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RAISING-TO-OBJECT IN AMIS

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PREFACE

The 26th Annual Meeting of the Austronesian Formal Linguistics Association (AFLA 26) was held on May 24-26, 2019 at the University of Western Ontario (Canada). The programme consisted of 24 presentations in addition to four plenary talks by Juliette Blevins, Vera Hohaus, Marian Klamer and Becky Tollan. This volume includes 13 papers from the conference.

As conference organizer, I received generous support from a variety of sources. Financial support came from the Social Sciences and Humanities Research Council of Canada (SSHRC), Research Western, the Joint Fund (Research Western, SOGS, SGPS), the Theoretical and Applied Linguistics Lab, the Canadian Linguistic Association, the Faculty of Arts and Humanities, the Graduate Program in Linguistics and three departments (French Studies, Modern Languages and Literatures, and Anthropology). The conference would not have been possible without the student volunteers (Sonia Masi, William Tran, Caylen Walker and Kang Xu), plus several others who helped out at the registration desk. Finally, I am grateful to the Department of French Studies for administrative support.

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RAISING-TO-OBJECT IN AMIS*

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This paper investigates raising-to-object (RtO) in Amis. I argue that RtO in Amis can be derived by either embedded topicalization or matrix base-generation. Only the former displays reconstruction effects and properties characteristic of topics. The proposal draws on novel data involving idioms, existential wh-indefinites, and topichood diagnostics.

1. Introduction

This paper investigates raising-to-object (RtO) in Amis.¹ Descriptively, RtO refers to a construction in which a DP (*raised DP* hereafter) that is thematically linked to the embedded predicate nevertheless exhibits behavior typical of matrix objects. For example, the raised DP, *toya tamdaw* ‘that person’ in (1a)², precedes the embedded predicate and appears with accusative case, as opposed to nominative case on the embedded subject in (1b).

(1) a. Ma-fana’ kako *to-ya* *tamdaw* mi-liyas-to inacila.
AV-know NOM.1SG ACC-that person AV-leave-ASP yesterday
‘I know that that person left yesterday.’

b. Ma-fana’ kako mi-liyas-to *ko-ya* *tamdaw* inacila.
AV-know NOM.1SG AV-leave-ASP NOM-that person yesterday

RtO is the topic in numerous previous studies (Chomsky 1973; Postal 1974, a.o.). One recurring question concerns whether the construction is derived by movement or base-generation. Specifically, does the raised DP originate inside the embedded clause and move to its surface position? Or does it start out in the matrix clause

*I would like to thank my consultants, Nawmi Yoki, Miko Ito Talalokan, and Masako Lin for their patience and knowledge. I also thank participants at AFLA26, TEAL12, and GLOW in Asia 7 for helpful comments on this work. All errors are my own.

¹Amis is a Formosan language spoken mainly in eastern Taiwan. The basic word order is VSO. The dialect reported in this paper is the Siwkolang/Central dialect. All native speaker consultants for this project are from Fuli, Hualien or Yuli, Hualien. The data were elicited through one-on-one elicitations and online correspondences.

²Abbreviations not included in the Leipzig Glossing Rules: ASP=aspectual marker, AV=actor voice, LNK=linker, P=preposition, PV=patient voice, RED=reduplicant, SREL=subj. relativiser, TOP=topic marker.

and is associated with the embedded clause through some other means?

This paper argues that both strategies are available in Amis. Thus, examples such as (1a) are in fact structurally ambiguous. In one structure, as shown schematically in (2a), the raised DP is merged in the embedded clause and moves to the left edge of the embedded clause. I will show that this movement is topicalization. In another structure, as in (2b), the raised DP is base-generated in the matrix clause and is co-indexed with a *pro* in the embedded clause. Given that Amis is a *pro*-drop language, (2b) with a silent *pro* is in principle one way to derive (1a).

(2) a. *Topicalization to edge of embedded clause*

[_{CP} ... [_{CP} Raised DP [_{C'} ... <Raised DP> ...]]]

b. *Base-generation of DP in matrix clause, coindexed with embedded pro*

[_{CP} ... Raised DP₇ ... [_{CP} ... *pro*₇ ...]]

The rest of the paper is organized as follows. In §2, I start with how we can tease apart the two structures posited in (2). In particular, I will show that these two structures behave differently with respect to reconstruction. In §3, I show that the derivation underlying (2a) is topicalization. I lay out the proposal in §4 before I discuss its implications in §5.

2. Distinguishing movement and base-generation

In this section, I will first show that when the raised DP is unambiguously outside the embedded clause, it cannot reconstruct back into the embedded clause.³ This will be based on idioms and existential *wh*-indefinites. However, we will also see that, even when the raised DP cannot reconstruct, it can still bind an embedded reflexive. This provides evidence for the embedded *pro* posited in (2b).

One difference between the two structures posited in (2) is whether or not the raised DP is part of the embedded clause. In (2a), the raised DP has moved to the left edge of the embedded clause, but it is still inside the embedded clause. In (2b), the

³ I will focus on examples with an embedded AV clause. Speakers' judgment on embedded PV clauses split. For some, only the highest DP can raise (AV NOM and PV GEN, e.g. (ib)). For the others, only NOM DP can raise (AV NOM and PV NOM). To my knowledge, the second type of judgment is the only possibility reported in previous works on Amis RTO (Y. Chen 2008; Liu 2011; V. Chen and Fukuda 2016). In addition, this paper's discussion by and large also applies to Rto with an embedded gerund. See Chen 2018 for relevant data.

(i)a. Ma-fana' kako asip-en ni Panay ko codad inacila.

AV-know NOM.1SG read-PV GEN PN NOM book yesterday

'I know that Panay read the books yesterday.'

b. Ma-fana' kako ci Panay-an asip-en ko codad inacila.

AV-know NOM.1SG ACC PN-ACC read-PV NOM book yesterday

raised DP is base-generated in the matrix clause. (1a) above is compatible with either structure. Below I illustrate two ways that can help disambiguate the two structures.

First, we can place the raised DP either after or before a matrix adjunct, as in (3a) and (3b), respectively. In (3a), the raised DP *toya tamdaw* follows the matrix adjunct *anini* ‘today.’⁴ In (3b), the order is reversed. For ease of reference, when a raised DP follows a matrix adjunct, as in (3a), I will call it a *low raised DP* and the associated construction *low raising*. When a raised DP precedes a matrix adjunct, as in (3b), I will call it a *high raised DP* and the construction *high raising*.

(3) *Position of matrix adjunct*

a. *Low raised DP*

Ma-fana’ kako anini *to-ya* *tamdaw* mi-liyas-to inacila.
 AV-know NOM.1SG today ACC-that person AV-leave-ASP yesterday
 ‘I know today that that person left yesterday.’

b. *High raised DP*

Ma-fana’ kako *to-ya* *tamdaw* anini mi-liyas-to inacila.
 AV-know NOM.1SG ACC-that person today AV-leave-ASP yesterday

Another way to distinguish the two positions is by scrambling the raised DP across the matrix subject, as in (4b). In (4b), the raised DP *toya tamdaw* precedes the matrix subject *kako* ‘I.’ This is another example of what I will refer to as a *high raised DP*. Note that (4a) is the same ambiguous example we saw at the beginning and will not be informative for our purpose. I will include it in the following examples for the sake of completeness.

(4) *Scrambling across matrix subject*

a. *High or low raised DP*

Ma-fana’ kako *to-ya* *tamdaw* mi-liyas-to inacila.
 AV-know NOM.1SG ACC-that person AV-leave-ASP yesterday
 ‘I know that that person left yesterday.’

b. *High raised DP*

Ma-fana’ *to-ya* *tamdaw* kako mi-liyas-to inacila.
 AV-know ACC-that person NOM.1SG AV-leave-ASP yesterday

The discussion in the rest of §2 will center around these two configurations, varying either the position of a matrix adjunct or the position of the matrix subject.

⁴Word order of adjuncts is relatively unrestricted in Amis. In (3) and the following examples, in addition to the first adjunct *anini*, I include another adjunct at the end of the entire sentence to make sure that *anini* is interpreted as a matrix adjunct. Note that in principle, given the word order possibilities in Amis, *anini* should be able to be associated with the embedded clause and the second adjunct with the matrix clause. However, if this is possible, it is very marked interpretation and did not interfere with the diagnostics as intended.

Based on the data to be illustrated, I will propose that the low raised DP is derived by embedded movement and the high raised DP is base-generated in the matrix clause.

2.1. Reconstruction: idioms

We first look at idioms. (5) is the idiom that we will be using for this demonstration.

- (5) O fali ko sowal no-ra tamdaw.
 PRED wind NOM word GEN-that person
 ‘That person’s words are meaningless/bluffing (lit. are wind).’

As (6a) shows, when the raised DP, *to sowal nora tamdaw* ‘that person’s words,’ follows the matrix adjunct *anini*, the idiomatic reading is still available, even though the raised DP precedes the rest of the idiom (the embedded clause). On the other hand, as (6b) shows, when the raised DP precedes the matrix adjunct, the idiomatic reading is lost.

- (6) *Position of matrix adjunct*
a. *Low raised DP can reconstruct*
 Ma-fana’ kako anini to sowal no-ra tamdaw o fali
 AV-know NOM.1SG today ACC word GEN-that person PRED wind
 inacila.
 yesterday
 ‘I know today that that person’s words yesterday were meaningless/bluffing.’
b. *High raised DP cannot reconstruct*
 #Ma-fana’ kako to sowal no-ra tamdaw anini o fali
 AV-know NOM.1SG ACC word GEN-that person today PRED wind
 inacila.
 yesterday

Similarly, when the raised DP is scrambled across the matrix subject *kako*, as in (7b), the idiomatic reading is also not available.

- (7) *Scrambling across matrix subject*
a. *Low raised DP can reconstruct*
 Ma-fana’ kako to sowal no-ra tamdaw o fali.
 AV-know NOM.1SG ACC word GEN-that person PRED wind
 ‘I know that that person’s words were meaningless/bluffing.’
b. *High raised DP cannot reconstruct*
 #Ma-fana’ to sowal no-ra tamdaw kako o fali.
 AV-know ACC word GEN-that person NOM.1SG PRED wind

2.2. Reconstruction: existential wh-indefinites

The same contrast can be illustrated with existential wh-indefinites. Existential wh-indefinites are licensed in a variety of environments in Amis, including negation.⁵ (8a)-(8b) together show that the wh-word *cimá* ‘who’ can be interpreted as an existential when it takes scope under negation.

- (8) *Existential wh-indefinites are licensed under negation*
- a. **Mi-asip ko cimá⁷ to codad ni Panay i matini.*
 AV-read NOM who ACC book GEN PN P now
 Intended: ‘Someone is reading Panay’s books now.’ (* for the existential reading only)
- b. *Caay pi-asip ko cimá to codad ni Panay i matini.*
 NEG AV-read NOM who ACC book GEN PN P now
 ‘No one ($\neg \rightarrow \exists$) is reading Panay’s books now.’

The raised DP in (9) is a wh-word, *to cimaan* ‘who.ACC.’ (9a) shows that when the raised DP follows the matrix adjunct *anini*, it can still be interpreted as an existential, even though it linearly precedes the embedded negation. However, when the raised DP precedes the same matrix adjunct, as in (9b), or when it is scrambled across the matrix subject, as in (10b), the existential reading is not available.

- (9) *Position of matrix adjunct*
- a. *Low raised DP can reconstruct*
Ma-fana’ kako anini to cima-án caay pi-liyas inacila.
 AV-know NOM.1SG today ACC who-ACC NEG AV-leave yesterday
 ‘I know today that no one left yesterday.’
- b. *High raised DP cannot reconstruct*
 **Ma-fana’ kako to cima-án anini caay pi-liyas inacila.*
 AV-know NOM.1SG ACC who-ACC today NEG AV-leave yesterday
 (* for the existential reading only)
- (10) *Scrambling across matrix subject*
- a. *Low raised DP can reconstruct*
Ma-fana’ kako to cima-án caay pi-liyas-to inacila.
 AV-know NOM.1SG ACC who-ACC NEG AV-leave-ASP yesterday
 ‘I know that no one left yesterday.’

⁵See Chen 2018 for more licensing environments of existential wh-indefinites in Amis.

⁷I indicate stress on wh-words because their interpretation can vary with stress. Wh-words with penultimate stress are unambiguously interrogative, whereas wh-words with final stress are ambiguous between the existential reading and the interrogative reading.

b. *High raised DP cannot reconstruct*

??Ma-fana' to cima-án kako caay pi-liyas-to inacila.
 AV-know ACC who-ACC NOM.1SG NEG AV-leave-ASP yesterday
 (?? for the existential reading only)⁸

The data above suggest that the low raised DP, but not the high raised DP, can be interpreted as part of the embedded clause.

2.3. Coreferential pronouns in embedded clause

The third difference between low raising and high raising concerns whether or not is possible to have an overt pronoun in the embedded clause that co-refers with the raised DP. This is only possible with low raising.

First, as (11a) shows, when the raised DP *toya tamdaw* follows the matrix adjunct *anini*, we can optionally have a pronoun in the embedded clause that refers back to the raised DP. Later in §3, the data will suggest that the low raised DP is a left-dislocated topic. Since topicalization in Amis freely allows optional resumption, (11a) is expected.

(11) *Position of matrix adjunct*

a. *Low raised DP: optional coreferential pronoun in embedded clause*

Ma-fana' kako anini [to-ya tamdaw]₇ mi-liyas-to (cingra₇)
 AV-know NOM.1SG today ACC-that person AV-leave-ASP (NOM.3SG)
 inacila.
 yesterday
 'I know today that [that person]₇, (s/he₇) left yesterday.'

b. *High raised DP: no overt coreferential pronoun in embedded clause*

Ma-fana' kako [to-ya tamdaw]₇ anini mi-liyas-to (*cingra₇)
 AV-know NOM.1SG ACC-that person today AV-leave-ASP (*NOM.3SG)
 inacila.
 yesterday

However, as (11b) and (12b) show, when the raised DP precedes the matrix adjunct or when it is scrambled across the matrix subject, having a coreferential pronoun in the embedded clause is not acceptable. This may be surprising, given that the structure I posited for base-generation in (2b) contains a *pro* in the embedded clause. I do not have an explanation for this at the moment, but this is a consistent contrast between the two structures in (2). I tentatively attribute this to restrictions on when a *pro* can be pronounced in Amis, but I will leave this aside for now.

⁸Consultants found some of the examples that we predicted to be bad marginal. The ?? on (10b) indicates that at least one speaker found the intended reading vaguely available but difficult to access.

- (12) *Scrambling across matrix subject*
- a. *Low raised DP: optional coreferential pronoun in embedded clause*
 Ma-fana' kako [to-ya tamdaw]₇ mi-liyas-to (cingra₇).
 AV-know NOM.1SG ACC-that person AV-leave-ASP (NOM.3SG)
 'I know that [that person]₇, (s/he₇) left.'
- b. *High raised DP: no overt coreferential pronoun in embedded clause*
 Ma-fana' [to-ya tamdaw]₇ kako mi-liyas-to (*cingra₇).
 AV-know ACC-that person NOM.1SG AV-leave-ASP (*NOM.3SG)

2.4. Reflexive binding

Even though the embedded *pro* posited for base-generation cannot be overt, reflexive binding offers evidence for its presence. (13) serves as the baseline. (13a)-(13b) show that reflexives in Amis require a c-commanding antecedent. (13c) further shows that the antecedent must be in the local clause.

- (13) *Reflexives require a local c-commanding antecedent*
- a. Mi-komimit ci Mayaw cingraan-to i matini.
 AV-pinch NOM PN ACC.3SG-REFL P now
 'Mayaw is pinching himself now.'
- b. *Mi-komimit cingra-to ci Mayaw-an i matini.
 AV-pinch NOM.3SG-REFL ACC PN-ACC P now
 Intended: 'Mayaw is pinching himself now.'
- c. Ma-fana' [ci Panay]₇ [mi-komimit [ci Mayaw]₈ cingraan-to_{*7/8}].
 AV-know NOM PN AV-pinch NOM PN ACC.3SG-REFL
 'Panay₇ knows that Mayaw₈ is pinching himself_{*7/8}.'

In (14a), when the raised DP *ci Mayawan* follows the matrix adjunct *anini*, it can still bind the reflexive in the embedded clause, even though as (13c) above shows, long-distance binding is not allowed in Amis. This is predicted, given the reconstruction effects demonstrated above.

- (14) *Position of matrix adjunct*
- a. *Low raised DP can bind an embedded reflexive*
 Ma-fana' kako anini ci Mayaw-an mi-komimit cingraan-to
 AV-know NOM.1SG today ACC PN-ACC AV-pinch ACC.3SG-REFL
 inacila.
 yesterday
 'I know today that Mayaw pinched himself yesterday.'

b. *High raised DP can bind an embedded reflexive*

Ma-fana' kako ci Mayaw-an anini mi-komimit cingraan-to
 AV-know NOM.1SG ACC PN-ACC today AV-pinch ACC.3SG-REFL
 inacila.
 yesterday

However, as (14b) and (15b) show, when the raised DP precedes the matrix adjunct or when it is scrambled across the matrix subject, it is also possible for the raised DP to bind an embedded reflexive. Since the high raised DP otherwise cannot reconstruct and long-distance binding is not possible, (14b) and (15b) are evidence for an embedded *pro* co-indexed with the raised DP, even though it is not overt.

(15) *Scrambling across matrix subject*

a. Ma-fana' kako ci Mayaw-an mi-komimit cingraan-to.¹⁰
 AV-know NOM.1SG ACC PN-ACC AV-pinch ACC.3SG-REFL
 'I know that Mayaw pinched himself.'

b. *High raised DP can bind an embedded reflexive*

Ma-fana' ci Mayaw-an kako mi-komimit cingraan-to.
 AV-know ACC PN-ACC NOM.1SG AV-pinch ACC.3SG-REFL

2.5. Alternating with a prepositional object

Before I end §2, I briefly discuss a potential parallel between the high raised DP and proleptic objects in other languages. The structure I posited for matrix base-generation, as in (2b), is similar to previous proposals of prolepsis (Davies 2005, a.o.). It is known that proleptic objects can often alternate with a prepositional object. (16) gives examples from Madurese and Sundanese.

(16)a. *Madurese (Davies 2005:(26))*

Siti ngera (parkara) Hasan₇ ja' e-pareksa dokter juwa.
 PN AV.think (about) PN COMP PV-examine doctor DEM
 'Siti thinks about Hasan₇ that that doctor examined him₇.'

b. *Sundanese (Kurniawan 2011:(18))*

Hasan nyarita (ngeunaan) Siti₇ yén manéhna₇ embungeun di-pariksa
 PN AV.talk (about) PN COMP she refuse PV-examine
 (ku) paraji.
 (by) midwife
 'Hasan told about Siti₇ that she₇ refused to be examined by the midwife.'

¹⁰This example is structurally ambiguous since both binding an embedded reflexive is possible with both low raising and high raising.

In all of the examples we have seen so far, the raised DP is only marked for case, as in (17a). However, the high raised DP, but not the low raised DP, can in fact also be marked by a preposition, as in (17b).

- (17)a. Ma-fana' kako *to-ra* *tamdaw* mi-liyas-to.
AV-know NOM.1SG ACC-that person AV-leave-ASP
'I know that that person left.'
- b. Ma-fana' kako *i ra* *tamdaw* mi-liyas-to.
AV-know NOM.1SG P that person AV-leave-ASP

That *i ra tamdaw* in (17b) is a high raised DP is supported by (18b). The example shows that when a raised DP is marked by a preposition, it cannot reconstruct.

- (18) *Preposition-marked raised DP does not reconstruct*
- a. Ma-fana' kako *to sowl no-ra* *tamdaw* o *fali*.
AV-know NOM.1SG ACC word GEN-that person PRED wind
'I know that that person's words are meaningless/bluffing (lit. are wind).'
- b. #Ma-fana' kako *i sowl no-ra* *tamdaw* o *fali*.
AV-know NOM.1SG P word GEN-that person PRED wind

This possibility of alternating with a prepositional object is a potential parallel between high raising and prolepsis in other languages, but this will remain a suggestive observation for now.

To quickly sum up, in this section, I showed that the high raised DP, a raised DP that precedes a matrix adjunct or the matrix subject, cannot reconstruct.¹¹ It also does not permit a coreferential pronoun in the embedded clause. Nevertheless, reflexive binding provides support for an embedded silent *pro*.

3. Low raising is embedded topicalization

Low raising and high raising are different in yet another way. Only the low raised DP displays properties typical of topics. Based on these, I will posit that the low raised DP is a left-dislocated topic in the embedded clause.

¹¹Based on pronominal variable binding, V. Chen and Fukuda 2016 claimed instead that RTO in Amis does not show reconstruction effects. I do not have directly comparable data with theirs at the moment. Most of the data in this paper are based on speakers who allowed only the highest DP of the embedded clause to raise (see Footnote 3). Therefore, it's impossible to construct examples that are structurally identical to the one discussed in V. Chen and Fukuda 2016, (p.91:(8)), which involves raising the (NOM) patient across the (GEN) agent of an embedded PV clause. Moreover, the PV verb in their example is in fact affixed by *ma-* instead of *-en*. *Ma-* in this use is often treated as a variant of PV *-en*, but see Chen 2018 for reasons why they should not be lumped together.

3.1. Topic marking

First, the low raised DP can be marked by the topic marker. (19b) is an example of topicalization in a simplex clause. When the subject *ci Panay* in (19a) is topicalized, it can be optionally followed by the topic marker *i*, as in (19b).

(19)a. Mi-asip *ci Panay* to codad i matini.
 AV-read NOM PN ACC book P now
 ‘Panay is reading the books now.’

b. *Ci Panay (i)* mi-asip to codad i matini.
 NOM PN (TOP) AV-read ACC book P now

In (20a), the raised DP, *toya waco* ‘that dog,’ follows the matrix adjunct *anini*. This low raised DP can also be followed by the topic marker. This is not possible with the high raised DP. In (20b), the raised DP precedes the matrix adjunct and topic marking is not allowed.

(20)a. *Low raised DP can be marked by topic marker*
 Ma-fana’ *ci Panay anini to-ya waco (i)* mi-limek inacila.
 AV-know NOM PN today ACC-that dog (TOP) AV-hide yesterday
 ‘Panay knows today that that dog, (it) hid yesterday.’

b. *High raised DP cannot be marked by topic marker*
 Ma-fana’ *ci Panay to-ya waco (*i) anini* mi-limek inacila.
 AV-know NOM PN ACC-that dog (*TOP) today AV-hide yesterday

3.2. Interrogative wh-words

Second, the low raised DP cannot be interpreted as an interrogative wh-word. (21a) shows that, when the raised DP, *to cimáan* ‘who.ACC,’ precedes the matrix adjunct, the interrogative reading is not available. This contrasts with (21b). The interrogative reading is possible when the same wh-word precedes the matrix adjunct.

(21)a. *Low raised DP cannot be an interrogative wh-word*
 *Ma-fana’ kiso anini to *cimá-an* mi-liyas-to inacila?
 AV-know NOM.2SG today ACC who-ACC AV-leave-ASP yesterday
 Intended: ‘Who do you know today that left yesterday?’

b. *High raised DP can be an interrogative wh-word*
 Ma-fana’ kiso to *cimá-an* anini mi-liyas-to inacila?
 AV-know NOM.2SG ACC who-ACC today AV-leave-ASP yesterday
 ‘Who do you know today that left yesterday?’

3.3. Non-referential quantificational DP

Third, the low raised DP, as opposed to the high raised DP, cannot be a non-referential quantificational DP. This is another property typical of topics across languages (Reinhart 1981; Constant 2014). DPs modified by a (right) downward-entailing quantifiers, such as *few*, tend not be able to receive a referential reading. Therefore, it is more difficult to interpret them as topics.¹²

Note first, based on the data on topic marking in (20), for the following examples, I will assume that when a raised DP is followed by the topic marker *i*, it is low. Assuming this, (22b) shows that the low raised DP cannot be modified by a downward-entailing quantifier, such as *mámang* ‘few.’ (22b) becomes acceptable if *mámang* ‘few’ is replaced with *romaay* ‘some’ or *eminay* ‘all.’

(22) *Low raised DP cannot be non-referential*

- a. Ma-fana’ kako mi-liyas-to ko *mámang* a wawa inacila.
 AV-know NOM.1SG AV-leave-ASP NOM few LNK child yesterday
 ‘I know that few children left yesterday.’
- b. Ma-fana’ kako to *mámang* a wawa (**i*) mi-liyas-to
 AV-know NOM.1SG ACC few LNK child (*TOP) AV-leave-ASP
 inacila.
 yesterday
 Intended: ‘*I know that few children, (they) left yesterday.’
- c. Ma-fana’ kako to *roma-ay/emin-ay* a wawa (*i*)
 AV-know NOM.1SG ACC *some-SREL/all-SREL* LNK child (TOP)
 mi-liyas-to inacila.
 AV-leave-ASP yesterday
 ‘I know that some/all of the children, (they) left yesterday.’

3.4. Existential construction

Finally, the low raised DP cannot be introduced by the existential construction. The existential construction is typically used to introduce a non-topic. If the low raised DP is a topic, then we expect that it cannot be linked to the existential construction. This is what (23b) shows.

(23) *Existential construction*

- a. Ma-fana’ kako ira i parad ko *codad*.
 AV-know NOM.1SG exist P table NOM book
 ‘I know that there are books on the table.’

¹²Unless the discourse context makes a certain "proportion" a topic, but these contexts are hard to come by and don't occur often spontaneously. See Constant 2014 for some examples.

- b. Ma-fana' kako to codad (*i) ira i parad.
 AV-know NOM.1SG ACC book (*TOP) exist P table

To sum up, I discussed four properties of the low raised DP which suggest that it is a topic. This is another difference between low raising and high raising.

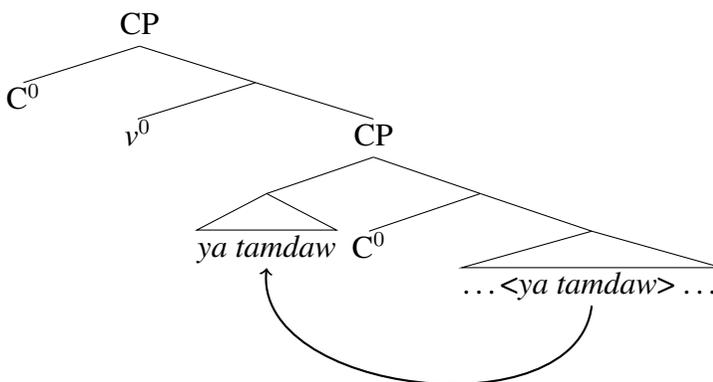
4. Proposal

The discussion in §2-§3 show that RtO in Amis, such as (24a), can in fact correspond to two structures. We can tease them apart by varying the position of matrix adjuncts or the matrix subject. Specifically, low raising and high raising show different behavior with respect to reconstruction, topichood, among other things.

- (24)a. Ma-fana' kako to-ya tamdaw mi-liyas-to inacula.
 AV-know NOM.1SG ACC-that person AV-leave-ASP yesterday
 'I know that that person left yesterday.'
- b. Ma-fana' kako mi-liyas-to ko-ya tamdaw inacula.
 AV-know NOM.1SG AV-leave-ASP NOM-that person yesterday

Based on these, I propose that RtO in Amis is derived by either embedded topicalization or matrix base-generation. (25)-(26) illustrate the derivations schematically. In (25), the low raised DP is merged in the embedded clause and topicalized to the left edge of the embedded clause. This accounts for the reconstruction effects and why it behaves like a topic.

- (25) *Low raised DP: topicalization to edge of embedded clause*

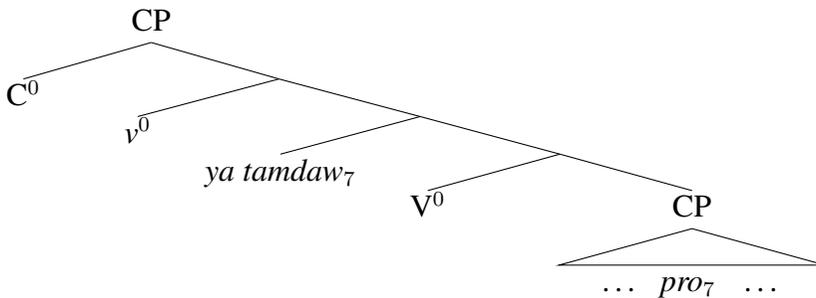


Moreover, low raising provides evidence for multiple case assignment to a single DP. That is, a DP in principle can receive case more than once. Specifically, in (24a), the raised DP appears with accusative case, instead of nominative case. How-

ever, the data illustrated in previous sections show that the low raised DP originates inside the embedded clause. In addition, the embedded clause in the examples we have seen so far is not structurally reduced. For instance, the embedded clause and the matrix clause have separate temporal specifications in several examples. All of these together suggest that the low raised DP in (24a) is assigned nominative first in the embedded clause. After it is topicalized, it receives an additional accusative case. More generally, assuming that CP is phasal in Amis, the data suggest that moving a DP out of the local phase domain (complement of a phase head) makes it accessible to another case assignment. This is consistent with recent studies on multiple case assignment (Béjar and Massam 1999; Baker and Vinokurova 2010; Levin 2017, a.o.).

Next, (26) illustrates high raising. The high raised DP is associated with a *pro* in the embedded clause. This explains why it can still bind an embedded reflexive, but at the same time does not show reconstruction effects.¹³

(26) *High raised DP: matrix base-generation*



Previous studies on Amis RtO proposed either that the raised DP is always derived by embedded A'-movement (Y. Chen 2008) or it is base-generated in the matrix clause (Liu 2011; V. Chen and Fukuda 2016). The current proposal is a combination of both approaches with minor differences. This is motivated by data that were not discussed in the previous works, including, in particular, reconstruction effects involving idioms and existential wh-indefinites.

4.1. High raising as embedded operator movement is insufficient

Before I conclude, I discuss an alternative analysis of high raising.¹⁴ This alternative is a minor modification to the matrix base-generation proposal posited above. I will show why this analysis is insufficient.

The alternative is given schematically in (27). The raised DP is base-generated in the matrix clause, but in addition, it is co-indexed with an operator. The operator is merged in the embedded clause and moved to the left edge of the embedded clause.

¹³To make the structure more concrete, in (26), I have the high raised DP merged in SpecVP as the matrix object. Nothing crucial hinges on this choice.

¹⁴I discuss another more feasible alternative in the appendix.

This has been proposed for RtO in Amis (Liu 2011) and Malagasy (Pearson 2005) and is similar to some analyses of *tough*-movement (e.g. Chomsky 1981).

(27) [CP ... Raised DP₇ ... [CP Op₇ [C' ... <Op₇> ...]]]

One advantage of this alternative is that it offers a simple explanation for an observation of the high raised DP that was left unaccounted for above. In §2.3, I showed that one of the differences between low raising and high raising is the possibility of having a coreferential pronoun in the embedded clause. This is not possible with high raising.

The alternative in (27) solves this puzzle easily. High raising is incompatible with an embedded coreferential pronoun, because in general, operator movement in Amis does not allow resumption.¹⁵ (28) gives an example with relativization.

(28) *Operator movement does not allow resumption*

Ma-fana' kako to-ya [mi-sawsaw*(-ay) (*cingra) to riko'
 AV-know NOM.1SG ACC-that AV-wash*(-SREL) (*NOM.3SG) ACC cloth
 inacila (a tamdaw)].
 yesterday LNK person
 'I know that one(/person) who washed the clothes yesterday.'

Moreover, this alternative is consistent with or at least not clearly inconsistent with the other properties of high raising discussed above. For example, the high raised DP can bind an embedded reflexive. Adopting this alternative, it is the operator that binds the reflexive instead of an embedded *pro*. In addition, the high raised DP does not reconstruct for the purpose of interpreting *wh*-indefinites. We may now assume that *wh*-words need to be interpreted literally in the scope of negation for the existential reading. It is less clear how we can account for why high raising also does not reconstruct for idiomatic interpretation. Previous studies on *tough*-movement, which have proposed a similar structure to this alternative, observed that idioms are possible with some *tough*-predicates but not all.

More importantly, there is an even stronger piece of evidence against this alternative. Operator movement and high raising show different verbal morphology. In (28) above, the verb of the relative clause is suffixed by *-ay*. This suffix is obligatory. If the alternative for high raising is on the right track, we predict that the embedded verb in examples with high raising should also be suffixed by *-ay*. As can be easily confirmed from previous examples, this is what we found.

5. Conclusion

To conclude, I proposed that RtO in Amis is derived by either embedded topicalization or matrix base-generation. What does this analysis suggest about RtO in other

¹⁵Resumption is acceptable only when the extraction takes place out of an island.

languages? We may want to think of RtO as one single construction. In some languages, it is derived by embedded movement. In some others, it involves matrix base-generation. In yet a few others, such as Amis or Sundanese (Kurniawan 2011), both derivations are available. However, this seems to be an odd interpretation of the Amis data. It is confusing to claim that there is one construction which can be derived in two different ways. Moreover, this raises an additional question about why the two derivations are not attested at the same time in some languages.

Alternatively, Amis RtO is always embedded topicalization. What I referred to as RtO by matrix base-generation or high raising is in fact more similar to prolepsis in other languages. In English, for example, RtO and prolepsis look distinct on the surface. In Amis, they happen to yield identical surface strings sometimes. This interpretation of the Amis data is more consistent with what we know are possible in other languages.

A. High raising: right extraposition of embedded clause?

Below I discuss an alternative analysis of high raising. The proposal in the main text, as it turns out, cannot account for two other observations of high raising. This alternative offers an explanation, but it itself involves a movement that is otherwise unmotivated. In addition, the proposal is grounded on a comparison with scope behavior in English, which is not necessarily transferable to Amis. A better understanding of quantifier scope in Amis is necessary for judging whether or not this alternative is superior to the analysis in the main text.

First, in the analysis of high raising in the main text, the high raised DP is base-generated in the matrix clause and is associated with an embedded *pro* only through co-indexation. As no movement occurs, we expect that high raising, as opposed to low raising, to be insensitive to syntactic islands. In fact, both high raising and low raising are island-sensitive, as (29) illustrates. Note that (29) is potentially compatible with either high raising or low raising, since no matrix adjunct is present and scrambling does not occur. That (29) is ruled out entirely suggests that both structures are constrained by islands.¹⁶

¹⁶For some speakers consulted, RtO was accepted more easily when the raised DP is explicitly contrastive. To make sure that the ungrammaticality of (29) is not due to insufficient contextual support, another clause (omitted) was added before the target sentence to support a contrastive reading. In addition, raising out of a coordinate structure is also ruled out, but can be repaired by resumption. V. Chen and Fukuda 2016 reported that raising-to-object in Amis is insensitive to adjunct islands or complex DP islands, and this supports a base-generation analysis. However, their example of raising out of an embedded adjunct island can potentially be interpreted as two separate clauses with the subject (the posited raised DP) in the embedded adjunct *pro*-dropped. (29), on the other hand, would be senseless if the embedded clause is a separate clause and the object in the relative clause is simply dropped. Moreover, their example of complex DP islands involves an atypical head-initial relative clause that was usually rejected by my consultants (and somehow the entire complex DP is not case-marked

- (29) *Kirami, ma-fana' kako to kafey mi-liyas-to [ko-ya
 but AV-know NOM.1SG ACC coffee AV-leave-ASP NOM-that
mi-'aca-ay <to kafey> a tamdaw].
 AV-buy-SREL ACC coffee LNK person
 Intended: 'But I know that the coffee, that person who bought (it) left.'

Moreover, the base-generation analysis of high raising is inconsistent with possible patterns of case-stacking on the raised DP. In Chen 2018, I argued that a DP may receive case more than once and when a DP is a contrastive topic, all cases it has received are pronounced. In particular, when a raised DP is a contrastive topic, it appears with three cases, as in (30A1). I argued in Chen 2018 that the inner two cases on the raised DP are assigned in the embedded clause. If the high raised DP is never part of the embedded clause, we expect that the same case-stacking pattern to be impossible on the high raised DP, contrary to what (30A2) shows.

- (30)Q. Do you know what those three children of Panay's bought yesterday?

A1. *Case-stacking on low raised DP*

... Kirami, ma-fana' kako anini to-ko-ni Kolas mi-'aca
 but AV-know NOM.1SG today ACC-NOM-GEN PN AV-buy

to cecay a mali inacila.

ACC one LNK ball yesterday

'(I don't know what Nakaw and Mayaw bought.) But I know today that [Kolas]_{CT}, (s/he) bought a ball yesterday.'

A2. *Case-stacking on high raised DP*

?Kirami, ma-fana' kako to-ko-ni Kolas anini mi-'aca to
 but AV-know NOM.1SG ACC-NOM-GEN PN today AV-buy ACC

cecay a mali inacila.

one LNK ball yesterday

Working on RtO in English, Neeleman and Payne 2018 observed that in English, when a raised DP precedes a matrix adverbial, such as *sincerely* in (31b), the raised DP cannot be reconstructed back into the embedded clause. Thereofre, In (31b), the raised DP *some young lady* cannot scope under *every senator* in the embedded clause. This contrasts with (31a). When the raised DP precedes the same matrix adverbial, both scope readings are available. Based on this, they proposed that (31b) is derived by right-adjoining the matrix adverbial and right extraposition of the embedded clause.¹⁷

in their example). We will need more data for a fairer comparison.

¹⁷Halpert and Zeller 2015 proposed a similar analysis.

(31) *Neeleman and Payne 2018:(19)*

a. $\exists > \forall, \forall > \exists$

John *sincerely* believed *some young lady* to be likely to dance with every senator.

b. $\exists > \forall, * \forall > \exists$

John believed *some young lady sincerely* to be likely to dance with every senator.

Adopting this for high raising in Amis, the high raised DP originates inside the embedded clause and is raised into the matrix clause.¹⁸ The embedded clause later right-extraposes. This accounts for island sensitivity, case connectedness as shown by case-stacking, and absence of reconstruction effects.¹⁹

This alternative still does not explain why high raising is incompatible with an embedded coreferential pronoun, as discussed in §2.3. Moreover, this analysis necessarily includes a movement that is otherwise unmotivated. In addition, absence of reconstruction as discussed in Neeleman and Payne 2018 concerns quantifier scope, whereas in Amis, the data are based on idioms and existential *wh*-indefinites. We do not know at the moment if quantifiers also behave in the same way in Amis.²⁰ Given these, I will leave the decision between this alternative and the base-generation analysis for later.

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¹⁸Raising the raised DP out of the embedded clause is necessary given the word order in Amis (the raised DP precedes the embedded verb). This extra step is optional to derive the word order in English RtO.

¹⁹Neeleman and Payne 2018 did not discuss reflexives, but their analysis will also need to allow reconstruction for reflexives, given (i) below (thanks to Keir Moulton (p.c.) for the example). Thus, that the high raised DP in Amis can still bind an embedded reflexive is not necessarily problematic for this alternative.

(i) I believe John strongly to have embarrassed himself.

²⁰If we adopt this alternative, the analogy between high raising and prolepsis, based on prepositional objects, is also lost.

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