

Patterns of relativization in Austronesian and Tibetan

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1 Introduction

Today I discuss the grammars of “Philippine-type” Austronesian languages¹ — illustrated here with Tagalog — and Tibetan and highlight one striking similarity (at least on the surface):

► Both languages/groups use **verbal affixes to mark the choice of relative clause pivot**.

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|--|--|
| (1) Agent and theme relatives in Tagalog: | (2) Agent and theme relatives in Tibetan: |
| a. <u>bata</u> =ng [b<um>ili ng tela]
child=LK <PRF.AV>buy GEN cloth
'child who bought cloth' | a. [deb 'bri-mkhan] <u>mi</u>
book write-MKHAN person
'person(s) who wrote/writes book(s)' |
| b. <u>tela</u> =ng [b<in>ili-∅ ng bata]
cloth=LK <PRF>buy-PV GEN child
'cloth that the child bought' | b. [pad.ma-s 'bri-pa]-'i <u>dep</u>
Pema-ERG write-PA-GEN book
'book(s) that Pema wrote' |

Each language/group is known for having a rich inventory of such affixes:

(3) Verbal morphology on relativized verbs, by choice of pivot:

- | | |
|----------------------------------|----------------------------------|
| a. <u>Tagalog</u> : (perfective) | b. <u>Tibetan</u> : (perfective) |
| <um> agents | -mkhan བཀམས་ agents |
| -an locatives/goals | -sa ས་ locatives/goals |
| i- instruments/beneficiaries | -yag ཡག་ instruments |
| -∅ themes | -pa པ་ themes |

However, the parallels between these systems have not been investigated before, as these patterns have been described under very different banners:

- for Philippine-type languages, as part of these languages' *voice systems* (see e.g. Keenan and Comrie, 1977; Kroeger, 1991/1993; Guilfoyle, Hung, and Travis, 1992; Richards, 2000; Aldridge, 2002, 2004; Rackowski and Richards, 2005; Erlewine, Levin, and Van Urk, 2017);
- for Tibetan and other Tibeto-Burman languages, as *nominalizations* (see e.g. Matisoff, 1972; Herring, 1991; Noonan, 1997; Bickel, 1999; DeLancey, 2002; Noonan, 2008; Genetti et al., 2008; Genetti, 2011; DeLancey, 2011).

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¹“Philippine-type” refers to a particular class of Austronesian languages with shared grammatical characteristics; see e.g. Wolff 1996; Himmelmann 2002, 2005; Blust 2010, 2013; Erlewine and Levin to appear. They comprise the Austronesian languages of the Philippines, most of Taiwan, northern Borneo and Sulawesi, and Madagascar.

Today: These patterns continue to exhibit striking parallels when we consider the behavior of *long-distance relativization*, previously undescribed in Tibetan.

- Such data challenge the analysis of Tibetan relativization as built exclusively on nominalizations (DeLancey, 1999, 2002; Noonan, 2008).
- We can productively understand the similarities between such verbal morphology in Philippine-type languages and Tibetan — as well as their differences — in a familiar way.

Roadmap §2 Philippine-type languages §3 Tibetan §4 Synthesis and discussion

2 Philippine-type languages

2.1 Austronesian voice systems and the “subject-only” restriction

The morphological alternation observed in Tagalog relative clauses above reflects a more general alternation between different clause types:²

(4) **Tagalog voice alternation:** (Rackowski and Richards, 2005: 566)

- B<um>ili **ang bata** ng tela sa palengke para sa nanay.
 <PRF.AV>buy ANG child GEN cloth DAT market for DAT mother
 ‘The child bought cloth at the market for mother.’ Actor Voice (AV)
- B<in>ili-∅ ng bata **ang tela** sa palengke para sa nanay.
 <PRF>buy-PV GEN child ANG cloth DAT market for DAT mother
 ‘The child bought **the cloth** at the market for mother.’ Patient Voice (PV)
- B<in>ilh-an ng bata ng tela **ang palengke** para sa nanay.
 <PRF>buy-LV GEN child GEN cloth ANG market for DAT mother
 ‘The child bought (the) cloth at **the market** for mother.’ Locative Voice (LV)
- I-b<in>ili ng bata ng tela sa palengke **ang nanay**.
 BV-<PRF>buy GEN child GEN cloth DAT market ANG mother
 ‘The child bought (the) cloth at the market for **mother**.’ Ben./Instr. Voice (BV/IV)

- Every verb has one of these “voice” markers, *not just in relative clauses*.
 - The choice of voice marker correlates with the choice of *ang*-marked argument (4), which I call the “**subject**” today. We can think of *ang* as **nominative** (or, for some authors, absolutive³) case, which appears to override an underlying case marker. But there is significant debate on these points...⁴
 - Keenan and Comrie 1977: These languages have a “**subject-only**” \bar{A} -extraction restriction. This explains the correlation between verbal morphology and the choice of pivot in relative clauses, as in (1) above.

²Abbreviations: GEN = genitive, DAT = dative; PRF = perfective, ASP = other aspect.

³See Aldridge 2004 and references there for the analysis of these languages as ergative, and see also Erlewine, Levin, and Van Urk 2017 and Chen 2017 for recent critical discussion of this approach.

⁴There is even debate over basic terminology: some call the subject “pivot,” “focus,” “topic,” or “trigger.”

2.2 Long-distance relativization

Clause-embedding verbs such as ‘say’ also participate in voice alternations.

(5) **Voice alternation of clause-embedding verb:** (based on Rackowski and Richards, 2005: 586)

- a. **Nag-sabi** ang kalabaw [na masarap ang bulaklak].
PRF.AV-say ANG water.buffalo that delicious ANG flower
 ‘The water buffalo said [that the flower is delicious].’
- b. S<in>-abi-∅ ng kalabaw [na masarap ang bulaklak].
<PRF>say-PV GEN water.buffalo that delicious ANG flower
 ‘The water buffalo said [that the flower is delicious].’

Although the embedded clauses in (5) are uniformly introduced with *na* ‘that,’ never *ang*, we hypothesize that it is the grammatical “subject” in (5b).

Now consider relativization over an embedded clause argument — “long-distance” relativization:

(6) **Long-distance (LD) relativization of an embedded goal:** (based on *ibid.*: 586)

kalabaw	[na	}	*nag-sabi ang guro <PRF.AV>say ANG teacher	[na	bi-bigy-an	ng	lalaki	ng	bulaklak	__]]
w.b.	that	}	s<in>-abi-∅ ng guro <PRF>say-PV GEN teacher	that	ASP-give-LV	GEN	man	GEN	flower	

‘water buffalo [that the teacher said [that the man would give a flower to __]]’

- ▶ The relative clause pivot must be the “subject” of the embedded clause. In addition, **the embedded clause itself must be the “subject” of the higher, embedding verb**, as determined by the choice of voice morphology.⁵

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This same basic description for LD relativization holds of other Philippine-type languages such as Bikol (Erlewine and Lim, 2019) as well as other, non-Philippine-type Austronesian languages such as Madurese (Davies, 2003), as well as the Nilotic language Dinka (Van Urk and Richards, 2015), which has been shown to also exhibit an Austronesian-type voice system (Erlewine, Levin, and Van Urk, 2015, 2017).

2.3 Summary

1. Relative clauses in Philippine-type Austronesian languages reflect the choice of pivot because of (a) their rich inventory of “voices,” including options for some oblique arguments to be “subject,” together with (b) a “subject-only” restriction on relativization.
2. In LD relativization, the embedded clause is required to be the higher verb’s “subject”; i.e. the subject-only restriction holds for each verb in a complex chain of relativization.

⁵‘Say’ must be in PV in (6) to support long-distance relativization. Other verbs use different voices to make the embedded clause the “subject,” e.g. LV for ‘believe.’

3 Tibetan

3.1 Relativization as nominalization

Verbs in Tibetan end with a series of auxiliaries (AUX) encoding tense/aspect/evidential values (Tournadre and Jiatsso, 2001; Vokurková, 2008). Relativization involves a distinct verb form where the auxiliaries are replaced by a “nominalizer” ending.⁶

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|----------------------------------|---|
| (7) བཀ་ཤིས་ཀྱིས་དེབ་འབྲི་གི་དུག། | (8) དེབ་འབྲི་མཁན་མི་ |
| bkra.shis-kyis deb 'bri-gi.dug. | → [RC ___ deb 'bri-mkhan] mi |
| Tashi-ERG book write-AUX | book write-MKHAN person |
| 'Tashi is writing a book.' | 'person who wrote/writes/is writing a book/books' |

Relativization in Tibeto-Burman languages has been studied almost exclusively under the umbrella of *nominalization*, a major topic of study in Tibeto-Burman linguistics.

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| (9) -pa event nominalization:
བོད་སྐད་ཤེས་པ་དེ་གལ་ཆེན་པོ་རེད། | (Tournadre and Sangda Dorje, 2003: 282) |
| [[bod.skad shes-pa] de] gal chen.po red. | |
| Tibetan language know-PA DEM importance great COP.AUX | |
| 'Knowing Tibetan is very important.' | |

From this perspective, relative clauses simply represent another use of nominalizations, as *verbal argument nominalizations*.

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|---|--|
| (10) -pa theme nominalization:
པད་མས་བཟོས་པ་དེ་ | (11) -pa object relative:
པད་མས་བཟོས་པའི་མོག་མོག་དེ་ |
| pad.ma-s bzos-pa de | [pad.ma-s bzos-pa]-'i mog.mog de |
| Pema-ERG make-PA DEM | Pema-ERG make-PA-GEN momo DEM |
| 'what Pema made' | 'the momo that Pema made' -pa.'i > -pe |

Noonan 2008: “in adnominal modification... at least in Bodic, they are probably best viewed as NPs juxtaposed to the NPs they are modifying, the two NPs constituting, therefore, a sort of appositional structure”

- (12) **Relativization = argument nominalization modifier + NP:**

argument nominalization_i(=GEN) + NP_i (based on Noonan, 1997: 383)

The genitive marker is strongly preferred for all pre-nominal relatives, except for subject relatives with *-mkhan* (DeLancey, 1999).⁷

Semantically, we could cash out this intuition with intersective modificational semantics:

- (13) [(12)] = [[argument nominalization]] ∩ [[NP]]

⁶I employ the common Wylie transliteration for Tibetan orthography here, with periods indicating syllable boundaries where there is no morpheme boundary. ERG = ergative, DEM = demonstrative, PL = plural.

⁷Despite DeLancey’s claim, some of my speakers volunteered pre-nominal subject relatives with *-mkhan* followed by a genitive. Similar data with *-mkhan*-GEN is found in Seth Cable’s field notes (via p.c.) from another speaker.

3.2 The “nominalizers”

(14) “Nominalizers” by choice of pivot: expanding on (3b)

- mkhan* མཁན་ agents/subjects⁸
- sa* ས་ locatives/goals
- yag* ཡག་ instruments and imperfective themes
- pa* པ་ perfective themes

(Mazaudon, 1978; Kim, 1996; DeLancey, 1999; Denwood, 1999; Tournadre and Sangda Dorje, 2003)

- There is an interaction with aspect for theme relativization, which will be relevant later.

(15) **-sa locative relative:**

ཕད་མས་མོག་མོག་བཟོ་སའི་ས་ཆ་དེ་

[_{RC} pad.ma-s ___ mog.mog bzo-sa]-’i sa.cha de
 Pema-ERG dumpling make-SA-GEN place DEM
 ‘the place that Pema made/makes dumplings’

-sa.’i > -se

-sa reflects a gap with e.g. dative/locative (-la) or relative (-nas) case. (See Hill 2012.)

(16) **-yag instrumental relative:**

ཕད་མས་མོག་མོག་བཟོ་ཡག་འི་མོག་ཟངས་དེ་

[_{RC} pad.ma-s ___ mog.mog bzo-yag]-’i mog.zangs de
 Pema-ERG dumpling make-YAG-GEN steamer DEM
 ‘the steamer that Pema made/makes dumplings with’

-yag.’i > -ye

-yag reflects an instrumental (-gis/kyis/gyis/s, homophonous with ergative) gap, or imperfective theme gap.

There are various reasons to suspect that -pa somehow differs from the other suffixes:

1. Classical Tibetan used only -pa. Cognates of -pa are found across the Tibeto-Burman family (DeLancey, 2002; Noonan, 2008). Non-pa endings originated as various nominal endings, with their function later extended to productive relative clauses (DeLancey, 2002):
 - In Classical Tibetan, -mkhan had only one use, as a derivational suffix for trades: *shing-mkhan* = wood-MKHAN ‘carpenter’
 - The locative nominalizer -sa derives from the root *sa* ‘place.’
2. DeLancey 1999: 234: -pa is “unstressed and subject to drastic phonological reduction... the other three show compound phonology; this is consistent with their derivational origin.”
3. For verbs with distinct perfective and imperfective stems, -pa takes the perfective stem while all others take the imperfective stem: e.g. ‘make’ = PRF *bsos-* /sø/; IMPF *bso-* /so/.

⁸As DeLancey 1999: 239–242 notes, the use of -mkhan roughly correlates with the gap being an ergative (-gis/kyis/gyis/s) case position, but -mkhan is also used for relativization over possessor subjects of verbs of possession, which are dative (-la).

3.3 Long-distance relativization

- ▶ We now consider “long-distance” (LD) relativization in Tibetan. No previous work has described LD relatives in Tibetan — nor, to my knowledge, in any other Bodic language.
- All data comes from my fieldwork conducted in Dharamsala, India in summers 2018 and 2019, and reflect the judgments of nine speakers.⁹

(17) Embedded clause under ‘say’:

བཀྲ་ཤིས་ཀྱིས་པད་མས་མོག་མོག་བཟོས་སོང་ལཔ་སོང།

bkra.shis-kyis [pad.ma-s mog.mog bzos-song] lap-song.

Tashi-ERG Pema-ERG dumpling make-AUX say-AUX

‘Tashi said [that Pema made dumplings].’

LD theme relatives

(18) བཀྲ་ཤིས་ཀྱིས་པད་མས་བཟོས་སོང་ལཔ་པའི་མོག་མོག་དེ་ཙོ་

[_{RC} bkra.shis-kyis [pad.ma-s ___ bzos-***pa/song**] lap-***pa/*song**]-’i mog.mog de-tso

Tashi-ERG Pema-ERG make-***PA/AUX** say-PA/***AUX-GEN** momo DEM-PL

‘those momo [that Tashi said [that Pema made ___]]’

- ▶ **-pa only goes on the higher verb of the relative clause.** The embedded clause with a gap is a regular, finite clause.

LD subject relatives

(19) བཀྲ་ཤིས་ཀྱིས་མོག་མོག་བཟོ་མཁན་ལཔ་པའི་མི་དེ་

[_{RC} bkra.shis-kyis [___ mog.mog bzo-**mkhan/*song**] lap-***pa/*mkhan**]-’i mi de

Tashi-ERG momo make-MKHAN/***AUX** say-PA/***MKHAN-GEN** person DEM

‘the person [that Tashi said [___ made/makes momo]]’

- ▶ **For LD subject relatives, there is subject relativization marking -mkhan on the embedded verb, then -pa on the higher clause!**

LD locative relatives

(20) བཀྲ་ཤིས་ཀྱིས་པད་མས་མོག་མོག་བཟོ་ས་ལཔ་པའི་ས་ཆ་དེ་

[_{RC} bkra.shis-kyis [pad.ma-s ___ mog.mog bzo-**sa/*song**] lap-***pa/*sa**]-’i sa.cha de

Tashi-ERG Pema-ERG momo make-SA/***AUX** say-PA/***SA-GEN** place DEM

‘the place [that Tashi said [Pema made/makes momo ___]]’

⁹Most were born in Tibet and moved to India earlier in life; others were born in India. All grew up speaking Tibetan as their first language and attended Tibetan language medium schools. I especially thank Kunga Choedon, Pema Yonden, and Yepo.

LD instrumental relatives

(21) བཀྲ་ཤིས་ཀྱིས་པད་མས་མོག་མོག་བཟོ་ཡག་ལཔ་པའི་མོག་ཟངས་དེ་

[_{RC} bkra.shis-kyis [pad.ma-s ___ mog.mog bzo-yag/*song] lap-pa/*yag]-’i mog.zangs de
 Tashi-ERG Pema-ERG momo make-YAG/*AUX say-PA/*YAG-GEN steamer DEM
 ‘the steamer [that Tashi said [Pema made/makes momo with ___]]’

Interim summary and analysis

-pa fundamentally differs in syntactic function from the other “nominalizers.”

- ▶ -pa marks the edge of entire relative clauses (to be revised), whereas the other markers reflect a particular kind of local gap.
- -pa and the other “nominalizers” cannot cooccur on the same verb, e.g. *bso-sa-pa. In local (non-LD) relatives with a marked (subject/locative/instrument) gap, the marked, non-pa “nominalizer” (-mkhan/so/yag) wins out.

3.4 Another word order and the nature of -pa

Long-distance relativization can also take another form:

(22) **Another LD subject relative:**

བཀྲ་ཤིས་ཀྱིས་ལཔ་པའི་མོག་མོག་བཟོ་མཁན་མི་དེ་

[_{RC} bkra.shis-kyis ___ lap-pa]-’i [___ mog.mog bzo-mkhan] mi de
 Tashi-ERG say-PA-GEN momo make-MKHAN person DEM
 ‘the person [that Tashi said [___ made/makes momo]]’ = (19)

This word order appears to involve **optional movement of the embedded clause**; cf (19).

- ▶ The semantics of (22) forms an argument against each V-“nominalizer” being a pre-built argument nominalization which intersectively modifies the NP:

$$\begin{aligned} \llbracket (22) \rrbracket &= \llbracket \text{the person that Tashi said made/makes momos} \rrbracket \\ &\neq \text{THE}(\llbracket \text{what Tashi said} \rrbracket \cap \llbracket \text{who made/makes momos} \rrbracket \cap \llbracket \text{person} \rrbracket) \end{aligned}$$

Now consider this word order variant for LD object relativization:

(23) **Another LD object relative:**

བཀྲ་ཤིས་ཀྱིས་ལཔ་པའི་པད་མས་བཟོས་པའི་མོག་མོག་དེ་ཙོ་

[_{RC} bkra.shis-kyis ___ lap-pa]-’i [pad.ma-s ___ bzos-pa]-’i mog.mog de-tso
 Tashi-ERG say-PA-GEN Pema-ERG make-PA-GEN momo DEM-PL
 ‘those momo [that Tashi said [that Pema made ___]]’ = (18)

- ▶ Now both clauses get -pa marking! Cf (18)

It then cannot be that *-pa* marks the highest verb / edge of the entire relative clause.

- ▶ The contrast between (23) and (18) above teaches us that **each *-pa* corresponds to its own step of movement**, with the optional movement of an embedded clause counting as a separate step from the movement of the head itself.¹⁰

On the position of embedded clauses

(24) **Embedded clauses generally cannot be postposed:**

བཀྲ་ཤིས་ཀྱིས་ལཔ་སོང་པ་དྲ་མས་མོག་མོག་བཟོས་སོང།

*bkra.shis-kyis ___ lap-song, [pad.ma-s mog.mog bzos-song].
 Tashi-ERG say-AUX Pema-ERG dumpling make-AUX
 Intended: ‘Tashi said [that Pema made dumplings].’ =(17)

- The placement of the embedded clause after the higher verb (‘say’ in (22–23)) is specifically made possible in LD relativization.

On the choice of “nominalizer” suffixes

- ▶ We’ve concluded that (a) *-mkhan/sa/yag* indicate a marked local gap, and (b) *-pa* marks the final position of an unmarked movement, including all relative clause edges.

(25) **LD agent relative, with higher *-yag*:**

བཀྲ་ཤིས་ཀྱིས་བསམ་ཡག་འི་མོག་མོག་བཟོ་མཁན་མི་དེ་

[bkra.shis-kyis ___ bsam-yag]-’i [___ mog.mog bzo-mkhan] mi de
 Tashi-ERG think-YAG-GEN dumpling make-MKHAN person DEM
 ‘the person [that Tashi thinks [___ made/makes dumplings]]’

- *-yag* appears in (25) because the higher verb ‘think’ is imperfective; cf (22).
- Recall that theme relatives with perfective descriptions involve *-pa*; with imperfective descriptions involve *-yag*.
- ▶ **The choice of *-pa/yag* on ‘say/think’ behaves as if we are relativizing over the theme of the higher verb, ‘say/think’!** Relativizing morphology responds locally for each step of movement along the way.

¹⁰See e.g. Georgi 2017 for discussion of extraction marking morphology which distinguishes final vs intermediate steps of movement.

4 Synthesis and discussion

Both Philippine-type Austronesian languages and Tibetan utilize verbal morphology to distinguish relative clauses with different pivots.

- At first glance, it appears that this parallel may be only superficial, and due to two very different mechanisms:
 - Philippine-type languages have a “subject-only” restriction on \bar{A} -extraction, together with multiple “voices” to make different arguments the “subject.”
 - Tibetan relative clause forms are distinct from regular finite verbs.
- However, the behavior of LD relativization in Philippine-type languages and Tibetan make these systems look even more similar:

In LD relativization, each verb reflects the thematic role of its local pivot gap *or* the embedded clause containing the pivot gap.

This description applies to both Philippine-type languages and Tibetan, if we limit our attention to Tibetan LD relatives with displaced embedded clauses, as in §3.4 rather than in §3.3.

An alternative approach to Austronesian voice systems allows for an even clearer unification:

- Voice systems in Philippine-type languages are often described as *argument structure alternations* (e.g. Guilfoyle, Hung, and Travis, 1992; Aldridge, 2004, 2008; Legate, 2012):
 - The choice of voice determines the choice of “subject.”
 - Only the subject can be relativized (Keenan and Comrie, 1977).
- But there’s another approach to voice systems on the market (see e.g. Chung, 1994; Richards, 2000; Pearson, 2001, 2005; Chen, 2017; Erlewine, Levin, and Van Urk, 2017, in prep.):
 - Ⓐ **Philippine-type voice morphemes are *responses* to extraction** (e.g. relativization) of a particular type of argument;
 - Ⓑ **Every clause is required to choose one nominal to participate in extraction** or a similar process, feeding Ⓐ.

We can relate Ⓑ to the “prefield” requirement in Germanic V2:

(26) **Swedish V2 alternation:**

- | | |
|--|--|
| a. <i>Han</i> känner ___ faktiskt Ingrid.
he knows actually Ingrid
'He actually knows Ingrid.' | b. <i>Ingrid</i> känner han faktiskt ___.
Ingrid knows he actually
'He actually knows Ingrid.' |
|--|--|

- ③ = A single argument in each clause — by default, a *topic* — is chosen and...
 - (a) in Germanic V2: moves to clause-initial position;
 - (b) in Philippine-type languages: receives a particular marker/case (Tagalog *ang*);
 - (c) in Dinka (Nilotic; Erlewine, Levin, and Van Urk 2015, 2017, in prep.): moves to clause-initial position *and* receives a particular case.
- But \bar{A} -extraction such as relativization or *wh*-movement proceeds through the ③-position/process, blocking movement of a topic to initial position:

(27) **Topicalization disallowed within Swedish relative clauses:**

- a. den flicka [_{RC} som har kammat sitt hår]
the girl that has combed her hair
- b. *den flicka [_{RC} som *sitt hår* har kammat ___]
the girl that her hair has combed (Franco, 2012: 326)

In Philippine-type languages, assuming that the assignment of *ang* and \bar{A} -extraction underlyingly involve (effectively¹¹) the same process (Chen 2017; Erlewine, Levin, and Van Urk 2017, in prep.), and both feed ③, we derive the apparent “subject-only” extraction restriction.

- **Tibetan relativization suffixes are responses to extraction** of a particular type of argument — just like in Philippine-type languages ③ — **but Tibetan has no requirement for some argument to participate in such a process** — unlike Philippine-type languages ③.
 - These verb forms in Tibetan thus appear only in relativization, not in regular clauses. — and for *-pa*, only when it marks the position of a final movement.
 - This “response” mechanism ③ applies *per clause*, unifying the behavior of LD relatives in Tibetan and Philippine-type languages.

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¹¹For example, for Erlewine and Lim 2019, nominative is assigned by T and \bar{A} -extraction involves C, but both necessarily target the same argument.

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