

Interpretation of internally-headed relative clauses in Shan*

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1 Introduction

- Shan is a Southwestern Tai language related to Thai that is spoken in parts of Myanmar, Thailand, India, China, and Laos (Glick and Moeng 1991).
- Some dialects of Shan, particularly the Yǔn variety, use internally headed relative clauses (IHRCs) in addition to post head relative clauses (Post-Head) (1).^{1,2}

(1) Relative clauses in Shan

- a. [ʔǎn háw hǎn **lik** nâj] mán lǝŋ. b. [**lik** [ʔǎn háw hǎn] nâj] mán lǝŋ.
 COMP 1.SG see book this 3.SG red book COMP 1.SG see this 3.SG red
 'The/A book that I see is red.' (IHRC) 'A book that I see is red.' (Post-Head)

- Internally headed relative clauses have not been reported in any other Tai languages (Warotamasikkhadit 1972; Morev and Moskalev 1979; Prasithrathsint and Yaowapat 2009).
- Shan speakers from Northern Shan State and Kengtawng find IHRCs like (1a) ungrammatical.
- The availability of IHRCs in Shan is also somewhat typologically unusual because SVO languages are less likely to have internally headed relative clauses:
 - Cole (1987) had proposed that IHRCs were only found in OV languages.
 - Recently, IHRCs have been found in verb initial languages like Seediq and Tagalog (Aldridge 2004) and SVO like Buli (Hiraiwa 2003).

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¹The data on Shan comes primarily from my fieldwork on Shan working with a Shan speaker in Ithaca, NY from January 2016 to present. My Shan consultant is from a city called Meiwai, which is near Papun in Kayin (Karen) State in Myanmar, and speaks the Yǔn Shan dialect—which is very different from the Taunggyi dialect. She also speaks Karen and received her education in Burmese. She has been in the United States for 5 years and speaks English, as well. Data was collected using a variety of elicitation methods: direct translation, grammaticality judgments, telling short stories, felicity judgments on grammatical sentences in specific contexts.

²Glossing conventions: 1: first person, 3: third person, ACC: accusative, ANIM: animal, ASP: aspect, CL: classifier, COMP: complementizer, GEN: genitive, HUM: human, IMPF: imperfect, IRR: irrealis, LOC: locative, NOM: nominative, PAST: past tense, PERF: perfect, PL: plural, ROUND: round, SG: singular, SM: scope marker, TOP: topic, VAL: validator

– WALS identifies 58/580 OV languages and 5/608 VO languages with IHRCs (Dryer and Haspelmath 2013).

- I will argue that Yǔn Shan IHRCs are island sensitive and non-maximal which complicates the typology of IHRCs.

2 Yǔn Shan relative clauses

- Shan has fairly strict SVO word order, as in (2).
- Shan lacks definite articles and makes use of classifiers, as in (3).

- (2) háw hǎn lik. (3) háw hǎn mǎa sǎam tǝ.
 1.SG see book 1.SG see dog three CL.ANIM
 'I see the/a book.' 'I see three dogs.'

- In order to distinguish between internally and externally headed relatives, I use:
 - the complementizer, *ʔǎn*, to identify the left edge of the clause, and
 - *wánnâj* ('today'), to identify the right edge of the clause.

Extracted object as matrix subject

- (4) [[ʔǎn Nan Li stú **kàj** wánnâj]] mán pǝn sǎ khǎaw.
 COMP Nan Li bought chicken today 3.SG be color white
 'The/A chicken Nan Li bought today was white.' (IH)
- (5) [**kàj**_i [ʔǎn Nan Li stú _ti wánnâj]] mán pǝn sǎ khǎaw.
 chicken COMP Nan Li bought today 3.SG be color white
 'The/A chicken Nan Li bought today was white.' (Post-Head)

Extracted object as matrix object

- (6) Saj Kham ʔǎw [[ʔǎn Nan Li stú mǎa **kàj** wánnâj]].
 Saj Kham take COMP Ms. Li buy come chicken today
 'Saj Kham took the/a chicken Nan Li bought today.' (IH)
- (7) Saj Kham ʔǎw [**kàj**_i [ʔǎn Nan Li stú mǎa _ti wánnâj]].
 Saj Kham take chicken COMP Ms. Li buy come today
 'Saj Kham took the/a chicken Nan Li bought today.' (Post-Head)

Extracted object - example from story

- (8) Luk kǝ kǎaŋ nâj hankǝ mán stú sàw [ʔǎn mán cǝk **sykhó hǎw**]
 child CL.HUM middle TOP he buy put COMP he like clothes PL
 'The middle child, he bought and put the clothes that he liked,' (Shan)

Extracted Subject

- (9) [ʔǎn **kàj** cǝn khaw jù nâj] mán pǝn sǎ khǎaw.
 COMP chicken eat rice IMPF this 3.SG be color white
 'The/A chicken eating rice is white.' (IH)

- (10) [kàj [ʔǎn cǐn khaw jù] nâj] mán pěn sǐ khǎaw.
 chicken COMP eat rice IMPF this 3.SG be color white
 ‘The/A chicken eating rice is white.’ (Post-Head)

Extracted Object

- (11) Saj Kham ʔǎw [ʔǎn Nan Li pǎn lukʔǒn kàj wánnâj].
 Saj Kham take COMP Nan Li give child chicken today
 ‘Saj Kham took the/a chicken Nan Li gave to the child today.’ (IH)
- (12) Saj Kham ʔǎw [kàj [ʔǎn Nan Li pǎn lukʔǒn wánnâj]].
 Saj Kham take chicken COMP Nan Li give child today
 ‘The/A chicken eating rice is white.’ (Post-Head)

3 Island sensitivity and maximality - IHRC typology

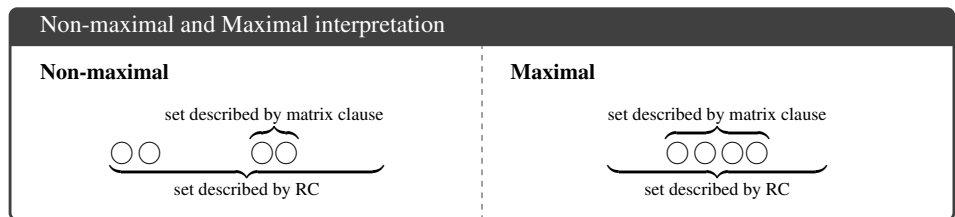
- Some analyses of IHRCs have noted an apparent correlation between maximal interpretations and wh-island constraints (Grosu 2002; Watanabe 2004), leading them to categorize IHRCs as one of two types:
 - Lakhota: restrictive/non-maximalizing, island insensitive
 - Quechua, Japanese: maximalizing, island sensitive

3.1 Islands

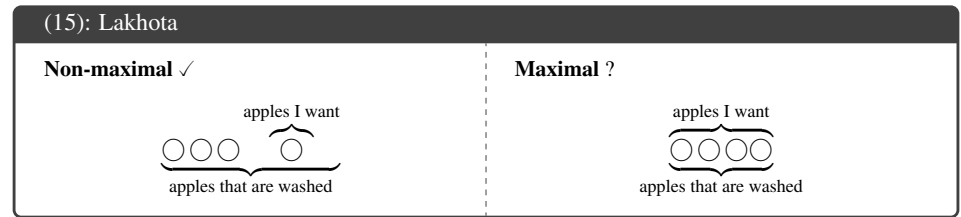
- Lack of island sensitivity has typically been used as evidence that syntactic A'-movement is not taking place in these constructions and that instead binding is responsible for the available interpretation (Bonneau 1990; Grosu 2000; Watanabe 2004).
- Languages like Lakhota are not sensitive to islands, as (13) shows.
- Languages like Japanese have IHRCs that are sensitive to islands, as shown in (14).

- (13) [[Wichota **wowapi** wə yawa pi cha] ob woʔuglaka pi ki] he L.A. Times e.
 many-people paper a read PL ind with we-speak PL the that L.A. Times be
 ‘The newspaper that we talk to many people who read (it) is the L.A. Times.’
 (Lakhota; Williamson 1987, cited in Watanabe 2004: (8))
- (14) *[John-ga [subarashii ronbun-o kaita hito]-o homete-ita no]-ga shuppan-sareta.
 John-NOM excellent paper-ACC wrote person-ACC praised-had C-NOM publish-PASS
 ‘An excellent paper which John had praised the person who wrote (it) was published.’
 (Japanese; Watanabe 2004: (4b))

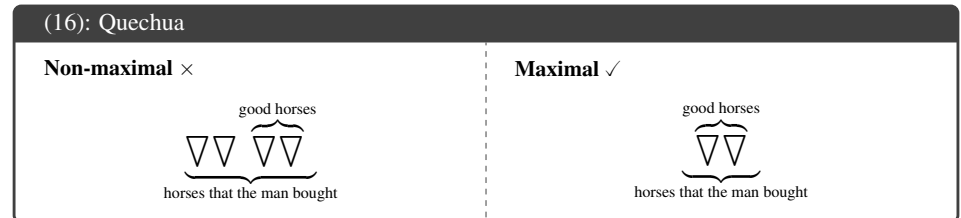
3.2 Maximality



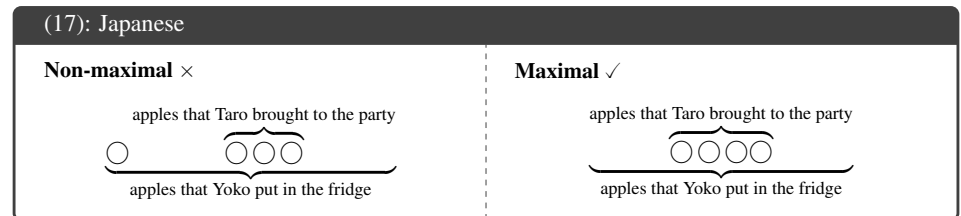
- Analyses derive the maximal interpretation of some IHRCs in various ways: an e-type analysis (Shimoyama 1999); feature checking with a null D of a wh-phrase (Watanabe 2004); quantificational disclosure (Grosu and Landman 2012); and trace conversion (Erlewine and Gould 2016).
 - Grosu and Landman (1998) noted that this difference in maximal/non-maximal IHRCs correlates to the presence (Lakhota) or absence (Quechua/Japanese) of an overt D, but this has been challenged by Gur languages, which have definite articles and maximalizing IHRCs (Hiraiwa and colleagues 2017).
- (15) [[Thaspa wəzi taya yuzaža pi] cha] wachi
 apple a-IRR well wash PL SM I-want
 ‘I want an apple (nonspecific) that is well washed.’
 (Lakhota; Williamson 1987, cited in Grosu & Landman 1998: (92a))



- (16) [Nuna **ishkay bestya**-ta ranti-shqa-n] alli bestya-m ka-rqo-n
 man two horse-ACC buy-PERF-3 good horse-VAL be-PAST-3
 ‘The two horses that the man bought were good horses.’
 Unavailable interpretation: ‘Two horses that the man bought were good horses.’
 (Quechua; Dayal 1991, cited in Grosu & Landman 1998: (93a))



- (17) Taro-wa [[Yoko-ga reezooko-ni **kukkii-o hotondo** irete-oita]-no]-o paatii-ni
 Taro-TOP Yoko-NOM refrigerator-LOC cookie-ACC most put-AUX-NM-ACC party-to
 motte itta.
 brought
 ‘Yoko put most cookies in the refrigerator and Taro brought them, *some to the party.’
 (Japanese; Shimoyama 1999, cited in Grosu 2002: (28b))



- Thus, Japanese and Quechua seem to have maximalizing, island sensitive IHRCs, and Lakota seems to have non-maximalizing, island insensitive IHRCs.

Summary		
	Maximalizing	Island sensitive
Lakota	×	×
Quechua, Japanese	✓	✓

4 The case of Yǔn Shan

4.1 Sensitivity to islands

- The Shan equivalent of (13) is not acceptable, as shown in (18).

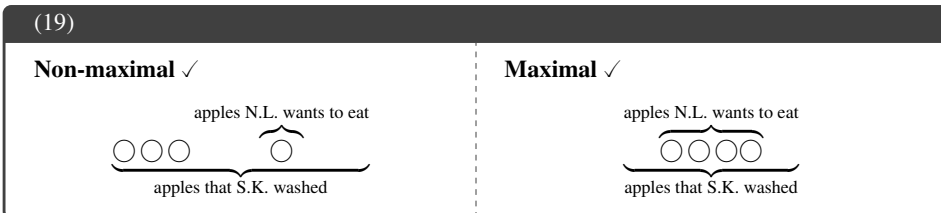
(18) *[ʔǎn Nan Li waa kǎn táŋhen [ʔǎn kón ʔǎn **lik** nâj]] mán lěŋ
 COMP Nan Li spoke together with COMP person read book this 3 red
 Intended: The book that Nan Li spoke with the people who read (it) is red.

- Thus, Shan appears to be sensitive to island constraints.

4.2 Maximality

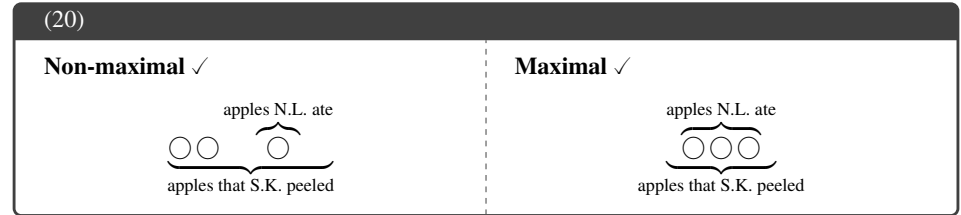
- Given that Shan lacks overt determiners and is sensitive to island constraints, we might expect its IHRCs to be maximalizing.
- However, its IHRCs appear to allow non-maximal interpretations, giving another counterexample to the correlation noted by Grosu & Landman (1998).

(19) Nan Li khaj cǐn [ʔǎn Saj Kham te láaŋ **mámô** nâj]. Mán khaj cǐn hwí.
 Nan Li want eat COMP Saj Kham will wash apple this 3.SG want eat CL.R
 ‘Nan Li wants to eat apples that Saj Kham will wash. She wants to eat one.’

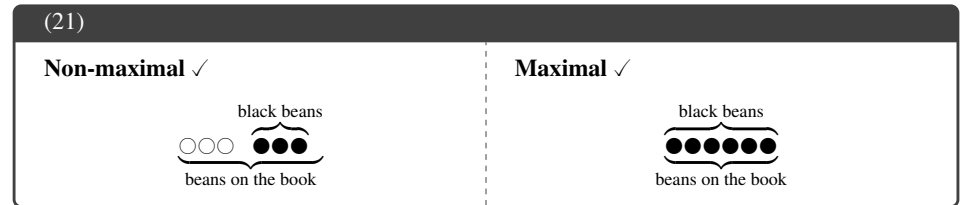


(20) Nan Li cǐn pěn [[ʔǎn Saj Kham pỳk **mámô** sǎam hwí] nâj].
 Nan Li eat up COMP Saj Kham peel apple 3 CL.ROUND this
 ‘Nan Li ate apples that Saj Kham peeled which are three in number.’

- Number of apples Saj Kham peeled: 3
- Apples Nan Li ate: some number of the peeled apples



(21) [ʔǎn **thò** mí nǚ lik khǎaw nâj] mán lǎm. Thò kamphoŋ nâj mán mà lǎm.
 COMP bean exist on book white this 3.SG black bean some this 3.SG NEG black
 ‘Beans on the white book are black. Some beans are not black.’
 (Context: There are beans on the book and nowhere else.)



- Yǔn Shan does not fit with the typology that connects island sensitivity of IHRCs with a maximal interpretation.

Summary		
	Maximalizing	Island sensitive
Lakota	×	×
Quechua, Japanese	✓	✓
Shan	×	✓

5 The case of Navajo

- Navajo seems like a good candidate to fit with the Shan IHRC type, with one caveat.
- Grosu (2012) amends his typology by introducing data found in Navajo.
- Navajo, like Shan, has IHRCs that are non-maximal but sensitive to island constraints, as in (22-23).

(22) [Bilasana hazho’o tanasgis-ígfí] nisin
 apple carefully washed-REL I-want
 ‘I want an apple that is well washed.’ (Navajo; Grosu 2012: (4))

(23) *[Hastiin **téechaaj** bishxash-éç] be’eldooh néidiitá-(n)éç nahaʔ’in.
 man dog bit-REL gun pick-up-REL bark
 ‘The dog that the man who was bitten by (it) picked up the gun is barking.’
 (Navajo; Grosu 2012: (49b))

- Grosu analyzes this as being a case of ‘cyclic re-merger’ until the head is outside of the relative clause.
 - Strong quantifiers in Navajo seem to obligatorily be interpreted with matrix clause scope, as in (24).
- (24) [John Bill **chidí t’áá ałtso** (**dóó dzi’izi dilchxoshí t’áá ałtso**) yaa nayiisnii’ęę] t’éiyá
John Bill car 3 all and motor cycle 3 all from 3.3.buyP.REL only
nizhónígo nidaajeeh.
well da.3.run.1
‘All the cars (and all the motorcycles) that John bought from Bill —and only those —run well.’
(Navajo; Grosu 2012: (48))
- Grosu claims that the source of island sensitivity is ‘traceable to whatever factors require matrix scope for IHs [internal heads]’ (Grosu 2012: 25).
 - Grosu notes that this category fits with Hastings’s (2004) claim that Cuzco Quechua IHRCs are restrictive when strongly quantifying and maximalizing otherwise.
 - However, quantifiers seem to take surface scope in Yǔn Shan:
- (25) Nan Li cǐn [**màmǎ** mǐmǒt [ʔǎn Saj Kham pǐk] ʔǎn nǎj].
Nan Li eat up apple all COMP Saj Kham peel AN this
‘Nan Li ate all the apples that Saj Kham peeled.’ (Shan; Post-Head)
- Number of apples Saj Kham peeled: some number of apples
 - Apples Nan Li ate: all the apples peeled by Saj Kham
- (26) Nan Li cǐn pěn [(**màmǎ**) [ʔǎn Saj Kham pǐk (**màmǎ**) mǐmǒt] nǎj].
Nan Li eat up apple COMP Saj Kham peel apple all this
‘Nan Li ate apples that Saj Kham peeled all of.’ (Shan; Post-Head/IH) (Context: there are 12 apples)
- Number of apples Saj Kham peeled: 12
 - Apples Nan Li ate: some number of the peeled apples

6 Conclusion

- This data from Yǔn Shan does not fit previous analyses for IHRCs that
 - require a maximal interpretation (Shimoyama 1999; Grosu & Landman 2012; Erlewine & Gould 2016)
 - employ un-selective binding to explain IHRCs that are not subject to wh-island constraints (Watanabe 2004)
 - rely on strongly quantified heads to explain the availability of non-maximal IHRCs (Grosu 2012)
- Instead, I propose that a head raising analysis can account for the Shan data, as well as the Lakhota examples that do not have strongly quantified heads.
- Given that Yǔn Shan—among other languages, including Buli (Hiraiwa 2003) and Washo (Hanink 2016)—do not fit well with the typology of IHRCs, a reexamination of the typology seems warranted.

References

- ALDRIDGE, EDITH. 2004. Internally headed relative clauses in Austronesian languages. *Language and Linguistics* 5.99–129.
- BONNEAU, JOSÉ. 1990. Logical form and an analysis of the matching effect in free relatives. *McGill Working Papers in Linguistics* 6.137–166.
- COLE, PETER. 1987. The structure of internally headed relative clauses. *Natural Language & Linguistic Theory* 5.277–302.
- DAYAL, VENEETA. 1991. The syntax and semantics of correlatives. *Natural Language & Linguistic Theory* 9.637–686.
- DRYER, MATTHEW S., and MARTIN HASPELMATH (eds.) 2013. *WALS online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. Online: <http://wals.info/>.
- ERLEWINE, MICHAEL YOSHITAKA, and ISAAC GOULD. 2016. Unifying Japanese relative clauses: copy-chains and context-sensitivity. *Glossa* 1.1.
- GLICK, IRVING I., and SAO TERN MOENG. 1991. *Shan for English speakers*. Dunwoody Press.
- GROSU, ALEXANDER. 2000. The semantic diversity of internally-headed relative clauses. *Naturally*, 143–152.
- GROSU, ALEXANDER. 2002. Strange relatives at the interface of two millennia. *Glott International* 6.145–167.
- GROSU, ALEXANDER. 2012. Towards a more articulated typology of internally headed relative constructions: The semantics connection. *Language and Linguistics Compass* 6.447–476.
- GROSU, ALEXANDER, and FRED LANDMAN. 1998. Strange relatives of the third kind. *Natural Language Semantics* 6.125–170.
- GROSU, ALEXANDER, and FRED LANDMAN. 2012. A quantificational disclosure approach to Japanese and Korean internally headed relatives. *Journal of East Asian Linguistics* 21.159–196.
- HANINK, EMILY. 2016. Internally headed relatives and event nominalizations in washo. *Proceedings of bls*, vol. 42, 119–134.
- HASTINGS, RACHEL ELIZABETH. 2004. *The syntax and semantics of relativization and quantification: The case of Quechua*. Cornell University dissertation.
- HIRAIWA, KEN. 2003. Relativization in Buli. *Studies in Buli Grammar: Working Papers on Endangered and Less Familiar Languages* 4.45–84.
- HIRAIWA, KEN; GEORGE AKANLIG-PARE; SAMUEL ATINTONO; ADAMS BODOMO; KOMLAN ESSIZEWA; and FUSHEINI HUDU. 2017. A comparative syntax of internally-headed relative clauses in gur. *Glossa: a journal of general linguistics* 2.
- MOREV, LEV NIKOLAEVIC, and ALEKSEĬ ALEKSEEVICH MOSKALEV. 1979. The Lao language.
- PRASITHRATHSINT, AMARA, and NATCHANAN YAOWAPAT. 2009. A typology of relative clauses in mainland southeast asian languages. *Mon-Khmer Studies* 38.1–23.
- SHIMOYAMA, JUNKO. 1999. Internally headed relative clauses in Japanese and E-type anaphora. *Journal of East Asian Linguistics* 8.147–182.
- WAROTAMASIKKHADIT, UDOM. 1972. *Thai syntax: An outline*, vol. 68. Mouton De Gruyter.
- WATANABE, AKIRA. 2004. Parametrization of quantificational determiners and head-internal relatives. *Language and Linguistics* 5.59–97.
- WILLIAMSON, JANIS. 1987. An indefiniteness restriction for relative clauses in Lakhota. *The Representation of (In) definiteness*, 168–190.