On the unavailability of argument ellipsis in Kaqchikel

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1 Introduction

"Argument Ellipsis" refers to the interpretation of empty nominal categories that require full-fledged structure at LF, as revealed by sloppy and quantificational readings of those null arguments (***e***)

For example, Japanese null arguments can be interpreted with either strict or sloppy identity (1).

(1) a. Taroo-wa [**zibun-no musume**-ga eigo-o hanasu to] omotteiru.
Taroo-TOP self-GEN daughter-NOM English-ACC speak C thinks
'Taro$_i$ thinks that **his$_i$ own daughter** speaks English.'

b. Ken-wa [***e*** furansugo-o hanasu to] omotteiru.
Ken-TOP French-ACC speak C thinks
(i) 'Ken thinks that **Taro's daughter** speaks French.' strict: ***e*** = 'her'
(ii) 'Ken$_j$ thinks that **his$_j$ own daughter** speaks French.' sloppy: ***e*** = 'his$_j$ own daughter'

However, overt pronominals cannot receive sloppy interpretations (2):

(2) Ken-wa [***kanojo***-ga furansugo-o hanasu to] omotteiru.
Ken-TOP she-NOM French-ACC speak C thinks
a. 'Ken thinks that **Taro's daughter** speaks French.' strict: ***e*** = 'her'
b. *'Ken$_j$ thinks that **his$_j$ own daughter** speaks French.' *sloppy: ***e*** = 'his$_j$ own daughter'

This suggests that null arguments cannot only be *pro* (identical to overt pronouns in all but pronunciation).

Previous work shows that argument ellipsis effects are also not attributable to...

- Verb-stranding VP-Ellipsis (e.g. Oku, 1998; Saito, 2004; Takahashi, 2008; *contra* Otani and Whitman, 1991)
- A null indefinite *pro* (e.g. Saito, 2007; Takahashi, 2008; *contra* Hoji, 1998)

A particularly influential alternative has been to link the presence / absence of argument ellipsis in a given language or construction to the presence / absence of ϕ-agreement, as in (3):

(3) **Anti-Agreement Hypothesis for Argument Ellipsis:** (Saito, 2007; Şener and Takahashi, 2010)
Argument ellipsis is possible only if the argument is not ϕ-agreed with.

TODAY: We demonstrate that the Anti-Agreement Hypothesis makes incorrect predictions for the interpretation of null arguments in Kaqchikel.

- Otaki et al. (2013) show that Kaqchikel lacks argument ellipsis for both subjects and objects. In light of (3), they say this is explained **because Kaqchikel verbs agree** with both subjects and objects.
- However, we show that, in Agent Focus constructions, **even arguments that are not Agreed with disallow argument ellipsis**.
- Data from Kaqchikel Agent Focus thus, in fact, provide empirical and conceptual evidence that the Anti-Agreement Hypothesis for the availability of argument ellipsis is wrong.

2 Background

2.1 Argument ellipsis and Agree

Consider (1) again. The argument in (1bi) could be a null pronoun, *pro*, as in (2). But (1bii) is interpreted as if 'self's child' is there but unpronounced:

(4) **Argument ellipsis in (1bii):**
Ken-wa [~~**zibun-no musume**-ga~~ furansugo-o hanasu to] omotteiru.
Ken-TOP self-GEN daughter-NOM French-ACC speak C thinks

The same ambiguity appears with quantifiers (Takahashi, 2008):

(5) **Quantificational argument ellipsis in Japanese:**
a. Hanako-ga **taitei-no sensei**-o sonkeishiteiru.
Hanako-NOM most-GEN teacher-ACC respect
'Hanako respects most teachers.'
b. Soshite Taro-mo ***e*** sonkeishiteiru.
and Taro-also respect
(i) 'Taro also respects **those teachers that Hanako respects**.' referential: ***e*** = 'them'
(ii) 'Taro also respects **most teachers**.' quantificational: ***e*** = 'most teachers'

However, languages with null arguments vary in their the availability of argument ellipsis.

(6) **No argument ellipsis in Spanish:**
a. Maria cree que **su propuesta** sera aceptada.
Maria believes that her proposal will.be accepted
'Maria$_i$ believes that **her**$_{i/j}$ **proposal** will be accepted.'
b. Juan también cree que ***e*** sera aceptada.
Juan also believes that will.be accepted
(i) 'Juan also believes that **Maria's proposal** will be accepted.' strict: ***e*** = 'it'
(ii) *'Juan$_j$ also believes that **his**$_j$ **proposal** will be accepted.' *sloppy: ***e*** = 'his$_j$ proposal'

- Japanese null subjects and objects can be *pro* (referential) or ellided arguments.
- Spanish and Italian null arguments are always *pro* (strict) (but see Duguine 2014).

There is a Poverty of the Stimulus problem here. The (un)availability of argument ellipsis in a given language or construction is not apparent from child-directed speech (e.g. Sugisaki, 2009; Ohtaki, 2014). The availability of argument ellipsis must be predictable *solely* from independent properties of the language.

Note furthermore that availability of argument ellipsis is not simply a language-level parameter:

(7) **Turkish null objects allow argument ellipsis:**
a. Can [***pro* anne-si**]-ni eleştir-di-∅.
John his mother-3SG-ACC criticize-PAST-3SG
'John$_i$ criticized **his**$_i$ **mother**.'
b. Mete-yse ***e*** öv-dü-∅.
Mete-however praise-PAST-3SG
(i) 'But Mete praised **John's mother**.' strict ***e*** = 'her'
(ii) 'But Mete$_j$ praised **his**$_j$ **mother**.' sloppy ***e*** = 'his$_j$ mother'

(8) **Turkish null subjects *do not* allow argument ellipsis:**

a. Can [[***pro* oğl-u**] İngilizce öğren-iyor-∅ diye] bil-iyor-∅.
John his son-3SG English learn-PRES-3SG C know-PRES-3SG
'John$_i$ knows [that **his$_i$ son** learns English].'

b. Mete-yse [***e*** Fransızsa öğren-iyor-∅ diye] bil-iyor-∅.
Mete-however French learn-PRES-3SG C know-PRES-3SG
(i) 'But Mete knows [that **John's son** learns French].' strict ***e*** = 'him'
(ii) *'But Mete$_j$ knows [that **his$_j$ son** learns French].' *sloppy ***e*** = 'his$_j$ son'

ϕ-agreement *is* a position-specific parameter, allowing for intra-linguistic variability in the interpretation of null pronouns under the Anti-Agreement Hypothesis:

(9) **Anti-Agreement Hypothesis for Argument Ellipsis:** (Saito, 2007; Şener and Takahashi, 2010)
Argument ellipsis is possible only if the argument is not ϕ-agreed with.

Under (9), **subject argument ellipsis is not possible in Turkish because Turkish has subject ϕ-agreement**. Object argument ellipsis is possible because there is no object ϕ-agreement.

Note: If (28) is correct, languages like Spanish and Italian must have *null* object ϕ-agreement, while Japanese has *no* ϕ-agreement at all.

Two predictions of the Anti-Agreement Hypothesis (Şener and Takahashi, 2010):

- Argument that are exceptionally not agreed with should *permit* argument ellipsis (10–11).
- Argument that are exceptionally agreed with should *deny* argument ellipsis (12).

(10) **Subjects do not agree in Turkish ECM embeddings:**
Pelin [ben-i/sen-i/on-u lise-ye başla-yacak] san-ıyor-∅.
Pelin I/you/(s)he-ACC high.school-DAT start-FUT think-PRES-3SG
'Pelin thinks I/you/(s)he will start high school.' (no agreement on 'start')

(11) **Argument ellipsis is possible for these non-agreeing subjects:**

a. Pelin [[***pro* yegen-i**]-ni lise-ye başla-yacak] san-ıyor-∅.
Pelin her niece-3SG-ACC high-school-DAT start-FUT think-PRES-3SG
'Pelin$_i$ thinks **her$_i$ niece** will start high school.'

b. Suzan-sa [***e*** ilkokul-a başla-yacak] san-ıyor-∅.
Susan-however grade.school-DAT start-FUT think-PRES-3SG
(i) 'But Susan thinks that **Pelin's niece** will start grade school.' strict ***e*** = 'him'
(ii) 'But Susan$_j$ thinks that **her$_j$ niece** will start grade school.' sloppy ***e*** = 'her$_j$ niece'

(12) **Subject honorific agreement blocks argument ellipsis in Japanese**

a. Taroo-wa [**zibun-no sensei**-ga eigo-o o-hanasi-ninaru to] omotteiru.
Taroo-TOP self-GEN teacher-NOM English-ACC HON-speak-HON C thinks
'Taro$_i$ thinks that **his$_i$ own teacher** speaks English.'

b. Hanako-wa [***e*** furansugo-o o-hanasi-ninaru to] omotteiru.
Hanako-TOP French-ACC HON-speak-HON C thinks
(i) 'Hanako thinks that **Taro's teacher** speaks French.' strict: ***e*** = 'him/her'
(ii) ?*'H$_j$ thinks that **her$_j$ own teacher** speaks French.' ?*sloppy: ***e*** = 'her$_j$ own teacher'

2.2 Argument ellipsis in Kaqchikel

Kaqchikel has overt subject and object ϕ-agreement and null arguments. $\Rightarrow$ It is a proving ground for the Anti-Agreement Hypothesis.

Kaqchikel is an ergative-absolutive head-marking language. **Set A** markers cross-reference transitive subjects (and nominal possessors) and **Set B** markers cross-reference intransitive subjects and transitive objects.

(13) **Kaqchikel agreement and null arguments (Otaki et al., 2013)**

a. X-**e**-**ru**-tïj nimamaixku' a Xwan, iwir.
PRF-**B3PL**-**A3SG**-eat apple CL Juan yesterday
'Juan ate apples yesterday.'

b. Po ***e*** man x-**∅**-**u**-tïj ta ***e*** wakami.
but NEG PRF-**B3SG**-**A3SG**-eat NEG now
'But (he) didn't eat (it) today.'

Otaki, Sugisaki, Yusa, and Koizumi (2013) check the interpretation of null subjects and objects in Kaqchikel and report that **Kaqchikel has no argument ellipsis**.

(14) **Null subjects do not allow argument ellipsis:**

a. Ri a Xwan n-∅-u-na'ojij [chi **ri** **ru-mes** tikirel y-e-ru-chäp ch'oy].
the CL X. IMPF-B3sg-A3sg-know C the A3sg-cat can IMPF-B3pl-A3sg-catch mice
'Juan$_i$ thinks **his$_i$** **cat** can catch mice.'

b. Chuqa' ri a Kalux n-∅-u-na'ojij [chi ***e*** tikirel y-e-ru-chäp ch'oy].
also the CL K. IMPF-B3sg-A3sg-know C can IMPF-B3PL-A3SG-catch mice
(i) 'Carlos also thinks **Juan's cat** can catch mice.' strict: ***e*** = 'it'
(ii) *'Carlos$_j$ also thinks **his$_j$** **cat** can catch mice.' *sloppy: ***e*** = 'his$_j$ cat'

(15) **Null objects do not allow argument ellipsis:**

a. Ri a Xwan x-∅-u-kanoj **ri** **r-ak'wal**.
the CL X. PRF-B3SG-A3SG-look.for the A3SG-child
'Juan looked for **his$_i$** **child**.'

b. Chuqa' ri a Karlux x-∅-u-kanoj ***e***.
also the CL K. PRF-B3SG-A3SG-look.for
(i) 'Carlos also looked for **Juan's child**.' strict: ***e*** = 'him/her'
(ii) *'Carlos$_j$ also looked for **his$_j$** **child**.' *sloppy: ***e*** = 'his$_j$ child'

They also show that Kaqchikel disallows quantificational argument ellipsis (cf (5)):

(16) **Null objects do not allow quantificational argument ellipsis:**

a. Y-e-ru-kamelaj **oxi'** **tijonela'** ri a Xwan.
IMPF-B3PL-A3SG-respect three teacher the CL Juan
'Juan respects three teachers.'

b. A Kalux chuqa' n-∅-u-kamelaj ***e***.
CL Carlos also IMPF-B3SG-A3SG-respect
(i) 'Carlos also respects **those teachers that Juan respects**.' referential: ***e*** = 'them'
(ii) *'Carlos also respects **three teachers**.' *quantificational: ***e*** = 'three teachers'

Otaki et al. (2013) take this data from Kaqchikel to support the Anti-Agreement Hypothesis (28), **because Kaqchikel shows agreement with both subjects and objects**. This is true in all of their examples:

> "The central claim from these observations is that the parameter of argument ellipsis should relate the availability of argument ellipsis to the absence of overt agreement..."

3 New data: Argument ellipsis in Agent Focus

Kaqchikel does not always agree with both subjects and objects! In particular, here we test for argument ellipsis in **Agent Focus** clauses (see Stiebels, 2006; Preminger, 2014; Erlewine, 2016).

In Agent Focus, the verb has only a Set B marker. This Set B marker exhibits omnivorous agreement, agreeing with one argument following a salience hierarchy (17) (Preminger, 2014).

(17) 1st/2nd > 3rd plural > 3rd singular

(18) and (19) illustrate the behavior of omnivorous agreement in accordance with (17).

(18) **3rd plural arguments control agreement over 3rd singular arguments**

a. Ja rje' x-**e/*∅**-tz'et-ö rja'.
FOC them PRF-**B3PL/*B3SG**-see-AF him
'It was THEM who saw him.'

b. Ja rja' x-**e/*∅**-tz'et-ö rje'.
FOC him PRF-**B3PL/*B3SG**-see-AF them
'It was HIM who saw them.'

(19) **1st singular arguments control agreement over 3rd plural arguments**

a. Ja rje' x-**i/*e**-tz'et-ö yïn.
FOC them PRF-**B1SG/*B3PL**-see-AF me
'It was THEM who saw me.'

b. Ja yïn x-**i/*e**-tz'et-ö rje'.
FOC me PRF-**B1SG/*B3PL**-see-AF them
'It was ME who saw them.'

Preminger (2014): There is only one ϕ-probe in Agent Focus verbs. The argument that is higher (18) is Agreed with; the other argument is not Agreed with, at all.

This Agent Focus Person Restriction indicates that only one ϕ-probe is present:

- In Agent Focus constructions at most one of the two core arguments can be 1st/2nd person (20a).
- When both arguments are *overtly* agreed with, no such restriction exists (20b).

(20) **The (un)availability of multiple local person arguments (Preminger, 2014)**

a. *Ja rat x-**in/at/∅**-ax-an yïn.
FOC you(SG) PRF-**B1SG/B2SG/B3SG**-hear-AF me
'It was YOU that heard me.'

b. Ja röj x-**ix-qa**-tz'et.
FOC us PRF-**B2PL-A1PL**-see
'It was US who saw y'all.'

1st/2nd person arguments must be Agreed with (Béjar and Rezac, 2003).

- The ungrammaticality of (20a) indicates that there is only one ϕ-probe.
- If there were a second, null ϕ-probe in (20a), the string would be grammatical, just like (20b).

Recall: Argument ellipsis is correlated with (the lack of) agreement. In particular, arguments that are *exceptionally not agreed with* should permit argument ellipsis (if the presence / absence of ϕ-agreement is the sole predictor of the (un)availability of argument ellipsis).

Let's now consider *null arguments* that are not Agreed with.

Prediction: Just in case the object in an Agent Focus construction is not agreed with, i.e. it is the lower argument on (18), it should permit argument ellipsis.

This prediction is not borne out!

First, we test the availability of sloppy interpretations for null possessed arguments:

(21) **Non-Agreeing null object does not allow argument ellipsis:**

A: Ja [ri ma Kab'la i ri ya Ixtoj] x-**e**-kano-n **ri k-ak'wal**.
FOC the CL K. and the CL I. PRF-B3PL-look.for-AF the A3pl-child
'It's [KAB'LA AND IXTOJ]$_i$ that looked for **their$_i$ child**.'

B: Manäq, ja [ri ma Q'anil i ri ya Nikte]$_j$ x-**e**-kano-n ***e***.
no FOC the CL Q. and the CL N. PRF-B3PL-look.for-AF
(i) 'No, it's [Q'ANIL AND NIKTE] that looked for **Kab'la and Ixtoj's child**.' strict
(ii) *'No, it's [Q'ANIL AND NIKTE]$_j$ that looked for **their$_j$ child**.' *sloppy

In (21), the subject is plural, triggering third-plural Set B agreement. The third-singular object is not Agreed with (cf. Example (19)):

- The Set B probe agrees with the plural 'Kab'la and Ixtoj' in both A and B; **'their child' *ri kak'wal* in A and *e* in B are not Agreed with**. And yet, a null object in the same position (21B) cannot be argument ellipsis.
- This result runs contrary to the predictions of the Anti-Agreement Hypothesis.

Note: It's not possible to test null subjects in Agent Focus, because Agent Focus requires an extracted transitive subject.

Next, we test the availability of quantificational interpretations for null arguments:

(22) **Non-Agreeing null object does not allow argument ellipsis:**

A: Ja rïn x-**in**-kano-n **oxi' tijonel-a'**.
FOC 1SG PRF-B1SG-look.for-AF three teacher-PL
'It's ME that looked for **three teachers**.'

B: Manäq, ja rïn x-**in**-kano-n ***e***.
no FOC 1SG PRF-B1SG-look.for-AF
(i) 'No, it's ME that looked for **those teachers**.' referential: ***e*** = 'them'
(ii) *'No, it's ME that looked for **three teachers**.' quantificational: ***e*** = 'three teachers'

In (22), the subject is 1st singular, triggering Set B agreement. The 3rd plural object is not Agreed with (cf. Example (20)):

- The Set B probe agrees with the 1st singular argument 'rïn' in both A and B; **'three teachers' *oxi' tijonel-a* in A and *e* in B are not Agreed with**. And yet, a null object in the same position (22B) cannot be argument ellipsis.
- This result runs contrary to the predictions of the Anti-Agreement Hypothesis.

The lack of argument ellipsis in Kaqchikel does not correlate with ϕ-agreement. If the presence/absence of ϕ-agreement for a particular argument is the sole predictor of argument ellipsis, Kaqchikel Agent Focus demonstrates that the Anti-Agreement Hypothesis (28) is wrong.

4 Failure to Agree and the Anti-Agreement Hypothesis

Kaqchikel also provides a conceptual argument against the *logic* of the Anti-Agreement Hypothesis.

(23) **The logic of the Anti-Agreement Hypothesis (Saito, 2007):**
- a. In argument ellipsis, the ***e*** position copies its antecedent DP at LF.
- b. At PF, there is really nothing in the ***e*** position. ϕ-agreement with ***e*** will fail.
- c. If ϕ-agreement probes do not successfully Agree, they crash.

See also Takahashi (2013) for a derivation of the Anti-Agreement Hypothesis under a PF-Deletion approach to argument ellipsis. The basic logic (especially ingredients b and c) is the same as (23).

Recall that in Kaqchikel Agent Focus (more generally in K'ichean), the Set B marker follows a salience hierarchy (24). Restated in terms of a ϕ-probe, Preminger (2014) proposes the following logic:

(24) 1st/2nd > 3rd plural > 3rd singular =(17)

(25) **The logic of K'ichean Set B (based on Preminger, 2014):**
- a. Probe for a *1st or 2nd person* DP (not agreed with Set A), Agree with it. If not found...
- b. Probe for a *plural* DP (not agreed with Set A), Agree with it. If not found...
- c. Set B is default/null = $\emptyset$

This result is natural because third-singular DPs do not have any ϕ-features (Harley and Ritter, 2002).

In other words, if both arguments are third-singular, *the Set B probe does not Agree with anything*. This result is grammatical with $\emptyset$ Set B:

(26) **No Set B agreement, but grammatical:**
Ja ri a Xwan x-∅-kano-n ri r-ak'wal.
FOC the CL X. PRF-B(DEFAULT)-look.for-AF THE A3SG-child
'It's JUAN that looked for his child.'

(27) **Conclusion of Preminger (2014):**
ϕ-agreement probes can fail to Agree, without triggering ungrammaticality.

Now recall the logic of the Anti-Agreement Hypothesis (28), especially part c: **If ϕ-agreement probes do not successfully Agree, they crash.**

Kaqchikel AF—and phenomena in other languages, see Preminger (2014)—shows that the failure of Agree does not lead to a crash (26). **This undermines the logic of the Anti-Agreement Hypothesis (27).**

But an alternative explanation is needed for the apparent correlation between argument ellipsis and non-agreement in Turkish and Japanese.

5 Conclusion: Towards a better account of argument ellipsis

Today:

- Otaki, Sugisaki, Yusa, and Koizumi (2013) show that Kaqchikel null subjects and objects cannot be argument ellipsis; they lack sloppy and quantificational readings. They claim this supports the Anti-Agreement Hypothesis.

  (28) **Anti-Agreement Hypothesis for Argument Ellipsis:** (Saito, 2007; Şener and Takahashi, 2010) Argument ellipsis is possible only if the argument is not ϕ-agreed with.

- In Kaqchikel Agent Focus clauses, only one argument is Agreed with. **We show that arguments that are not Agreed with similarly disallow argument ellipsis** (cf the exceptional argument ellipsis with non-Agreeing subjects in Turkish (11)).

- Furthermore, Person Restrictions in K'ichean AF shows that (a) third-person DPs do not need to be ϕ-Agreed with and (b) the Set B ϕ-probe will not crash if it does not find a goal. **This undermines Saito's logic of the Anti-Agreement Hypothesis**.

Lessons for the theory of argument ellipsis:

Recall: Argument ellipsis poses a Poverty of the Stimulus problem. We want a reliable, independent, cross-linguistically available predictor of the presence/absence of argument ellipsis effects.

Kaqchikel can inform alternatives to the Anti-Agreement Hypothesis as well.

(i) Arguement Ellipsis and free word order

The presence/absence of argument ellipsis has been connected to free word order (Oku, 1998; Saito, 2004; Takahashi, 2008).

- Free word order languages allow selectional requirements to be satisfied at LF.
- In these languages, argument positions can be empty in overt syntax and filled by LF-copying.
- LF-copying yields argument ellipsis effects.

This cannot be correct for Kaqchikel, because Kaqchikel *has free word order* (e.g. England, 1991; Broadwell, 2000; Otaki et al., 2013)

(29) **Kaqchikel word order variability (exx Otaki et al., 2013)**

a. X-∅-u-b'a ri tz'i' ri me's.
PRF-B3SG-A3SG-bit the dog the cat
(i) 'The cat bit the dog.' (VOS)
(ii) 'The dog bit the cat.' (VSO)

b. Ri tz'i' x-∅-u-b'a ri me's.
the dog PRF-B3SG-A3SG-bite the cat
'The dog bit the cat.' (SVO)

(ii) Argument Ellipsis and (non-)fusional case morphology

The presence/absence of argument ellipsis has been connected to case morphology (Otaki, 2012; Neeleman and Szendrői, 2007; Ohtaki, 2014).

- K^0, the locus of case morphology, triggers ellipsis of its complement.
- If K^0 must fuse to its complement for exponence, ellipsis will render the case morpheme without a host, triggering ungrammaticality.
- If K^0 is non-fusional, no ungrammaticality will arise under argument ellipsis.

This cannot be correct for Kaqchikel, because Kaqchikel *has no (overt) case morphology*.

(30) **Arguments are unmarked in Kaqchikel (exx Preminger, 2014)**

a. Rat x-∅-aw-ax-aj ri achin.
you(SG) PRF-B3SG-A2SG-hear-ACT the man
'You heard the man.'

b. Ri achin x-a-r-ax-aj rat.
the man PRF-B2SG-A3SG-hear-ACT you(SG)
'The man heard you.'

c. Ri achin x-∅-uk'lun.
the man PRF-B3SG-arrive
'The man arrived.'

d. Rat x-at-uk'lun.
you(SG) PRF-B2SG-arrive
'You arrived.'

(iii) Arguement Ellipsis and nominal size

The presence/absence of argument ellipsis has been connected to the NP/DP distinction in argument size (e.g. Tomioka, 2003, 2014; Cheng, 2013; Bošković, to appear).

- In general, elements of type <e, t>, e.g. VP and NP but not DP, can undergo ellipsis.
- Only those languages/constructions which permit NP-arguments will display argument ellipsis.

This might be on the right track for Kaqchikel. The data presented above involve attempts to elide DPs, as indicated by the determiner *ri* in the antecedent. ⇒ Argument ellipsis is predicted to be blocked.

Future direction: Identify environments in which NP-arguments can be generated in Kaqchikel and test the availability of argument ellipsis in those constructions/positions.

Such environments may include the incorporation antipassive (García Matzar and Rodríguez Guaján, 1997; Ajsivinac and Henderson, 2011; Heaton, 2016; see also, e.g., Coon 2010 on Ch'ol VOS word order) and *-oj* nominalization (Imanishi, 2014).

(31) ***-oj* nominalization only allows bare NP objects (Imanishi, 2014):**

a. X-∅-qa-cäp [choy-oj *che'*].
PRF-B3SG-A1PL-begin [cut-AP *tree*]
'We began to cut trees.'

b. *X-∅-qa-cäp [choy-oj **ri / nojel / oxi'** *che'*].
PRF-B3SG-A1PL-begin [cut-AP **DET / all / three** *tree*]
'We began to cut the / all / three trees.'

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