Quantifying over alternatives with Toba Batak *manang*[1]

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Today

I describe the distribution and function of *manang* in Toba Batak:[2]

(1) *manang wh*: **NPI or free choice item (FCI)**

    a. Si Poltak mang-allang [**manang aha**].
       PN Poltak ACT-eat   MANANG what

      'Poltak eats anything (at all).'

    b. Si Poltak dang mang-allang [**manang aha**].
       PN Poltak NEG ACT-eat   MANANG what

      'Poltak doesn't eat anything.'

(2) **A *manang* B: disjunction**

    Man-uhor buku i   [**ho manang ahu**]
    ACT-buy book that 2sg MANANG 1sg

    a. Logical (boolean) disjunction: 'Either you or I bought the book.'

    b. Alternative question: 'Was it you or me that bought the book?'

(3) **A marker on embedded questions...?**

    Ahu naeng mam-boto [**manang** na ro   do si Poltak]
    1sg want ACT-know MANANG NA come FOC PN Poltak

    'I want to know [whether or not Poltak came].'

Today I will attempt (semi-successfully) to offer **a unified account** for *manang*, concentrating on the NPI/FCI (1) and disjunction (2) uses.

Why a unified account?

At first glance, the uses of *manang* in (1–3) might feel quite distinct. Could this be accidental homophony?

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[2] Abbreviations: ACT = active, PASS = passive; PN = proper name marker; POSS = possessive; PERF = perfective; FOC = focus enclitic; PROX, MED, DIST are deictics; NA = the particle *na*, see Erlewine (2016a).

☞ There is suggestive diachronic evidence that these might be the same item.

- The pioneering Dutch grammar of Toba Batak Van der Tuuk (1864/1971) has no mention of *manang* but describes **barang** with the same basic distribution:[3]

    §147 "*Barang* is also used before the interrogative so that the latter can function as an indefinite pronoun, in order to allude to things of which the speaker knows nothing..."

      (4) [**Barang** si aha lomo   roha-m]   baen   gowar
          BARANG PN what depend.on[5] heart-POSS.2sg do/make?? name
          ni anak-ta   i.
          GEN child-POSS.1pl MED

          'Give as a name to our child whatever is agreeable to you (it's all the same to us what name you give our child)'

    §163 "*Barang* is used as a disjunctive conjunction"

      (5) halak na tubu [anak-na   **barang** boru-na]   §150.3
          person NA be.born child-POSS.3sg BARANG girl-POSS.3sg

          'someone whose son or daughter has been born'

    §147 "In indirect questions, the auxiliary *barang* is placed before the interrogative. *Barang* means 'in order to know'..."

      (6) Badju-badju-kku   do na hu-pahusó   di   hamuna,
          clothes-RED-POSS.1sg FOC NA PASS.1sg-inquire?? from 2pl

          [**barang** ise na mam-buwat tijan paridijan-nami an]
          BARANG who NA take??   from bathe-POSS.1plex MED

          'It is my jacket after which I inquire among you people, in order to find out who it is who has taken it away from the place where we have been bathing.'

      (Though note that the use here in (6) is slightly different from that in (3).)

- *Manang* appears instead of *barang* in all work on Toba Batak written in English, the earliest of which is Nababan (1966). My speakers do not recognize *barang*.

- There does not appear to be any substantial, systematic sound changes between Van der Tuuk (1864/1971) and the modern language that would explain *barang* > *manang* through regular sound change.

(7) **Hypothesis:** *Barang* had these functions in the 19th century and (sometime, somehow) became *manang*.

Roadmap

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[3] These quotes are from the 1971 English translation.

[5] *lomo roha-POSS* is the most common translation for 'like.' *lomo* independent of *roha* 'heart' seems to mean 'depend on,' 'chosen by,' 'up to.'

1 *Manang + wh*

1.1 NPI

Manang wh is a NPI (1): (classically) a narrow scope existential in a DE context (Ladusaw, 1979). It is not a question word (though see §4).

- *Manang wh* does not have a wide scope existential reading (with speaker ignorance implicature):

(8) Si Poltak dang mang-allang manang aha
    PN Poltak NEG ACT-eat MANANG what

    (*alai dang hu-boto aha/nadia).
    but NEG PASS.1sg-know what/which

    'Poltak doesn't eat anything (*but I don't know what/which).'

- NPI can be licensed by a non-clausemate negation (9a).

- *Manang* must attach directly to a *wh*; it does not "pied-pipe" around a *wh*-containing phrase:

(9) a. Dang lomo roha-kku [buku na di-tuhor **manang ise**].
       NEG depend.on heart-POSS.1sg book NA PASS-buy MANANG who

       'I don't like [the book that anyone bought].'

    b. *Dang lomo roha-kku **manang** [buku na di-tuhor **ise**].
       NEG depend.on heart-POSS.1sg MANANG book NA PASS-buy who

- NPI is licensed in other DE contexts, e.g. antecedents of conditionals:

(10) Poltak developed an unfortunate disease...
     Olo[7] mate si Poltak, [molo di-allang manang aha (na marlasiak).]
     MODAL die PN Poltak if PASS-eat MANANG what NA spicy

     'Poltak will die if he eats anything (spicy).'

- NPI can be fronted to be right above the negation:

(11) [Manang aha (pe)] dang di-allang si Poltak.
     MANANG what EVEN NEG PASS-eat PN Poltak

     'Poltak doesn't eat anything.'

1.2 FCI

- *Manang wh* is a FCI in modal contexts. It is not a simple wide or narrow-scope indefinite (12b/13b).

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[7]*Olo* is some kind of universal modal. Speakers translate it as 'agree to...' but clearly there is no agent volition involved in (10).

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(12) Boi hu-allang manang aha.
     ABLE PASS.1sg-eat MANANG what

    a. ✓'I can eat anything.'
    b. *'I can eat (something).'
    c. *'I can eat something...
      (but I don't know what.)'

(13) Olo[7] hu-allang manang aha.
     MODAL PASS.1sg-eat MANANG what

    a. ✓'I will/agree to eat anything.'
    b. *'I will/agree to eat (smthng).'
    c. *'I will/agree to eat smthng...
      (but I don't know what.)'

Manang wh is different than a universal quantifier too, as we'll see...

- Auxiliary-less sentences have habitual and episodic interpretations (14). *Manang wh* is accepted in auxiliary-less sentences but forces the habitual.

(14) Hu-allang ambasang.
     PASS.1sg-eat kueni

    a. ✓I eat (habitual) kueni.
    b. ✓I ate/am eating kueni.

(15) Hu-allang manang aha.
     PASS.1sg-eat MANANG what

    a. ✓I eat (habitual) anything.
    b. *I ate/am eating anything.

We can account for this by assuming a covert modal in the habitual reading, quantifying over times/situations.

- FCI is ungrammatical in the perfective, cf the universal in (17):

(16) *Nunga hu-allang manang aha.
     PERF PASS.1sg-eat MANANG what
    Intended: ≈ 'I ate anything.'

(17) Nunga hu-allang sude.
     PERF PASS.1sg-eat all
    'I ate everything.'

- FCI can be licensed in non-modal contexts with the addition of a restrictive relative clause (so-called *subtrigging*: LeGrand, 1975; Dayal, 1995, 1998)

(18) Nunga hu-allang [manang aha na di-lompa si Uli].
     PERF PASS.1sg-eat MANANG what NA PASS-cook PN Uli

     'I ate anything that Uli cooked.'

- FCI is also possible in imperatives, where its meaning clearly contrasts with universal quantifiers (based on Giannakidou, 2001):

(19) a. Allang manang aha!
       eat MANANG what

     'Eat anything!'
     (Eat something—you can choose)

    b. Allang sude!
       eat all

     'Eat everything!' / 'Finish it!'
     ≠ (a)

- FCI can also be fronted:

(20) [Manang ise na ro] ingkon mangan.
     MANANG who NA come must eat

     '[Anyone that comes]/[whoever comes] must eat.'

4

2 *Manang* disjunction

- A simple sentence with *manang* disjunction can be an alternative question (a) or a declarative with boolean disjunction (b,c), taking scope under or over the modal *naeng*.

  (21) Si Uli naeng mang-allang [pinasa   manang honas]
    PN Uli want ACT-eat   pineapple MANANG jackfruit
    a. ✓'Does Uli want to eat pineapple or jackfruit?'
    b. ✓'Uli wants to eat pineapple or jackfruit (but she doesn't care which).'
    c. ✓'Uli wants to eat pineapple or jackfruit (but I don't know which/I won't tell you which).'

- This is true even in the presence of negation:

  (22) Si Poltak **dang** mang-allang [pinahan manang lombu]
    PN Poltak NEG ACT-eat   pork   MANANG beef
    a. ✓'Does Poltak not eat pork or beef?'
    b. ✓'Poltak doesn't eat pork or beef.' ⇒ no eat pork and no beef
    c. ✓'Poltak doesn't eat pork or beef (but I don't know which/I won't tell you which).'

☞ Note the question interpretation (21/22a) and wide scope existential with speaker ignorance implicature (21/22c) were not possible with *manang wh*.

3 Proposal

I present an account for the *manang wh* and *manang* disjunction and return to the embedded question use (3) in §4.

Idea 1: *Manang* is (maximally) a combination of two things:

- **J**: Collects (ordinary) disjuncts into a (alternative) set, closed under ∨;
- ∃: An (ordinary) existential quantifier over sets of alternatives.

Idea 2: The meaning of an utterance must be properly related to its alternative set.

3.1 Background

☞ I adopt the **two-dimensional semantics** for focus and interrogatives from Rooth (1985, 1992), cf Hamblin (1973). Each node α in the syntax has an ordinary semantic value $[\![\alpha]\!]^o$ and a set of alternatives $[\![\alpha]\!]^{alt}$. By default, $[\![\alpha]\!]^{alt} = \{[\![\alpha]\!]^o\}$.

(23) **Pointwise composition:**
  For α with daughters β and γ, $[\![\alpha]\!]^{alt} = \{b \circ g : b \in [\![\beta]\!]^{alt}, g \in [\![\gamma]\!]^{alt}\}$ where $\circ$ is the appropriate composition rule between β and γ (e.g. function application)

Wh-phrases introduce non-singleton sets of alternatives which can be quantified over (Ramchand, 1996; Kratzer and Shimoyama, 2002; Shimoyama, 2006; Erlewine and Kotek, 2016, a.o.).[8]

(24) ***Wh*-words have alternatives but no ordinary value:** (Beck, 2006, a.o.)
  a. $[\![aha\ \text{'what'}]\!]^o$ undefined
  b. $[\![aha\ \text{'what'}]\!]^{alt} = \{x : x \text{ inanimate}\}$

Using pointwise composition, an alternative-introducing expression such as an in-situ *wh* will lead to a set of proposition-denoting alternatives at the clausal level. These can be used for question interpretation (Beck, 2006; Kotek, 2014, a.o.).

3.2 The proposal-proposal

(25) **J with disjuncts $x_1 \ldots x_n$:**[9]
  a. $[\![J\ \{x_i\}]\!]^o$ undefined
  b. $[\![J\ \{x_i\}]\!]^{alt} = \bigcup [\![x_i]\!]^o$ closed under ∨

(27) **∃ with argument α:**[10]
  a. $[\![\exists\ \alpha]\!]^o = \bigvee [\![\alpha]\!]^{alt}$ [11]
  b. $[\![\exists\ \alpha]\!]^{alt} = [\![\alpha]\!]^{alt}$

(26)
  a. $[\![J\ \{A, B\}]\!]^o$ undefined
  b. $[\![J\ \{A, B\}]\!]^{alt} = \{A, B, A \vee B\}$

(28)
  a. $[\![\exists\ [J\ \{A, B\}]]\!]^o = A \vee B$
  b. $[\![\exists\ [J\ \{A, B\}]]\!]^{alt} = \{A, B, A \vee B\}$

(29) **A constraint on interpretation:**[12]
  To interpret root α:
  a. $[\![\alpha]\!]^o$ must be defined.
  b. $[\![\alpha]\!]^o \in [\![\alpha]\!]^{alt}$

(29b) is part of Rooth's (1992) **Focus Interpretation Principle**, the presupposition of ∼. Ensuring that each root have a Rooth ∼ for congruence with the discourse context (QUD congruence etc.) will naturally derive (29b).

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[8]Focus also introduces alternatives. (Don't ask me what happens if things are focused.)

[9]On the syntactic category *J*, see Den Dikken (2006). See also Mitrović and Sauerland (2014) for a semantics for (coordinate) J which differs from my semantics in (25).

J could take an arbitrary number of arguments—as in (25) here—or be binary.

See also Alonso-Ovalle (2006, 2008) for a similar but one-dimensional (Hamblin) treatment of disjunction as two operators, *or* (≈J) and ∃. In order to get the full range of data for Toba Batak *manang*, the Roothian ordinary vs alternative two-dimensional system is necessary. The closure of alternatives under disjunction yields the so-called *subdomain* alternatives of Chierchia (2013).

[10]Yes, the rules in (25) and (27) are syncategorematic. That's necessary for lexical items which access the alternative dimension.

[11]For α of type $\tau \neq t$, this can be defined as $\lambda P_{\langle \tau, t \rangle} . \exists x \in [\![\alpha]\!]^{alt}[P(x)]$. See also Appendix C of Alonso-Ovalle (2006).

[12]Actually, this might have to apply to other clausal nodes besides the entire utterance root.

3.3 *Manang* disjunction

☞ Disjunction *A manang B* can be the spellout of J {A, B} (26) or ∃[J {A, B}] (28).

- ∃+J (28) gets the boolean disjunction readings. (∃+J can QR for wide scope.)

  The Focus Interpretation Principle (29b) is satisfied by the output of ∃+J in (28) and therefore also by the entire sentence as in (2):

  (30) TP = *Manuhor buku i [ho manang(∃+J) ahu].*   (=2)
      a. $[\![TP]\!]^o = {}^\wedge$you bought a book or I bought a book
      b. $[\![TP]\!]^{alt} = \{{}^\wedge$you bought a book, ${}^\wedge$I bought a book,
                                   ${}^\wedge$you bought a book or I bought a book}
      c. $[\![TP]\!]^o \in [\![TP]\!]^{alt} \Rightarrow$ 😃 FIP (29b)

- J (26) will yield the alternative question reading:

  (31) TP = *Manuhor buku i [ho manang(J) ahu].*
      a. $[\![TP]\!]^o$ undefined
      b. $[\![TP]\!]^{alt} = \{{}^\wedge$you bought a book, ${}^\wedge$I bought a book,
                                   ${}^\wedge$you bought a book or I bought a book}

  But (31) does ***not*** satisfy interpretation constraint in (29). 😢

  ☞ This is resolved by the addition of **C_Q** (32):[13]

  (32) a. $[\![C_Q\ \alpha]\!]^o = [\![\alpha]\!]^{alt}$
      b. $[\![C_Q\ \alpha]\!]^o = \{[\![\alpha]\!]^{alt}\}$
      c. C_Q with complement α presupposes that $[\![\alpha]\!]^o$ is undefined. ←**NEW**[14]

  (33) CP = C_Q *manuhor buku i [ho manang(J) ahu].*
      a. $[\![C_Q\ TP]\!]^o = \{{}^\wedge$you bought a book, ${}^\wedge$I bought a book,
                                  ${}^\wedge$you bought a book or I bought a book}
      b. $[\![C_Q\ TP]\!]^{alt} = \{\{{}^\wedge$you bought a book, ${}^\wedge$I bought a book,
                                ${}^\wedge$you bought a book or I bought a book}}
      c. $[\![C_Q\ TP]\!]^o \in [\![C_Q\ TP]\!]^{alt} \Rightarrow$ 😃 FIP (29b)

  Ordinary values that are sets of propositions are interpreted as questions (Beck, 2006; Beck and Kim, 2006; Kotek, 2014, 2016, a.o.).

- English *or* is similarly ambiguous between (26) and (28). But this type of decomposition receives independent motivation from languages with different disjunctors for alternative questions and boolean disjunction: e.g. Mandarin *háishi* = J; *huò* = ∃+J (Erlewine, 2014).

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[13]This is Q in Beck (2006) and Beck and Kim (2006). We could also use Kotek's (2016) ALTSHIFT, which generalizes to multiple questions. It might not actually coincide with the complementizer.
[14]There is independent motivation for this. Ask me about it. I thank Hadas Kotek for discussion.

3.4 *Manang wh*

Recall that *wh*-phrases have alternatives corresponding to answers as their alternative sets, but have no ordinary value:

(24) a. $[\![aha\ \text{'what'}]\!]^o$ undefined
    b. $[\![aha\ \text{'what'}]\!]^{alt} = \{x : x\ \text{inanimate}\}$

☞ J requires arguments with defined ordinary semantic values (25). Therefore **J cannot take a *wh*-phrase**. MANANG in *manang wh* must be ∃ (27) alone!

(34) *manang(∃) aha*
    a. $[\![\exists\ aha]\!]^o = \lambda P_{e,t}\ .\ \exists x \in [\![aha]\!]^{alt}\ [P(x)] = \lambda P_{e,t}\ .\ \exists x[x\ \text{inanimate} \wedge P(x)]$
    b. $[\![\exists\ aha]\!]^{alt} = \{x : x\ \text{inanimate}\}$

- Now we have another problem. (34) does not satisfy the Focus Interpretation Principle 😢 and neither will sentences embedding (34).

☞ **Some focus-sensitive operator will be used!**

Focus-sensitive operators (e.g. ONLY, EVEN) have the function of "resetting" the alternative set so that the FIP is satisfied (Beck, 2006, a.o.).

Association with (covert) EVEN ⇒ NPI:

As argued by Heim (1984); Lee and Horn (1994); Lahiri (1998), **EVEN associating with an indefinite will become an NPI**. The scalar part of EVEN (35) associating with an indefinite will be unsatisfiable, *unless it's in a downward-entailing context*.

(35) EVEN(α) ⤳ $\forall \varphi \in [\![\alpha]\!]^{alt} \setminus [\![\alpha]\!]^o ([\![\alpha]\!]^o <_{likely} \varphi)$

(36) EVEN(Poltak eats *manang aha*)
    a. $[\![\text{Poltak eats } manang\ aha]\!]^{alt} = \left\{ \begin{array}{l} {}^\wedge\text{Poltak eats kueni,} \\ {}^\wedge\text{Poltak eats jackfruit,...} \end{array} \right\}$
    b. EVEN ⤳ $({}^\wedge$Poltak eats something$) <_{likely} ({}^\wedge$Poltak eats kueni) and
                $({}^\wedge$Poltak eats something$) <_{likely} ({}^\wedge$Poltak eats jackfruit) 😢

(37) EVEN(NEG(Poltak eats *manang aha*)).   (=1b)
    a. $[\![\text{NEG(Poltak eats } manang\ aha)]\!]^{alt} = \left\{ \begin{array}{l} {}^\wedge\text{NEG(Poltak eats kueni),} \\ {}^\wedge\text{NEG(Poltak eats jackfruit),...} \end{array} \right\}$
    b. EVEN ⤳ ${}^\wedge$NEG(Poltak eats something$) <_{likely} {}^\wedge$NEG(Poltak eats kueni) and
           ${}^\wedge$NEG(Poltak eats something$) <_{likely} {}^\wedge$NEG(Poltak eats jackfruit)
        ⟺ $({}^\wedge$Poltak eats something$) >_{likely} ({}^\wedge$Poltak eats kueni) and
           $({}^\wedge$Poltak eats something$) >_{likely} ({}^\wedge$Poltak eats jackfruit) 😃

Association with (covert) ONLY/EXH ⇒ FCI:

Fox (2007); Chierchia (2013, a.o.): Free choice items involve (recursive) association of an exclusive operator (EXH, ≈ ONLY). See these works for details.

Association with C_Q?

Another alternative-sensitive operator is C_Q (32), which applies to a sentence involving a plain *wh*-phrase and forms a question.

But with *manang*(∃) composing with the *wh*, the ordinary value of the clause will be defined. **C_Q cannot apply if the ordinary value is defined** (32c). This blocks the constituent question interpretation of *manang wh* constructions.

The locality of *manang*?

The semantic proposal here would straightforwardly allow for pied-piping of the form in (9b), contrary to fact. The locality of *manang* and the *wh*-word must be governed by syntactic constraints (cf Cable, 2007, 2010, on Q-particles).[15]

4 Embedded question *manang*

Percival (1981): "Interrogative clauses are a sub-class of nominal clauses [='a clause which can be replaced by a noun phrase'] introduced by the particle *manang*."

(38) **Hypothesis (wrong?):** *Manang* is an embedded question complementizer.

4.1 Polar questions

"In yes-no interrogative clauses the particle *na* commonly occurs after *manang*."

(39) Dang hu-boto   [_CP **manang** na údan do].   (Percival, 1981, p. 110)
      NEG PASS.1sg-know   MANANG NA rain FOC

  'I do not know whether it's raining.'

Manang na is common for embedded polar questions for my speakers too, but it's not obligatory.

(40) Ahu naeng mam-boto [_CP **manang** nantoari do ro   nasida].
      1sg want ACT-know   MANANG yesterday FOC come 3pl

  'I want to know [whether or not it's yesterday that they came].'

Ex (40) cannot be a declarative embedding because 'want to know' is a reliable question embedder. Without *manang*, the embedded clause can only be declarative:

(41) *Ahu naeng mam-boto [_CP ro   si Poltak].
      1sg want ACT-know   come PN Poltak

  Intended: 'I want to know [whether or not Poltak came].'

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[15]For what it's worth, Percival (1981) writes *manang wh* constructions as single words, as in *manangaha* 'anything/whatever' or *manangnadia* 'whichever.'

4.2 Alternative questions

Embedded alternative questions also can be introduced with *manang* or not.

(42) Si Uli mam-boto [_CP si Poltak [man-jaha manang modom]].
      PN Uli ACT-know   PN Poltak ACT-read MANANG sleep

  'Uli knows [whether Poltak is reading or sleeping].'

The *manang* disjunction can be fronted within the question with apparently no difference in meaning:

(43) a. Ahu naeng mam-boto [_CP **manang** hu-allang   [pinahan manang lombu]].
          1sg want ACT-know   MANANG PASS.1sg-eat pork   MANANG beef

      b. Ahu naeng mam-boto [_CP **manang** [pinahan manang lombu] hu-allang].
          1sg want ACT-know   MANANG pork   MANANG beef PASS.1sg-eat

  'I want to know [whether I ate pork or beef].'

4.3 *Wh*-questions

At first glance, *wh*-questions can also optionally take *manang*...

(44) Hu-boto [_CP (**manang**) ise (na) ro   nantoari].
      PASS.1sg   MANANG who NA come yesterday

  'I know who came yesterday.'

But there's something suspicious:

- *Wh*-movement is optional, even in embedded questions (Erlewine, 2016a,b).

- ...but *manang* at the clause edge requires *wh*-movement...

  (45) a. Ahu naeng mam-boto [_CP **manang** ise na ro].
            1sg want ACT-know   MANANG who NA come
        'I want to know who came.'

        b. *Ahu naeng mam-boto [_CP **manang** na ro   ise].
            1sg want ACT-know   MANANG NA come who

- ...or does it!? The grammaticality of (46) instead suggests that there's a tight locality requirement between *manang* and the embedded question's *wh*-word.

  (46) Hu-boto   [_CP nantoari ro   **manang ise**].
        PASS.1sg-know   yesterday came MANANG who
    'I know [who came yesterday].'

☞ This instead suggests that *manang* in (44–46) is perhaps **a (different) kind of manang wh construction**. This is perhaps the key to unifying the embedded question *manang* with the *manang* above (at a later date).

5 Conclusion

- I investigated the different functions of *manang* in Toba Batak:
    - *A manang B* disjunction
    - *manang wh* NPI and FCI
    - *manang* in embedded questions

- Historical evidence supports the idea that these reflect a single lexical item.

☞ **I proposed that *manang* spells out J, ∃, or ∃+J**

    - Constraints on the use and interpretation of J, ∃, and ∃+J are accounted for using a two-dimensional (Roothian) Alternative Semantics, deriving the disjunction and NPI/FCI uses.

- An "embedded question *manang*" was also described, which can hopefully be unified in the future.

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