, v_{pass}P]$ will not prevent more distant nominals from moving across it, to the canonical subject position in $[spec, TP]$. This affords us an account of the acceptability of (23-24), where a direct object or applicative undergoes movement to subject position across an overt external argument.

(23) **Conflicting requirements approach predicts symmetry between two highest arguments**

a. ? *omusawo y-a-wandiik-ir-wa* *Mukasa* ____ *ebbaluwa*

1.doctor 1-PST-write-APPL-PASS M. 9.letter

‘The doctor was written a letter by Mukasa’

Luganda, Pak (2007a), ex. 28a

b. *abáana bá-ka-cumb-il-w’* *ómukázy* ____ *ébitook*

2.child 2-PST-cook-APPL-PASS woman banana

‘The children were cooked bananas by the woman.’

Haya, Duranti and Byarushengo (1977), ex. 67

- (24) a. *ekinnyanja ky-a-fuumb-ibwa Nakato* _____
 7.fish 7-PST-cook-PST N.

‘The fish was cooked by Nakato’

Luganda, Pak (2008a), ex. 19

- b. *ebitooke bi-ka-cumb-w’ ómukâzi* _____
 8.bananas 8-PST-cook-PASS woman

‘The bananas were cooked by the woman.’

Haya, Duranti and Byarushengo (1977), ex. 6

The examples in (23-24) will have structures like that in (25). Since the external argument cannot move to the canonical subject position as a result of anti-locality, the next shortest movement is preferred—that of either the applicative, as in (25a) or direct object, as in (25b).

- (25) a. $[_{TP} \text{APPL.ARG } [_{v_{pass}P} \boxed{\text{EXT.ARG}} v_{pass[epp]} [_{AspP} \text{AspP } [_{ApplP} \text{_____} \dots]]]$
 ✓ Shortest
- b. $[_{TP} \text{DIR.OBJ } [_{v_{pass}P} \boxed{\text{EXT.ARG}} v_{pass[epp]} [_{AspP} \text{AspP } [_{VP} V \text{_____} \dots]]]$
 ✓ Shortest

This also gives us a way of understanding how direct objects may bypass the indirect object in sentences like (26a). In this case, as shown in (26b), the indirect object itself moves to satisfy the EPP needs of $v_{pass}P$; as a result it cannot undergo further movement to $[\text{spec}, TP]$, since this would be in violation of anti-locality.

(26) Accounting for symmetry in passives

- a. *ekitabo ky-a-w-ebw’ abaana* _____
 7.book 7-PST-give-PASS 2.child

‘The book was given to the children.’

Luganda, Pak (2008a), ex. 26b

- b. $[_{TP} \text{DIR.OBJ } T [_{v_{pass}P} \boxed{\text{APPL.ARG}} v_{pass[epp]} \dots [_{ApplP} \text{_____} \dots [_{VP} \text{_____} \dots]]]$
 ✓ Shortest

It is now worth digressing to discuss the finer points of this analysis. Recall that both direct and indirect objects may undergo movement to $[\text{spec}, TP]$, as we see once more in (27).

(27) **Symmetry in passives**

- a. *ekitabo ky-a-w-ebw' abaana* _____
 7.book 7-PST-give-PASS 2.child

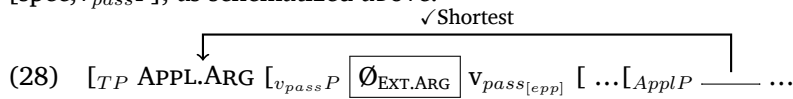
‘The book was given to the children.’

- b. *abaana ba-a-w-ebw' _____ ekitabo*
 2.child 2-PST-give-PASS 7.book

‘The children were given the book.’

Luganda, Pak (2008a), ex. 26a-b

We have already accounted for (27a)—what about (27b)? Presumably in (27b), a phonologically null agent occupies [spec,v_{pass}P], as schematized below, whereas in (27a) the indirect object occupies [spec,v_{pass}P], as schematized above.



If this analysis is on the right track, we make a particular prediction: agent-oriented adverbs should be possible when the higher of two overt postverbal nominals is promoted to subject position—since this movement requires the nominal to skip over a [potentially phonologically null] agent. When the lower of two overt postverbal nominals is promoted to subject position, agent-oriented adverbs should be impossible: in these cases, there must *not* be an agent—overt or null—in the structure. As we see in (29), this prediction is borne out, at least in Luganda.¹⁰

(29) **Theme passives cannot be agentive**

- a. *akamyu ka-a-lis-ibw-a _____ kasooli n'obwegendereza*
 12.rabbit 12-PST-feed-PASS-FV 1.corn with.care

‘The rabbit was fed corn with care.’

- b. * *Kasooli ka-a-lis-ibw-a akamyu _____ n'obwegendereza*
 1.corn 1-PST-feed-PASS-FV 12.rabbit with.care

‘Corn was fed to the rabbits with care.’

Luganda, R. Abudonia (p.c.)

Finally, the account proposed here leads us to expect the pattern of non-iterative symmetry in cases involving three postverbal arguments. Consider the case in (30), where the indirect object

may move across the agent, but the direct object cannot move across both the agent and indirect object.

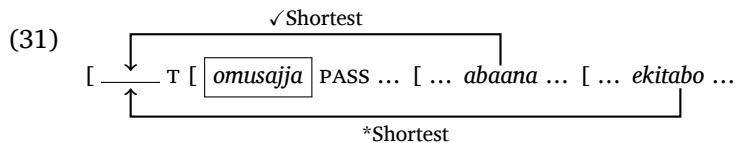
(30) **The problematic pattern of non-iterative symmetry**

**ekitabo ky-a-w-ebw'* *omusajja abaana* ____
 7.book 7-PST-give-PASS 1.man 2.child

‘The book was given to the children by the man.’

Luganda, Pak (2008a) ex. 26b

The sentence in (30b) is simply ruled out as a violation of Shortest. As schematized in (31), there are two elements which may potentially move to [spec,TP]: either the indirect object, or the direct object—the agent here cannot move as a result of anti-locality, and is therefore irrelevant for Shortest. Movement of either the direct object or indirect object in these cases is not constrained by anti-locality, and as a result, both potential movement operations must be considered with respect to Shortest. Shortest, in this case, blocks movement of the direct object, since movement of the indirect object would be shorter, while also respecting anti-locality.



To recap: in this section, we saw that cases of non-iterative symmetrical passives in languages like Luganda and Haya pose a problem for theories of symmetrical movement that make use of leapfrogging derivations. I argued that these patterns motivated a different sort of analysis that makes use of a ban on too-short movement—one in which apparent optionality reflects an underlying difference in the derivation, in which elements that are ignored for movement to the canonical subject position undergo movement to a separate position from which movement from the canonical position would violate anti-locality. I then showed that it leads us to expect there to be languages like Luganda and Haya, given a certain analysis of the clause in these languages, and provided motivation from agent-oriented adverbs for this analysis.

3 Case study 2: Tongan

In this section, we will investigate Tongan, a verb-initial Austronesian language. We will see that patterns of post-verbal scrambling show a remarkable similarity to the patterns of passivization investigated in the section on Luganda and Haya. Here, as was shown there, we will see that scrambling to a particular position in the clause is able to cross no more than one intervening element. This will show us that patterns of non-iterable symmetry can be found in cases of A-movement outside of the passive — something we should expect, given the generality of the proposal developed in section 2.

3.1 Patterns of scrambling in Tongan

In this subsection, we will investigate scrambling in Tongan, as described by Otsuka (2005a). We will see that scrambling in Tongan displays a pattern of iterable symmetry identical to that which we saw in Luganda and Haya—scrambling may not cross two or more elements, even though neither of the elements in isolation normally blocks scrambling. The canonical word order in Tongan is VSO, as shown below.

(32) **Canonically VSO**

Na'e fili [*'e Sione*] [*'a Pila*]

PST choose ERG Sione ABS Pila

'Sione chose Pila.'

Otsuka (2005a) ex. 2a

However, as we see in (33), VOS is also tolerated. Otsuka (2005a) provides a number of arguments which suggest that this word order alternation has A-properties, comparable to scrambling.

(33) **Objects may scramble**

Na'e fili [*'a Pila*] [*'e Sione*] _____

PST choose ABS Pila ERG Sione

'Sione chose Pila.'

Otsuka (2005a) ex. 2b

This reordering is not limited to absolutive objects. As shown in (34-35), an oblique argument may appear to the left of an absolutive subject of different sorts of verb — a verb of directed motion

in (34) and a psych verb, in (35).

(34) Oblique scrambles across absolutive

- a. *Na'e 'alu* [*'a Sione*] [*ki Tonga*]
PST go ABS Sione to Tonga

‘Sione went to Tonga.’

- b. *Na'e 'alu* [*ki Tonga*] [*'a Sione*] ____
PST go to Tonga ABS Sione

‘Sione went to Tonga.’

Otsuka (2005a) ex. 14a-b

- (35) a. *Na'e sio* [*'a Sione*] [*ki he faiako*]
PST see ABS Sione to DEF teacher

‘Sione saw the teacher.’

- b. *Na'e sio* [*ki he faiako'a*] [*'a Sione*] ____
PST see to DEF teacher ABS Sione

‘Sione saw the teacher.’

Otsuka (2005a) ex. 15a-b

As we see in (36), Tongan allows ergative arguments to be expressed as clitic-like element within the verbal cluster, rather than appearing in a properly post-verbal position.

(36) Tongan subject clitics

- Na'a* *ne* *fa'a tofi* [*'a e ma*]
PST 3SG often cut ABS DET bread

‘S/he often cut the bread.’

Ball (2009) ex. 5.3

When the external argument of a ditransitive clause is realized as a clitic, an oblique may freely scramble across an absolutive, as shown in (37).

(37) Oblique scrambles across ABS in absence of ERG in ditransitives

- a. *Na'a* *ne* *tuku* ['*a e tohi*] ['*i he loki.*]
 PST 3.S leave ABS DEF book in DEF room

'He left the book in the room.'

- b. *Na'a* *ne* *tuku* ['*i he loki*] ['*a e tohi.*] ____
 PST 3.S leave in DEF room ABS DEF book

'He left the book in the room.'

Otsuka (2005a) ex. 25a-b

However, when the external argument is expressed as a full post-verbal phase, as in (38), the prepositional phrase may not undergo scrambling.¹¹

(38) Oblique cannot scramble across two arguments

- a. *Na'e* *tuku* ['*e Sione*] ['*a e tohi*] ['*i he loki.*]
 PST leave ERG Sione ABS DEF book in DEF room

'Sione left the book in the room.'

- b. **Na'e* *tuku* ['*i he loki*] ['*e Sione*] ['*a e tohi*] ____
 PST leave in DEF room ERG Sione ABS DEF book

'Sione left the book in the room.'

Otsuka (2005a) ex. 25a-b

The absolutive argument, in contrast, may scramble across a phrasal ergative in ditransitives, demonstrated in (39). This shows us that overt ergatives in ditransitives do not generally block scrambling.

(39) ABS scrambles across overt ERG in ditransitives

- a. *Na'e* *tuku* ['*e Sione*] ['*a e tohi*] ['*i he loki.*]
 PST leave ERG Sione ABS DEF book in DEF room

'Sione left the book in the room.'

- b. *Na'e* *tuku* ['*a e tohi*] ['*e Sione*] ____ ['*i he loki.*]
 PST leave ABS DEF book ERG Sione in DEF room

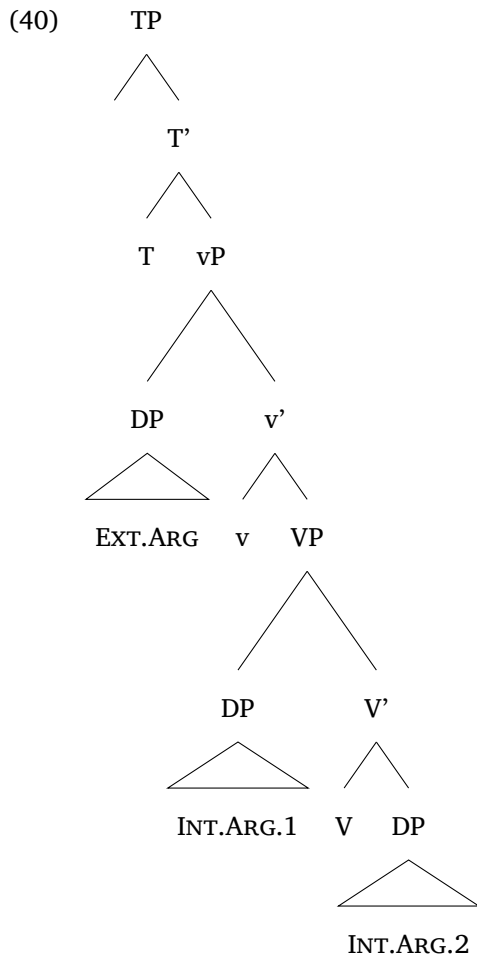
'Sione left the book in the room.'

Otsuka (2005a) ex. 26a, 24a

Scrambling, in Tongan, seems to subject to a restriction identical to promotion to subject in the passives of Luganda and Haya: it may skip one and only one element. The theory developed in §2 leads us to expect this pattern to surface outside of passives: movement of one argument across another requires the higher to be anti-local to the relevant landing site, and, for each position in the clause, there is only one position which is anti-local to it.

3.2 Conflicting requirements deliver the pattern

In this subsection, I will show that the theory of non-iterable symmetry developed in §2 accounts straightforwardly for the patterns of scrambling found in Tongan. I follow Otsuka (2005a) in assuming a clause structure like the following for Tongan.¹²



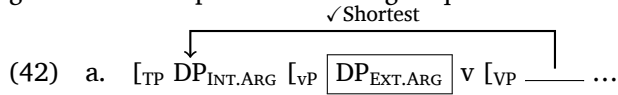
I differ from Otsuka (2005a) in assuming that Tongan scrambling does not necessarily target [spec,TP]. Rather, it may target the specifier of any phrase without an overt specifier.

(41) **Tongan scrambling restriction**

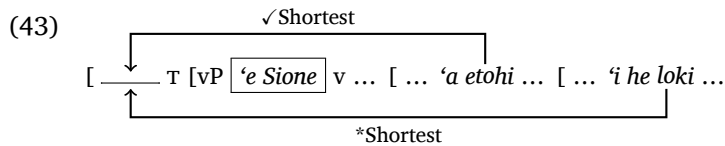
Scrambling in Tongan must target the specifier position of a phrase with no overt specifier.

Recall now our definition of Shortest, which makes reference to an attracting head. Given this definition, this means that Tongan scrambling must be feature-driven. We can understand the restriction in (41) as a result of the feature(s) which drive Tongan scrambling: any head may potentially act as a probe, triggering movement of an argument to its specifier, provided it otherwise lacks a specifier. This is reminiscent of the properties of v_{pass} in Luganda and Haya discussed in the previous section: it was likewise able to attract an internal argument to its specifier, or introduce the agent in its specifier, but not both at the same time.

The proposed clause structure and restriction on scrambling allows us to account for the basic cases of symmetry in transitive clauses. An external argument cannot undergo scrambling to [spec,TP], as this would violate anti-locality. The highest internal argument may skip across it, given the Principle of Conflicting Requirements.



We see here also how an overt external argument allows the first internal argument, but not the second, to scramble across it in ditransitive cases. The first external argument is closer to [spec,TP] than the second; as a result, scrambling of the second across the first internal argument *and* the external argument is blocked.



Given the clause structure assumed here, we make a particular prediction about cases involving two internal arguments and a non-clitic agent. The internal argument should not only be able to undergo scrambling across the agent and higher internal argument, but should furthermore be banned from scrambling to a position between the agent and higher internal argument. Tongan scrambling is restricted to the edge of phrases lacking overt specifiers, and for clauses such as these, the only such phrase is TP. This expectation is borne out, as shown in (44).

- (44) **Na'e tuku* ['e Sione] ['i he loki.] ['a e tohi]
 PST leave ERG Sione in DEF room ABS DEF book

‘Sione left the book in the room.’

Otsuka (2005a) ex. 24b

The restriction in (41) allows us to explain how, in a ditransitive clause with a clitic external argument, the second internal argument may scramble across the first. Presumably, in such cases, the external argument does not occupy [spec,vP]: it either undergoes movement to some higher position, or is linked to a null element in [spec,vP]. The outcome of these will be much the same: given (41), scrambling to the edge of vP will be possible when the external argument is not expressed. As we see in (45), this will allow the second internal argument to pass over the first, given the Principle of Conflicting Requirements.

- (45)

This highlights a particular feature of the theory of locality developed in this paper: whether or not a structurally superior element of the same category as another will prevent that other element from moving depends in part on the landing site of that movement. Under this approach, whether or not an element will block movement of another is determined not just by the properties of the potential blocker, but also by the position of the potential blocker relative to the landing site of movement.

3.2.1 Animacy and Shortest

Certain facts presented in Otsuka (2005a) are not handled straightforwardly by the analysis developed so far. Consider the contrast in (46). (46a) is expected: here we see that a goal cannot be scrambled across both the theme and the agent. However, (46b) is not: here it seems to be the case that a goal may be scrambled across both the theme and agent.

(46) Scrambling across two nominals possible in some cases

- a. **Na'e li* [ki tu'a] ['e Mele] ['a e veve] ____
 PST throw to outside ERG Mele ABS REF rubbish

‘Mele threw the rubbish outside.’

Otsuka (2005b) ex. 17

b. *Na'e 'oange* [*kia* *Sione*] [*'e* *Mele*] [*'a* *e* *ika*] _____
 PST give to.PERS Sione ERG Mele ABS REF fish

‘Mele gave a fish to Sione.’

Otsuka (2005a) ex. 9

I would like to suggest that the relevant difference between (46a-b) has to do with the relative animacy of the scrambled argument. In particular, I propose that probes for scrambling in Tongan favor animate arguments over inanimate arguments. This can be seen as a case of conflict resolution between Shortest and Multitasking, given below.

(47) **Multitasking**

van Urk (2015)

If two operations A and B are possible, and the features checked by A are a superset of those checked by B, the grammar prefers A.

More concretely: Suppose that animacy in Tongan is represented in the featural makeup of nominals, and that human nominals, like (*e'*) *Mele*, bear a feature, [HUM], which non-human nominals, like *tu'a*, lack.¹³ Suppose also that scrambling probes in Tongan probe not only for nominals, but also for [HUM]. In the cases in (47), the ergative agent, which bears [HUM], is ignored by the probe, since movement of the agent would violate anti-locality, as was the case in the other Tongan sentences discussed in this section. In (47a), both the theme and goal lack [HUM]; Shortest demands that the higher of the two undergo movement. In (47b), the theme, *ika*, lacks [HUM], but the goal, *Sione*, bears [HUM]. Here, Multitasking demands that Shortest be ignored, to maximize matching of features between the scrambling probe and scrambled goal.

An interesting consequence of this approach is that we should expect scrambling of the higher of two internal arguments to be impossible when the lower bears [HUM] but the higher does not. In such a case, Multitasking should always force the higher of the two arguments to be skipped by the scrambling probe, as the lower of the two is a better match for that probe. As shown in (48), this is in fact borne out.

(48) **Scrambling of higher internal argument blocked when lower argument is a better match**

*Na'e 'oange ['a e tohi] ['e Sione] _____ [kia Mele]
 PST give.DIR.3 ABS REF book ERG Sione to.PERS Mele

'Sione gave a book to Mele.'

Otsuka (2005b) ex. 15

When both are inanimate, scrambling of the higher is allowed, as shown below in (49). In this case, Multitasking plays no role, since they are equally good matches for the scrambling probe. Shortest will therefore prefer movement of the highest.

(49) **Scrambling of higher argument preferred when both are inanimate**

Na'e li ['a e veve] ['e Mele] _____ [ki tu'a] []
 PST throw ABS REF rubbish ERG Mele to outside

'Mele threw the rubbish outside.'

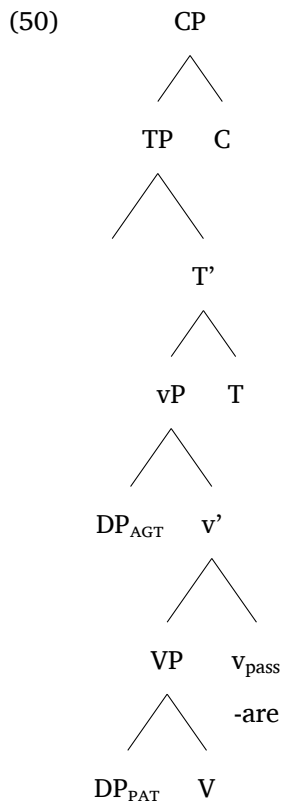
Otsuka (2005b) ex. 16

4 Case study 3: Japanese

So far, we have seen that passives in Luganda and Haya and scrambling in Tongan follow a particular pattern: when there are only two elements which appear in the clause, the lower of the two may undergo A-movement across the higher, independent of thematic role. However, when three elements appear in the clause, the medial element may undergo A-movement across the higher, but the lower element is trapped in-situ, even though it is able to 'skip' both the highest element and the medial element when they appear as a pair. In this subsection, we will first see that the patterns exhibited by Luganda and Haya passives are found in unrelated languages, like Japanese. We will then likewise see that, under certain conditions, scrambling in Japanese can be shown to exhibit restrictions like those in Tongan. In particular, the theory developed here leads us to expect the number of projections between a potential launch and landing site for movement to determine whether or not that movement may actually take place; I show that this expectation is borne out, and correctly predicts the contexts in which crossing A-scrambling chains involving subjects are and are not allowed.

4.1 Japanese passives

I assume a fairly straightforward analysis of Japanese clause structure, given below, following in particular Miyagawa (2001, 2009). In the case of the passive, which we are examining now, an internal argument must move to spec,TP¹⁴, while the agent is licensed in-situ — analogous to the analysis of Luganda and Haya developed in §2.



Evidence that the theme must move to a position above the agent in the passive comes from the inability of the agent to bind a reciprocal theme in the passive, regardless of the relative order of the two, shown in (51).¹⁵ The unacceptability of (51) receives a straightforward explanation if, in the passive, the patient must always move to a position higher than the agent: the reciprocal will move to a position where it c-commands its binder, which is ruled out by standard assumptions about binding. However, if the patient were able to remain in-situ in the passive, the unacceptability of (51) with DAT-NOM word order would be surprising: no binding problem would arise if the patient remains in-situ, where it would be c-commanded by the agent.

- (51) **(otagai-ga Taro-to Naomi-ni (otagai-ga) tatak-are-ta*
 each.other-NOM T.-and N.-DAT each.other-NOM hit-PASS-PST

Intended: ‘Each other were hit by Taro and Naomi.’

M. Y. Erlewine (p.c.)

Having established our assumptions about Japanese clause structure, we will examine passives in more detail in Japanese. (52-53) show that Japanese normally allows both accusative and dative nominals to be promoted to subject in the passive of transitive clauses.

(52) **Both accusatives and datives may become passive subjects**

- a. *Naomi-ga Ken-o tatai-ta.*

Naomi-NOM Ken-ACC hit-PST

‘Naomi hit Ken.’

- b. *Ken-ga Naomi-ni tatak-are-ta.*

Ken-NOM Naomi-DAT hit-PASS-PST

‘Ken was hit by Naomi.’

- (53) a. *John-ga Mary-ni soodansita.*

John-NOM Mary-DAT consult-PST

‘John consulted Mary.’

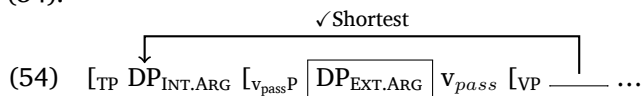
- b. *Mary-ga John-ni soodans-are-ta*

Mary-NOM John-DAT consult-PASS-PST

‘Mary was consulted by John.’

Kuno (1973)

This can be accounted for in much the same way that we accounted for the passive in Luganda and Haya: the external argument here cannot move to the canonical subject position, allowing the lower element to move across it, as a result of the Principle of Conflicting Requirements, schematized in (54).



Passives in Japanese are much like passives in the Bantu languages we investigated in §2. Either an accusative or dative may be promoted to subject position, shown in (55a) and (55b) respectively. The pattern of symmetry can receive an analysis like that which was proposed for Luganda and Haya: when the lower of the two internal arguments is promoted to subject position, this reflects that the higher of the two arguments has undergone movement to a position from which movement to the canonical subject position would violate anti-locality. When the higher of the two arguments is promoted to subject position, it moves directly to this position.

(55) **Symmetric passives without an external agent**

- a. *Naomi-ga* _____ *hanataba-o* *watas-are-ta.*
 Naomi-NOM bouquet-ACC hand-PASS-PST
 ‘Naomi was handed a flower basket’
- b. *Hanataba-ga* *Naomi-ni* _____ *watas-are-ta.*
 bouquet-NOM Naomi-DAT hand-PASS-PST
 ‘The flower bouquet was given to Naomi’

Ishizuka (2012)

The point of interest for the discussion at hand is when an overt agent appears in the passive of a ditransitive clause. Here, as in Luganda and Haya, we see that asymmetry arises: the higher of the two nominals may be promoted to subject position, but the lower may not. The reason for this is presumably the same in all cases. Movement of the lowermost internal argument across the highest internal argument is contingent on a separate step of movement by the higher internal argument to a position from which movement to the canonical subject position would violate anti-locality. The presence of the external argument in (56) precludes this movement taking place—perhaps because the overt agent occupies exactly this position. The highest internal argument is thus the only eligible element for promotion to subject: the agent cannot be promoted as a result of anti-locality, and promoting the lower internal argument across the higher would be in violation of Shortest, as schematized in (56c).

(56) **Asymmetry arises with an external argument**

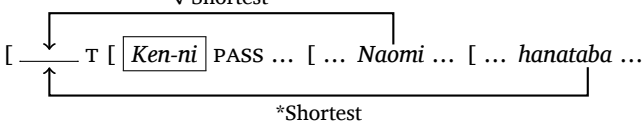
- a. *Naomi-ga Ken-ni _____ hanataba-o watas-are-ta.*
 Naomi-NOM Ken-DAT bouquet-ACC hand-PASS-PST

‘Naomi was handed a flower basket by Ken’

- b. **Hanataba-ga Ken-ni Naomi-ni _____ watas-are-ta.*
 bouquet-NOM Ken-DAT Naomi-DAT hand-PASS-PST

‘The flower bouquet was given to Naomi by Ken’

M. Y. Erlewine (p.c.)

- c. 

It is worth now discussing and dismissing an alternative explanation to (56b). Ishizuka (2012) proposes that (56b) is out for the same reason that (57) is out: two nominals with the same case marker — *-ni* in (56b) and *-o* in (57) — appear in close proximity to each other [see Hiraiwa (2010) for an overview of this effect].

(57) **Double -o ban in Japanese**

- ?? *Ken-ga Naomi-o atama-o tatai-ta.*
 Ken-NOM Naomi-ACC head-ACC hit-PST

‘Ken hit Naomi on the head.’

Hiraiwa (2010) ex. 13b

There is evidence that this analysis is not on the right track. There are a number of ways that the sentence in (57) may be improved—moving one of the two accusative elements away from the other tends to generally improve the sentence. As we see in (58a), clefting one of the two elements in the double -o configuration causes the sentence to become acceptable. However, as we see in (58b), clefting one of the two elements in the putative double -ni configuration does not.

(58) **Difference between double -o and double -ni**

- a. [*Ken-ga Naomi-o _____ tatai-ta no*] -wa *atama datta*
 Ken-NOM Naomi-ACC hit-PST C -TOP head COP

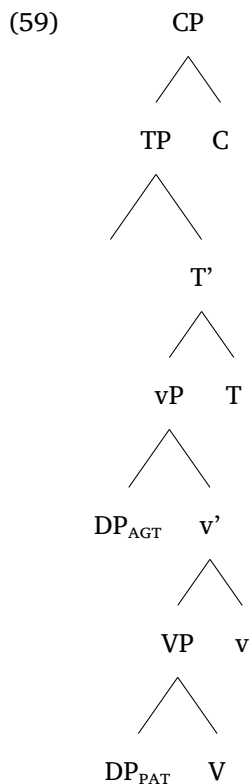
‘It was on the head that Ken hit Naomi’

- b. * [*Hanataba-ga Ken-ni* _____ *watas-are-ta no*] -*wa Naomi datta*
 bouquet-NOM Ken-DAT hand-PASS-PST C -TOP N. COP

‘It was to Naomi that a bouquet was given by Ken’

4.2 Japanese scrambling

In addition to exhibiting non-iterable symmetry in passives like Luganda and Haya, Japanese — at least for some speakers — exhibits non-iterable symmetry in the scrambling of certain arguments, although the pattern is less general than it is in Tongan. Since the analysis here deals with active clauses, we will need to say a bit more about our assumptions about active clause structure. I maintain a fairly standard analysis of Japanese clause structure, following in particular Miyagawa (2001, 2009).¹⁶ I assume that (A-)scrambling in Japanese targets spec,TP. This assumption, in combination with the clause structure below, leads us to expect A-scrambling in Japanese to exhibit the non-iterable symmetry pattern in cases involving two or more internal arguments: anti-locality and the Principle of Conflicting Requirements should allow an internal argument to scramble across the agent, but Shortest will allow only the highest internal argument to scramble to spec,TP. Here we diverge from Miyagawa’s analysis: in simple declarative clauses with SOV word order, the subject does not raise to spec,TP; we will return to the Miyagawa’s arguments for movement of the subject later in this section.



It is well known that Japanese appears to have two ‘types’ of scrambling: one which has A-properties, and another, which has \bar{A} -properties. I assume that \bar{A} -scrambling is ‘selective’, in the sense that it is driven by discourse-related features; Shortest, in cases of \bar{A} -scrambling, will only consider elements which bear the relevant features. Since Japanese is a V-final language, and since there is no morphophonological way of distinguishing A- and \bar{A} - scrambling in Japanese, this means that care must be taken when investigating locality in scrambling: we should expect the pattern we are looking for to arise clearly only in cases where other properties of the structure rule out the possibility of \bar{A} -scrambling.

One place where we can find evidence for this comes from scrambling of idiom chunks. As shown in (60), an indiom chunk in Japanese may potentially undergo scrambling across the agent, but \bar{A} -scrambling of an idiom chunk is not allowed.

(60) **Ā-scrambling breaks the idiom**

- a. *Kosi-o John-ga _____ orosita*
hip-ACC J.-NOM lowered

‘John sat down.’

- b. **Kosi-o Mary-ga [John-ga _____ orosita-to] itta*
hip-ACC M.-NOM J.-NOM lowered said

‘Mary said that John sat down.’

Miyagawa (1994) ex. 20-21

As first observed in Richards (1997), scrambling of the innermost argument of a ditransitive idiom destroys the idiomatic interpretation, shown below.

(61) **Scrambling across two arguments breaks an idiom**

- a. *Taroo-ga hi-ni abura-o sosoida*
T.-NOM fire-DAT oil-ACC poured

‘Taroo made things worse.’

- b. *abura-o Taroo-ga hi-ni _____ sosoida*
oil-ACC T.-NOM fire-DAT poured

#‘Taroo made things worse.’

‘Taroo poured oil on the fire.’

Richards (1997) ex. 34a, c; pg. 78

This is a consequence of the clause structure assumed above, and the analysis of locality in A-movement developed so far. In (61b), the only position to which *abura-o* could (A-)scramble is spec,TP. The agent is ignored for evaluating the Shortest move to this position, as a result of anti-locality. The dative argument, *hi-ni*, however, is closer to spec,TP than *abura-o*; Shortest will demand that *hi-ni* move to spec,TP, blocking movement of *abura-o*. As a result, the only way that the word order in (61c) could be generated is through Ā-scrambling of *abura-o*; we have seen before that Ā-scrambling of an idiom chunk destroys the idiomatic interpretation.

Another place where we can see the pattern we are interested involves the presence or absence of weak crossover effects when an internal object scrambles across a subject. As seen in (62), when the object of a transitive clause scrambles across a subject, no weak crossover effect arises. The

object in (62) is able to undergo A-scrambling, which need not reconstruct.

- (62) [*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) ex. 2b*

In contrast, as we see below, when a quantified lower object of a ditransitive clause scrambles across both an internal argument and subject containing a variable, a bound variable reading is unavailable. On the analysis developed in this section, this is because the word order in (63) is generable only through \bar{A} -scrambling of the subject, which obligatorily reconstructs and therefore cannot generate a bound variable reading.¹⁷

- (63) ??[*Mittu-izyoo-no daigaku_i-o*] [*soko_i-no sotugyoosei-ga*] *Ken-ni*
 Three-or.more-GEN university-ACC it-GEN graduate-NOM Ken-DAT
 _____ *susumeta*
 recommend

‘Their_{*i*} graduates recommended Ken three or more universities_{*i*}.’ *Yoshimoto (2012) ex. 18b, pg. 11*

This contrasts with scrambling of the dative, which feeds binding into the subject, shown below.

- (64) [*Mittu-izyoo-no daigaku_i-ni*] [*soko_i-no sotugyoosei-ga*]_{*j*} _____ [*zibun_j-no*
 three-or.more-GEN university-DAT there-GEN graduate-NOM self-GEN
gakusei-o] *okutta*
 student-ACC sent

‘Their_{*i*} graduates_{*j*} sent their own_{*j*} students to three or more universities_{*i*}.’ *M. Y. Erlewine (p.c.)*

Once more, we see that A-scrambling in Japanese is subject to the same constraint as A-movement in passive constructions and scrambling in Tongan: it may cross no more than one other argument. This falls out naturally as a consequence of the theory of locality developed so far, which will allow no more than one other element to be crossed.

4.3 Anti-locality and the EPP in Japanese

Much work in Japanese, in particular Miyagawa (1997, 2001); Miyagawa et al. (2003); Miyagawa and Tsujioka (2004); Miyagawa (2009), argues that T in Japanese obligatorily bears an [EPP] feature. In transitive clauses, on these analyses, either the agent or theme may move to this position. On the analysis proposed above in this section, only the theme could move to spec,TP: movement of the agent would violate anti-locality, and should be forced to remain in-situ. The analysis developed here falls in line with proposals like those of Kitagawa (1986); Fukui and Speas (1986); Kuroda (1988), which propose that the active Japanese subject remains in vP. In this subsection, I will show that Japanese sentences where agents clearly move to spec,TP from spec,vP consistently involve extra functional material appearing between the two positions, allowing movement of the agent to respect anti-locality.

One argument from Miyagawa that subjects in Japanese may move to T has to do with the relative scope of negation and certain quantificational subjects. With SOV word order, the subject must scope above negation¹⁸, (65a); when the object is scrambled across the subject, ambiguity arises, (65b). Miyagawa (1997, 2001) argues that the difference between the two has to do with the position of the subject: in (65a), the subject must raise to spec,TP to satisfy its EPP feature, placing it out of the scope of negation. For Miyagawa (1997, 2001), the subject and object are equidistant from spec,TP — an assumption not adopted in this paper. As a result of this assumption, (65b) is structurally ambiguous under Miyagawa’s analysis: if the object A-scrambles to spec,TP, as in (65c), satisfying its EPP feature, negation will outscope the subject in spec,vP. If the subject A-moves to spec,TP, and the object \bar{A} -scrambles to spec,CP, as in (65d), then the subject will outscope negation.

(65) a. *Zen’in-ga tesuto-o uke-na-katta.*

all-NOM test-ACC take-NEG-PST

‘All did not take the test.’

$\forall > \text{NEG}$; $*\text{NEG} > \forall$

b. *Tesuto-o zen’in-ga uke-na-katta.*

test-ACC all-NOM take-NEG-PST

‘All did not take the test.’

$\forall > \text{NEG}$; $\text{NEG} > \forall$

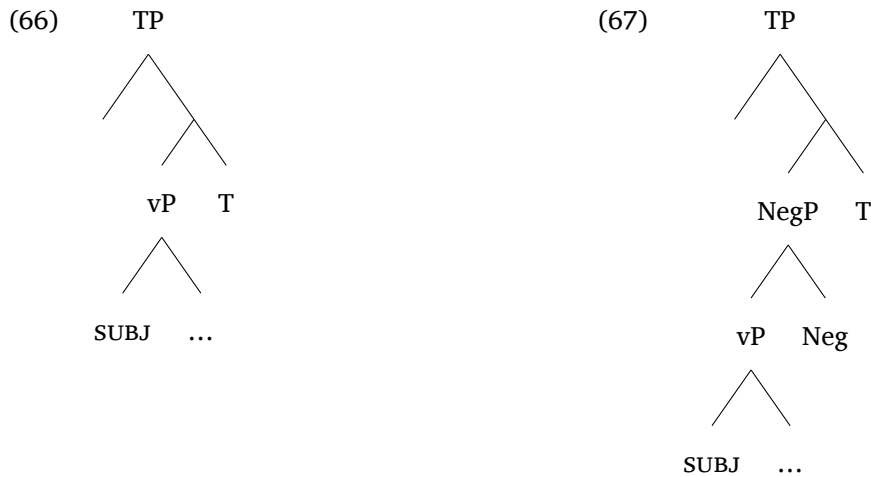
c. [_{CP} [_{TP} Tesuto-o [_{VP} zen’in-ga ...

$\text{NEG} > \forall$

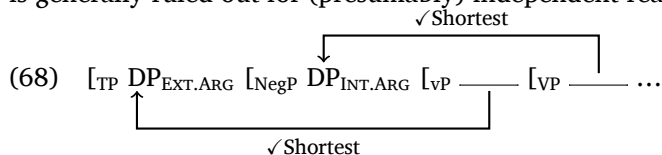
d. [_{CP} Tesuto-o [_{TP} zen’in-ga ...

$\forall > \text{NEG}$

In our prior discussion of Japanese, we have seen that the external argument of active and passive clauses is unable to undergo A-movement to spec,TP, as such movement violates anti-locality, schematized in (66). Given the analysis developed so far, (65) presents a puzzle: how can the subject move to a position from which it outscopes negation? The answer is simple: negation appears between vP and TP, as schematized in (66). Movement of the subject from vP to TP thus respects anti-locality when negation is present.



A consequence of this analysis is that there should be a quite striking difference between negated clauses and affirmative clauses in Japanese: in negated clauses, an object should be able to A-scramble to NegP across the subject, followed by A-scrambling of the subject across the object, as schematized in (68). This sort of ‘nested scrambling’ should be impossible in non-negated clauses: there is no position to which the subject could A-scramble, and \bar{A} -scrambling of nominative subjects is generally ruled out for (presumably) independent reasons (Saito, 1985, a.o.).



One argument for this has to do with the possibility of floating a numeral quantifier from a subject in Japanese in non-negated and negated clauses. As we see below, in (69a), a subject cannot float a numeral quantifier in an affirmative clause. In contrast, as shown in (69b), a subject may float a numeral quantifier in a negated clause. Note in (69b) that the numeral quantifier is affixed by *-sika*, a focus particle which has the distribution of an NPI.

(69) **Quantifier float from agentive subject possible in negated clause**

- a. **Gakusei-ga sake-o san-nin nonda*
 student-NOM sake-ACC three-CL drink

‘Three students drank sake’

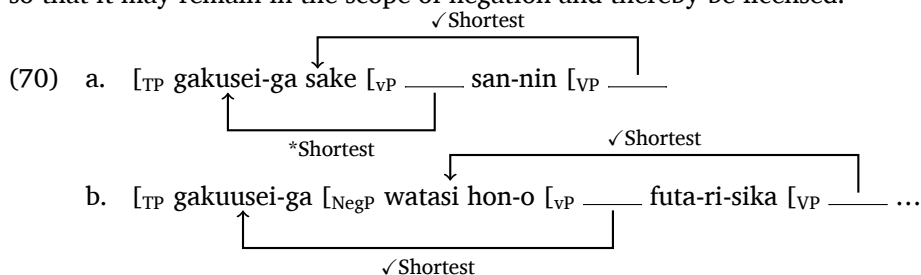
Miyagawa and Arikawa (2007)

- b. *Gakusei-ga watasi-no hon-o futar-ri-sika kaw-ana-katta*
 student-NOM my-GEN book-ACC 2-CL-only buy-NEG-PAST

‘Only two students didn’t buy my book’

Takami (1998)

This is expected under the analysis developed in this section. In (69a), A-scrambling of the subject to spec,TP — necessary for floating of a quantifier (Miyagawa and Arikawa, 2007, a.m.o.) — is ruled out, since it is in violation of anti-locality (scrambling of the object would presumably be tolerated as a result). In (70b), the addition of NegP between TP and vP allows for ‘nested’ scrambling: the object scrambles to NegP, to which the subject is blocked from moving as a result of anti-locality. The subject then may scramble to spec,TP, to which the object is likewise blocked from moving as a result of anti-locality. Stranding of the *sika* marked numeral quantifier here is necessary, presumably so that it may remain in the scope of negation and thereby be licensed.



Further evidence that this is on the right track comes from a particular interaction between nested scrambling constructions and the relative scope of the scrambled arguments with respect to negation in cases where a subject floats a quantifier. As we see in (71a-b), *zen'in* in object position ambiguously scopes above or below negation with SOV word order. This presumably reflects whether or not scrambling of the object to spec,NegP has taken place, with concomitant scrambling of the subject to spec,TP in the case where *zen'in* scopes above negation, schematized in (71b).

(71) **Scopal ambiguity with *zen'in* in object position**

- a. *Taroo-ga zen'in-o sikar-ana-katta*
 T.-NOM all-ACC scold-NEG-PAST

‘Taro didn’t scold all.’

Miyagawa and Arikawa (2007) all > NEG; NEG > all

- b. *all > NEG*:
-

This leads us to a particular expectation: in a sentence where a subject float a quantifier, and the object is *zen'in*, *zen'in* must outscope negation, since quantifier float from a subject requires a derivation like (71b). As shown in (72), this expectation is borne out.

(72) **Subject quantifier float forces *zen'in* object to outscope negation**

Gakusei-ga zen'in-o futa-ri-dake mi-na-katta
 student-NOM all-ACC 2-CL-only see-NEG-PAST

‘Only two students didn’t see all.’ all > NEG; *NEG > all *Miyagawa and Arikawa (2007) ex. 15c*

We can be sure that sentences like (72) involve A-scrambling, since the subject in a configuration like (72) is able to bind into the scrambled object, as shown below.

- (73) [*Sensei-ga*]_S [*zibun-no hono-o*]_O [*futa-ri-dake*]_{FQ} *kaw-anakat-ta*
 teacher-NOM self-GEN book-ACC two-CL-ONLY buy-NEG-PAST

‘Only two professors didn’t buy their (own) books.’

M. Erlewine, p.c.

If this analysis is correct, we should expect the presence of projections between vP and TP other than Neg to allow the nested scrambling pattern which allows a subject to float a quantifier with SOV word order. There is at least some evidence for this, as shown by the contrast in (74). (74a), involving quantifier float from a subject in the simple past tense, is out. (74b), involving quantifier float from a subject in the past progressive, is acceptable. Introducing an additional projection — here, Asp — between TP and vP, allows for the nested scrambling derivation to allow an agentive to float a quantifier with SOV word order.

(74) **Aspectual distinction in quantifier float**

- a. * *Gakusei-ga kyokaso-o yo-nin yon-da*
 students-NOM textbook-ACC 4-CL read-PAST

‘Four students read the textbook.’

- b. *Gakusei-ga kyokaso-o yo-nin yon-dei-ta*
 students-NOM textbook-ACC 4-CL read-ASP-PAST

‘Four students were reading the textbook.’

Tanaka (2008) ex. 16a-b

- c.
-

What we have seen overall, in this section, is that A-movement of different types in Japanese is subject to the same requirement: it may cross no more than one other argument. In other words, it instantiates the pattern that we saw in Luganda and Haya in §2 and the pattern that we saw in Tongan in §3. I showed that the account developed adequately extends to capture these facts, and furthermore makes a set of intricate predictions about the possibility of crossing A-scrambling dependencies involving a subject, which are in fact borne out.

5 Broader implications

In this paper, I have proposed that elements which cannot move as a result of an anti-locality requirement like (75) do not count for the evaluation of locality requirements like Shortest. This principle allows us to account for a variety of instances of apparent violations of Shortest in a number of languages, given certain assumptions about the clause structure. In this section, I will discuss some implications of this theory for analyses of active clauses in the languages discussed in §2-4. I will also expound on the consequences of the theory for our conception of the syntactic architecture.

5.1 Subject position in active clauses

In Luganda, Haya, and Japanese, we have seen some evidence that derived subjects (and, in Japanese, A-scrambled internal arguments) undergo A-movement to a position above the external argument. I suggested that the position in question was uniformly spec,TP. This, of course, raises the question:

what is the position that the agent of an active clause occupies? On common assumptions about clause structure, it cannot be spec,TP: movement of the agent from spec,vP to spec,TP should result in a violation of anti-locality. If we are to maintain these assumptions, there are at least two (not mutually exclusive) possibilities: the subject remains in spec,vP, or the subject moves to spec,CP.

Japanese seems to instantiate the former option: subjects in (non-negated) active clauses remain in spec,vP. This falls in line with earlier analyses of Japanese clause structure like Kitagawa (1986); Fukui and Speas (1986); Kuroda (1988). However, the analysis developed in §4 reconciles these analyses with later analyses (in particular, Miyagawa (1997, 2001)) which argue that subjects in Japanese occupy a derived position — there, in the cases where subjects can clearly be shown to evacuate spec,vP, we saw that additional functional projection were present above vP.

Luganda and Haya, on the other hand, seem to instantiate the latter option: subjects in non-negated active clauses move to spec,CP, rather than spec,TP. This falls in line with a number of proposals suggesting that Bantu subjects need not be located in spec,TP, among them Schneider-Zioga (2007); Pietraszko (2017); Diercks and Green (2018), and for Luganda specifically, Pak (2008b). Evidence for this comes from the distribution of the relative clause complementizer and subject in object relative clauses: the complementizer follows the subject, as shown in (75).

- (75) a. *emikeeka abawala gye ba-a-luka te-gi-gasa*
 4.mat 2.girl 4.REL 2-PST-plait NEG-4-be.of.use

‘The mats the girls plaited are unsuitable.’ *Pak (2007b) ex. 3c, pg. 190; Luganda*

If this analysis of Luganda and Haya is on the right track, we might expect it to be possible — in active clauses — for internal arguments to undergo movement to spec,TP. There is at least some evidence for this from the distribution of left-dislocated objects, which may appear between the subject and the verb, as shown below.

- (76) a. [_{CP} *Abalimi* [_{TP} *walusimbi b-aa-mu-lab-a*
 2.farmers W. 2-PST-1.OM-see-FV

‘As for Walusimbi, the farmers saw him.’ *Hyman and Katamba (2010) ex. 45e, pg. 42; Luganda*

- b. [_{CP} *omwaan'* [_{TP} *embw' a-ka-gi-leeta*
 1.child 9.dog 1-PST-9.OM-bring

‘As for the dog, the child brought it.’ *Duranti and Byarushengo (1977) ex. 16b, pg. 48; Haya*

We have a clear expectation about subject positions in languages that display the sort of interaction between antilocality on the one hand and Shortest on the other: the subject position in active clauses will either be higher or lower than spec,TP. On a particularly strong version of the analysis developed in this paper — one in which symmetry in A-movement always and only reflects the availability of the configuration in §2-4 for movement, and in which clause structure is quite uniform across languages — this would lead us to expect a correlation between the height of the subject the presence or absence of argument-skipping A-movement. Agents in languages like those investigated in §2-4 cannot occupy spec,TP, as a result of anti-locality; the presence of anti-locality effects is what allows A-movement of one argument across another.

Languages like English apparently allow movement of agents from spec,vP to spec,TP — lacking anti-locality effects, at least for A-movement. The lack of anti-locality effects for A-movement seems to correlate with the absence of argument-rearranging A-movement: for instance, English lacks symmetric passives and requires the agent of a passive, when expressed, to be expressed as a prepositional phrase (in contrast, for instance, with Luganda, Haya, and Japanese). I leave an investigation of whether or not the strong analysis, and correlation it predicts, a topic for future work.

5.2 How to think about locality requirements

The core idea presented in this paper is that — at least under certain circumstances — locality requirements like Shortest may be violated to avoid violating some other requirement (in this case, Spec-to-Spec Anti-Locality). There are at least two ways of thinking about these sorts of locality requirements, and how conflicts like those might be resolved, which I will discuss here. In addition I will speculate about how cross-linguistic variation in subject position in active clauses (for instance, English) might be so handled.

One possibility would be to adopt an Optimality Theoretic approach to the syntax. On this approach, we could think of Shortest and anti-locality as violable, ranked constraints. In languages like the ones investigated here, anti-locality would outrank Shortest, allowing for violations of

Shortest just in cases where anti-locality would be violated. We should therefore expect to find languages in which anti-locality is consistently violated so that Shortest may be respected — these would be languages in which Shortest outranks anti-locality. This could give us a handle on the distinction between languages like English (on the one hand), and Luganda, Haya, Tongan, and Japanese on the other. English has a clearly defined subject position — spec,TP — to which movement of an external argument should violate anti-locality, and lacks symmetric A-movement of the sort investigated in this paper. If Shortest outranks anti-locality in English, this is to be expected: movement of the external argument to spec,TP will violate anti-locality, but respect Shortest. Movement of the lower of two internal arguments across the higher will likewise result in a violation of Shortest and thus be ruled out, irrespective of the position of the higher internal argument to the eventual landing site.

Another possibility would be to think of anti-locality as a constraint on the ‘search space’ of a probe, rather than as a constraint on movement operations triggered by probing. Shortest would require a probe to attract the closest element *in the probe’s search space*. Anti-locality requirements would define the shape of the boundaries of the search space of a probe — Spec-to-Spec Anti-Locality, for instance, would consistently exclude the specifier of the sister of a probe from the probe’s search space. The Principle of Conflict Resolution, on this view, would fall out naturally from the definition of Shortest and the definition of anti-locality: Shortest considers movable elements within a particular portion of the structure, and anti-locality excludes certain elements from the considered portion. On this approach, we might account for the difference between English on the one hand (which appears to allow anti-local A-movement in active clauses), and Luganda, Haya, Tongan, and Japanese on the other, as a result of whether or not movement to a particular position — here, the canonical subject position — is triggered by a probe or not. If movement to spec,TP in English is not triggered by a probe¹⁹ (contrasting with the cases of A-movement investigated in this paper), on this view, we should expect movement to spec,TP to be able to violate anti-locality, as anti-locality effects arise specifically from a constraint on probing, rather than movement more generally.

6 Recap and conclusion

In this paper, I argued that elements which were restricted by requirements like (77) are not considered relevant for the evaluation of locality requirements like Shortest, as a result of (78).

(77) Generalized spec-to-spec anti-locality

- a. Movement of a phrase from spec,XP must cross a maximal projection other than XP.
- b. Movement from position A to position B crosses C iff C dominates A but not B.

(78) Principle of Conflicting Requirements

Elements don't count for Shortest if their movement would violate (77).

This afforded us accounts of several cases of apparent Shortest violations. In each case, I argued, the element that was 'skipped' for the evaluation of Shortest was rendered immobile by anti-locality. I contrasted these accounts with accounts utilizing leapfrogging, derivations of the sort proposed by McGinnis (1998) and Doggett (2004), among others. In all the cases examined, the conflicting requirements account proved superior to the leapfrogging account. This might lead us to wonder if instances of leapfrogging exist at all—that is to say, if (77-78) can subsume all cases of potential leapfrogging. Patterns of apparent violations of Shortest that would be suggestive of leapfrogging would be those that involve iterable symmetry: where all arguments that may be fronted across behave symmetrically in pairs, and in concert.

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Notes

¹ There are a plethora of definitions of this sort of constraint which make different fine-grained predictions, and I direct the reader to Fitzpatrick (2002) for discussion and evaluation. For the purposes of this discussion — as far as I can tell — the choice between definitions is not important.

² This is not an exhaustive list of theories of anti-locality. A number of spiritually similar proposals have been made in Murasugi and Saito (1994); Ishii (1997); Bošković (1997); Saito and Murasugi (1999); Abels (2003); Grohmann (2003).

³ Comparable examples in Haya cannot be constructed for independent reasons. Duranti and Byarushengo (1977) demonstrate that Haya does not tolerate sentences when three DPs originate in the post-verbal domain, and none of these DPs are an external argument. An explanation of why this might be the case is outside the scope of this paper, although see Richards (2009, 2010) for some similar facts in Kinande.

⁴ Pak (2008a) does not provide a definitive resolution to this problem.

⁵ An appeal to spec-to-spec anti-locality on its own to block this sort derivation is imaginable: under this approach we might try to rule out movement of the direct object from [spec,ApplP] to [spec,v_{pass}P] on the grounds that this movement operation is in violation of anti-locality. This will prove too restrictive: it would lead us to expect that an applicative argument in a double object construction could not be promoted to subject position, contrary to fact, (i.)

- (i.) *omusomesa y-a-lag-is-ibw-a omuggo _____ abaana*
 1.teacher 1-PST-show-APPL-PASS-FV 3.stick 2.child

“The teacher was shown the children using a stick.”

Pak (2008a), ex. 9b

⁶ The full picture that Holmberg, Sheehan, and van der Wal (to appear) present is one in which leapfrogging derivations like those mentioned beforehand exist alongside the proposed licensing mechanism. I believe however that the theory of flexible licensing they present should on its own allow symmetry in passives without a need for leapfrogging, provided movement is allowed across upwardly licensed specifiers.

⁷ This is consistent with a suggestion made in .

⁸ Since Luganda and Haya are pro-drop languages, the agent may potentially be phonologically null.

⁹ Thematic hierarchies of this sort are commonly assumed as part of more contemporary implementations of Baker’s UTAH. See Baker (1997) for some discussion.

¹⁰ The unacceptability of (79b) is not a result of some general incompatibility between adjuncts and passives which cross a higher argument, a possibility pointed out by a reviewer.

- (i.) *ente z-a-kam-ibw-a Walusimbi _____ kulw’ abalimi*
 10.cow 10-pst-milk-pass-ind 1.W. for 2.farmer

‘The cows were milked for the farmers by Walusimbi.’

Pak (2008a) ex. 30

¹¹ Evidence that the locative in such constructions is an argument as opposed to an adjunct comes from the fact that (pseudo-)incorporation of the locative is possible, as shown in (i.).

- (i.) *Na'e* [*tuku 'ā*] [*'e Sione*] [*'a e ika*]
 PST leave fence ERG Sione ABS DEF fish

'Sione left the fish in the fence.'

Ball (2009) ex. 9.2

¹² This would suggest that the verb in Tongan is higher than T. See Otsuka (2000) for an analysis of Tongan clause structure which makes this explicit.

¹³ See Macdonald (2014) for evidence that the distinction between inanimate, animate non-human, and human is relevant for other grammatical processes in Tongan.

¹⁴ I remain agnostic about exactly what it is which drives this movement. One possibility is that there is a strong connection between spec,TP and nominative Case in Japanese, with movement of the internal argument to this position being driven by a need for licensing [although see Miyagawa, Babyonyshev, et al. (2004); Fitzpatrick (2006) for some arguments that nominative subjects may remain in a VP-internal position in at least some cases.] Another possibility is that movement in these cases is driven by a condition like Alexiadou and Anagnostopoulou (2001), which rules out the presence of more than argument (of a certain type) from remaining in vP.

¹⁵ Note that the unacceptability of (79) is not the result of the reciprocal *otagai* appearing iwth nominative case. As shown below, *otagai* may in principle be nominative.

- (i.) *John-to Mary-ga* [*otagai-ga* *Bill-o seme-ta-to*] *omow-ta*
 J.-and M.-NOM each.other-NOM B.-ACC accused-PST-C think-PST

'John and Mary thought that each other accused Bill.'

Nishigauchi (1992) ex. 11

¹⁶ Given the structure in (79), we should expect — at least in common cases — that it should be impossible for the agent of an active clause to move to spec,TP (contra Miyagawa (2001)), as this would be in violation of anti-locality. Following the discussion of scrambling, I review several arguments for movement of agents in active clauses to spec,TP in Japanese. We will see that the structures used to argue for this sort of movement consistently involve the introduction of additional functional projections between vP and T, allowing movement of the agent to spec,TP while respecting anti-locality.

¹⁷ McGinnis (1999) presents sentences like (i.) as evidence that the lowest internal argument of a ditransitive clause may undergo multiple instances of A-scrambling.

- (i.) *Gakusei-o* [*otagai-no adobaizaa-ga*] [_____ *sensei-ni*] [_____ *syookaisita*]
 student-ACC each.other-GEN advisor-NOM teacher-DAT introduced

'Each other's dvisors introduced the students to the teacher.'

McGinnis (1999) ex. 32b

I believe that (i.) does not actually show what McGinnis claims that it does/ Further work on the interpretation of *otagai* — particularly when it appears as a possessor, as in (i.) — suggests that it is not a reciprocal, and is not governed by binding theory. For instance: as shown in Hoji (2006), a coreferential reading for possessor *otagai* is available even when it is not c-commanded by a coreferential r-expression.

- (ii.) [*otagai-no* *onsi-ga*] [*John-to Mary-o*] *batoo.suru*
 each.other-GEN teacher-NOM J.-and Mary-ACC harshly.criticize

‘Their_{*i*} teachers harshly criticized [John and Mary]_{*i*}’

Hoji (2006) ex. 15b

¹⁸ This judgement is somewhat contested, as Kato (1985); Kawamura (2004); Kataoka (2006); Saito (2009); Shibata (2015) claim that both readings are available, although the $\forall > \text{NEG}$ is preferred. Miyagawa himself seems to have changed his mind in more recent work, presenting examples like (78a) with a “??”, as opposed to a “*”, and noting explicitly that the $\forall > \text{NEG}$ is the preferred reading, but not the only available reading. On the theory developed here, there must be something else which requires One possibility — alluded to earlier in our analysis of the passive — is that a requirement like Alexiadou and Anagnostopoulou (2001) forces movement of at least one argument from vP, provided the movement respects locality conditions. In the SOV cases involving negation here, the most straightforward parse of the sentence which satisfies this requirement is one where the subject has moved out of vP, which will require it to move above negation.

¹⁹ See Richards (2016); McFadden and Sundaresan (2018) for some recent analyses of EPP effects that do not rely on probing.