

The expression of exhaustivity and scalarity in Burmese

Keely New & Michael Yoshitaka Erlewine
National University of Singapore

Colloquial Burmese *m̥a* appears to have an **exhaustive** and **scalar** use. *m̥a* also forms **wh-NPIs**.
John Okell’s 1969 grammar gives two entries for *m̥a*, translated as English ‘only’ and ‘even,’ with no description of their distribution.

Exhaustive *m̥a*

- (1) *m̥a* expresses exhaustivity:
Context: Did Aung drink water or beer?
Aung-ga ye-ko-*m̥a* θauʔ-kɛ-dɛ.
Aung-NOM water-ACC-MA drink-PAST-REAL
‘It’s WATER that Aung drank.’ # ‘...Aung (also) drank beer.’
- Negation is expressed through *m̥ə*- and a matching mood ending, *-bu*.
- (2) Exhaustive *m̥a* scopes over local negation with *m̥ə*...-*bu*:
Aung-ga ye/biya-ko-*m̥a* m̥ə-θauʔ-kɛ-bu.
Aung-NOM water/beer-ACC-MA NEG-drink-PAST-NEG
‘It is WATER/BEER that Aung didn’t drink.’
- (3) Non-local negation shows that exhaustive *m̥a* has cleft semantics:
[Aung-ga ye-ko-*m̥a* θauʔ-kɛ-dɛ/dar-lo] Su-ga m̥ə-pyɔ-kɛ-bu.
Aung-NOM water-ACC-MA drink-PAST-REAL/DAR-C Su-NOM NEG-say-PAST-REAL
‘Su didn’t say that it is WATER that Aung drank.’
The exhaustivity of *m̥a* is not-at-issue; *m̥a* is not an ‘only.’

Scalar *m̥a*

- m̥a* has a scalar use reflecting the relative likelihood of the prejacent:
- (4) Context: There were many drinks offered at the party and out of all the drinks, it is expected that Aung will drink water; it is less likely for Aung to drink beer.
Aung-ga ye/#biya-ko-*m̥a* m̥ə-θauʔ-kɛ-dar.
Aung-NOM water/beer-ACC-MA NEG-drink-PAST-DAR
≈ ‘Aung didn’t even drink WATER.’
- *m̥a* in (4) requires a relatively likely prejacent:
- Cf exhaustive *m̥a* (2), ok with both less and more likely alternatives.
- Scalar *m̥a* requires both local negation and the *-dar* ending.
- (4) differs from (2) only in the verbal mood ending: *-dar* in (4) but the default negative ending *-bu* in (2).
 - (3) without local negation is exhaustive, even with *-dar*.

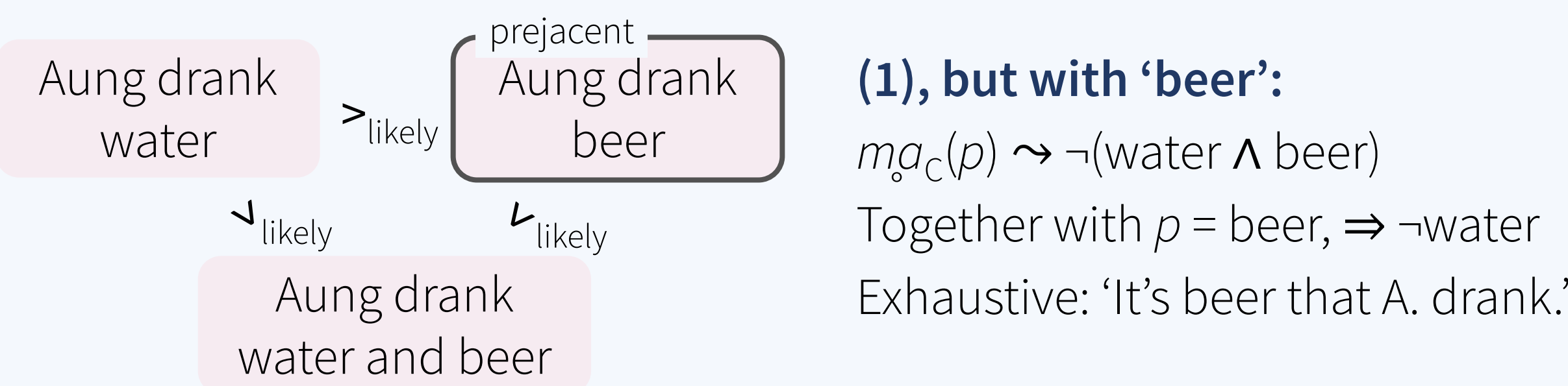
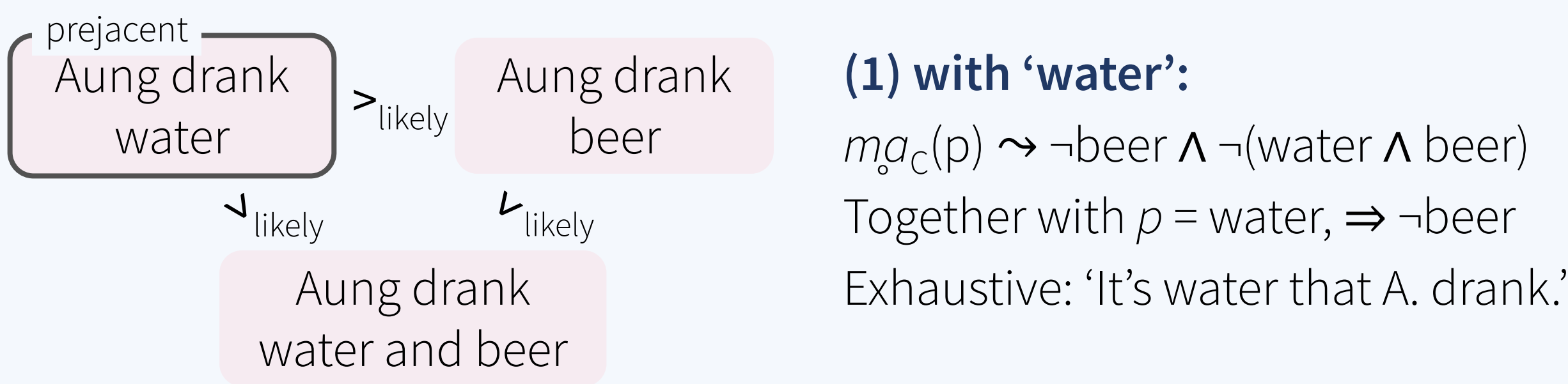
A unified semantics for *m̥a*: *m̥a* is a scalar exhaustive, presupposing that “All less likely alternatives are false”

m̥a takes propositional scope at LF and does not affect the at-issue content.

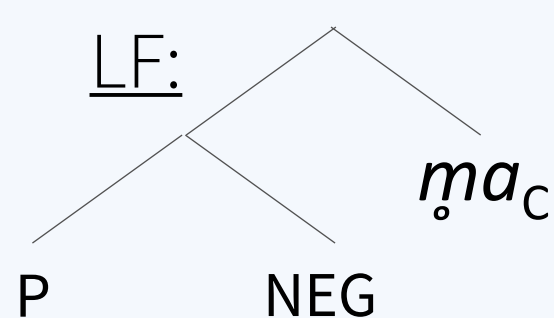
For prejacent *p* and alternatives C, including conjunctive alternatives, $m̥a_C(p)(w^*) \rightsquigarrow \forall q \in C [q \leq_{\text{likely}} p \rightarrow \neg q(w^*)]$

(≈ Velleman et al 2012’s semantics for English *it*-clefts; see also scalar *only*s as in Klinedinst 2005, Beaver & Clark 2008 and Coppock & Beaver 2014’s MAX, Roberts 2011)

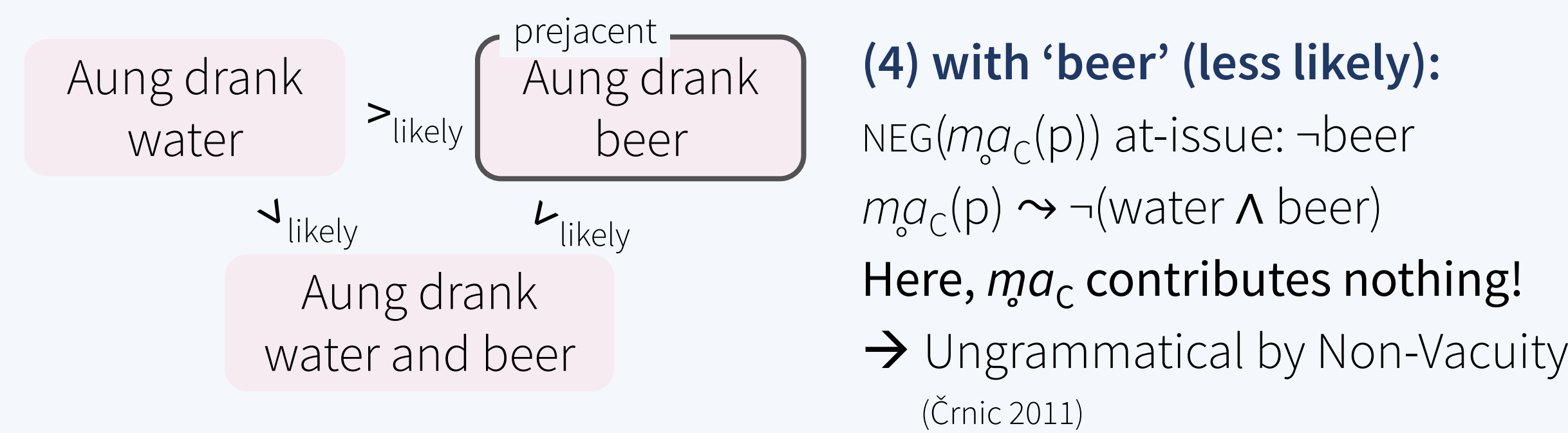
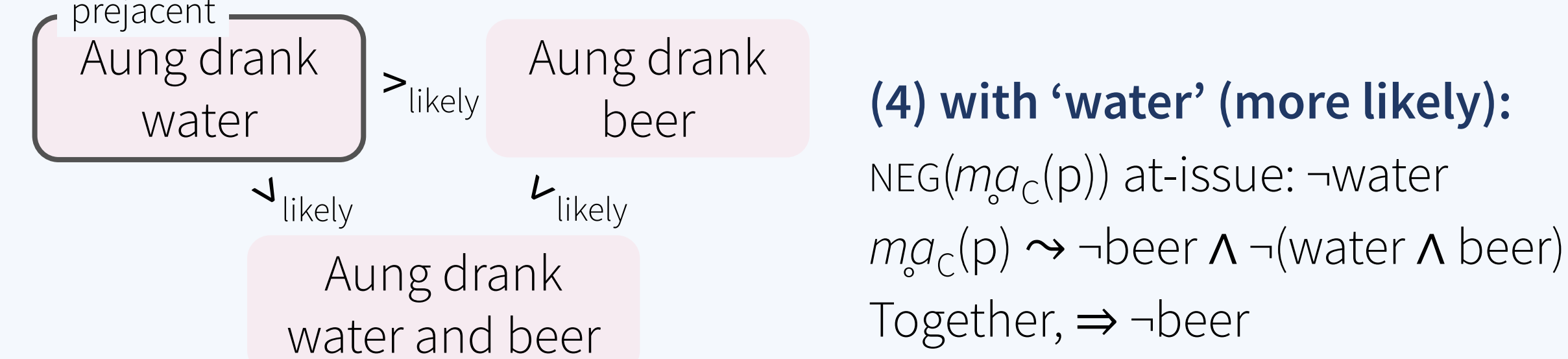
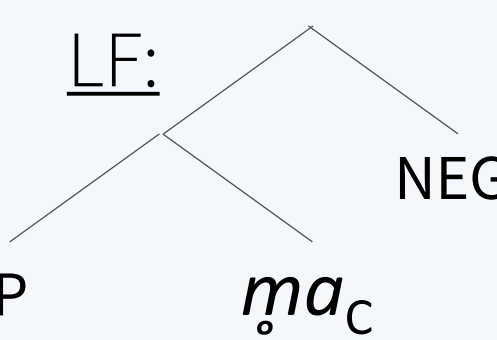
Wide scope *m̥a* yields exhaustive (cleft) semantics, regardless of the likelihood of the prejacent:



m̥a can take scope over local negation, giving (2):



m̥a taking scope under negation yields the scalar use:



→ Under negation, *m̥a* is only grammatical if there are less likely, false alternatives. Contexts that support *m̥a* under negation support *even* in English.

wh-*m̥a* NPIs

- (5) ṇa-ga bɛ-panθi-ko-*m̥a* m̥ə-yu-kɛ-bu / *yu-kɛ-dal.
1-NOM which-apple-ACC-MA NEG-take-PAST-NEG / take-PAST-REAL
‘I didn’t take any apple(s).’ / *‘I took any apple(s).’

Wh-*m̥a* NPIs require **local negation** and are not licensed in other downward-entailing environments (see handout).

Wh-phrases lack an ordinary semantic value (Ramchand 1996, Beck 2006). An existential \exists supplies an ordinary value.

- (6) TP = Aung which apple ate; suppose 1, 2, 3 are apples
a. $[\exists \text{ TP}]^f = [\text{TP}]^f = \{\text{that A ate 1, that A ate 2, that A ate 3}\}$
b. $[\exists \text{ TP}]^o = \text{that Aung ate some apple} = 1 \vee 2 \vee 3$

Note that “that Aung ate some apple” (6b) $>_{\text{likely}}$ each alt. in (6a).

- (7) Wh-*m̥a* without negation gives unsatisfiable presup.:
 $m̥a([\exists \text{ TP}]) \rightsquigarrow \neg 1 \wedge \neg 2 \wedge \neg 3$; contradicts at-issue $[\exists \text{ TP}]$ (6b)

- (8) Higher negation makes the presupposition satisfied:
 $[\text{NEG} [\exists \text{ TP}]]^o = \neg (1 \vee 2 \vee 3)$, compatible with $m̥a([\exists \text{ TP}])$

Sentence-final *-dar*

-dar clauses are **propositional clefts**, similar to Japanese *-no-da* (Kato 1998) or Mandarin *shì...de* (Andrew Simpson p.c.).

→ Sheil (2016) argues that **propositional clefts are utterances where a new “line of inquiry” is created**, e.g. an implicit sister/sub-question to the immediate QUD. (See handout on the distribution of *-dar*.)

- Scalar *m̥a* is felicitous in cases where the immediate QUD is a super-question (e.g. “What did Aung drink?” or “Did Aung drink anything?”) or a sister question (e.g. “Did Aung drink beer?”). (4) answers a new “line of inquiry” (“Did Aung drink water?”), therefore *-dar* is used.
- Exhaustive *m̥a* (a cleft) resolves an existing QUD (Velleman et al 2012), therefore *-dar* is ungrammatical.

Selected references: Črnič, Luka. 2011. *Getting even*. MIT dissertation • Okell, John. 1969. *A reference grammar of Colloquial Burmese* • Sheil, Christine M. 2016. *Scottish Gaelic clefts: Syntax, semantics, and pragmatics*. UC Berkeley dissertation • Velleman, Leah, David Ian Beaver, Emilie Destruel, Dylan Bumford, Edgar Onea, and Liz Coppock. 2012. *It*-clefts are IT (inquiry terminating) constructions. *SALT* 22