# What sentences do

Act 5: Situating in the cross-linguistic landscape

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# **Taking stock**

### We started with a question:

"How do we get from a unified semantics/discourse effects for clause types to heterogeneous interpretations of sentence utterances?"

#### Our answer, so far:

- Relatively bare-bones meaning for declaratives and interrogatives
- Commitment-based model for context updates
- Some general, intuitive rules which guide interpretation of those updates in context
- (New, yesterday): Intonation can modify context updates to produce new interpretative effects
- Empirical coverage: a lot of declaratives and interrogatives, rising intonation (pretty good for 4 days!)

### The **n** in the room

Our theory is almost exclusively tailored to English 🚨 🚨



There is shockingly little work on the sentence type-discourse effect link outside English

You should calculate some implicatures about what I am suggesting you do

But, it may still be instructive to consider what typological facts we do know, and what that might tell us.

# A plausible picture

### Universal across languages:

- Declaratives and interrogatives (and imperatives?) as primitives
- Sentential denotations
- Mapping from sentential denotations to context updates (basic discourse effects)

### Can vary across languages:

- Discourse effects of a specific intonational tune
- Morphosyntax of clause typing
- What counts as being 'cooperative' (purely speculative, unexplored here)

# Universals in clause typing

# (Polar) interrogatives are marked

#### (1) Japanese

- a. Hanako-ga hon-o yonda. Hanako book read 'Hanako read a book.'
- b. Hanako-ga hon-o yonda ka? 'Did Hanako read a book?'

#### (2) **Eastern Ojibwe** (Valentine 2001: 975) (5)

- a. Mno-kwaabiigad it.cLASS-long.enough sabaabiins. string
  - 'The string is long enough.'
    Mno-kwaabiigad na sabaabiins.
- b. Mno-kwaabiigad na sabaabiins.'Is the string long enough?' (6)

#### (3) Estonian

- a. Liis luges raamatut.
  Liisi read book
  'Liis read a book.'

  b. Kas Liis luges raamatut?
- b. Kas Liis luges raamatut? 'Did Liisi read a book?'

#### Canadian French

(4)

- a. Anne a lu un livre.Anne has read a book'Anne read a book.'
- b. Anne a=tu lu un livre? 'Did Anne read a book?'

### **Chamorro** (Topping 1973: 155)

- a. Mediku gue'.doctor he'He is a doctor.'
- b. **Kao** mediku gue'. 'Is he a doctor?'

#### Finnish

- a. Liisi luki kirjaa.Liisi read book'Liisi read a book.'
- b. Luki=ko Liisi kirjaa?'Did Liisi read a book?'

### A tentative generalization

- \* Interrogatives seem to be at least as marked as declaratives cross-linguistically
  - Clearly more marked: additional particle in interrogatives compared to declaratives
  - Plausibly more marked: using a less frequent intonational tune/word order in interrogatives
  - Expected if semantic complexity/markedness correlates with morphosyntactic markedness

WALS (955 languages), only 4 languages have explicitly marked declaratives/unmarked interrogatives:

- Dinka (Nilotic; S. Sudan)
- Kabardian (NW Caucasian; Russia)
- Puquina (isolate; Bolivia)
- Zayse (Afro-Asiatic; Ethiopia)

The data sources for these claims were either inaccessible or had other issues (data from Puquina from a 1607 grammar)

### No difference at all?

Lone example: Chalcatongo Mixtec (Oto-Manguean; Mexico)

Macaulary (1996): 'Yes/No questions are identical in form to statements. That is, there is no marking of the interrogative status of such forms—by question particle, intonation, tone, or other method.'

- (7) xakú=ro laugh=2 'You're laughing/Are you laughing?' (Macaulay 1996: 126)
- (8) ñába?a=ró librú=ro have=2 book=2 'You have your book/Do you have your book?' (Macaulay 1996: 126)

### Do languages mark declaratives?

Gascon, a variety of Occitan (France), has been argued to require clause type markers in affirmative declaratives:

(9) \*(Que) parli gascon. DECL speak.1SG Gascon 'I speak Gascon'

However, this is also true of interrogatives, so it does not separate declaratives from interrogatives per se:

Why should obligatory declarative marking be rare?

# What is a 'basic' interrogative?

A second issue: what do we mean when we say *language X forms* polar questions by doing Y?

- The most common strategy?
- The one which generates the fewest bias inferences?

Estonian: several PQ formation strategies, bias profile not clear:

- (11) a. Kas ema on kodus?
  - Q mom is home.INESS
  - 'Is mom home?'
  - b. On ema kodus?
  - c. Ema on kodus↑?
  - d. Ema on kodus või?

 $(v\tilde{o}i = \text{`or'})$ 

# Rising declaratives in other languages

In some languages (173/955 in WALS), neutral polar questions formed with intonation alone, often final rises.

### (12) Hindi-Urdu

```
Anu=ne uma=ko kita:b di:↓
Anu=ERG Uma=ACC book gave
'Anu gave a/the book to Uma'
(With ↑: 'Did Anu give a/the book to Uma?')

(Bhatt & Dayal 2019: ex. 1)
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(Also Romanian, Italian, ...)

(12) with ↑ does not generate the same inferences as the corresponding English RD. What gives?

### **Locating the difference**

Where should we locate the difference between (e.g.) H-U and English?

- English polar interrogatives assumed to denote the set  $\{p, \neg p\}$
- Logical choice to encode interrogative clause typing in the same way as interrogative syntax
- Not an option in H-U interrogatives that lack a clear syntactic signature or obligatory particle
- What about the intonational tune?

**Recall**: We thought of intonational tunes as utterance modifiers

# A sketch of a possible account

In English, L\* H-H% tune contributes (something like) calling off speaker commitment

In a language with 'neutral' rising declaratives, L\* H-H% contributes calling off speaker commitment + adding the complement of the prejacent to the Table

- ❖ Falling declaratives: add {p} to the Table
- Neutral RDs: add  $\{p, \neg p\}$  to the Table
- Effectively: Neutral RDs are tuned into polar interrogatives

Consequence: the difference between languages is chalked up to the lexical semantics of the intonational tune

Preserve universal sentence denotations & idea that tunes modify context updates, but still allow for cross-linguistic variation

# **Expressing non-canonical meanings**

A consequence of this view is that languages like H-U might lack a dedicated form for expressing the same meaning as English RDs

❖ Is this a problem?

# It's not (necessarily) a problem

Languages already have variable toolkits for expressing noncanonical meanings.

Estonian *ega*, Dutch *toch*: counterexpectational particles, repurposed for RD-like meanings in declaratives.

- (13) **Ega** sul ratas ei ole?
  EGA you.ADESS bike NEG be.NEG
  'You don't happen to have a bike?'
  (Lit. 'You *ega* don't have a bike.')
- (14) Je hebt **toch** een fiets? you have тосн a bike 'You have a bike?' (I thought you didn't!)

**Upshot**: We shouldn't be afraid if some constructions exist in some languages but not others.

### The end

In this course we developed a rich framework for understanding the link between semantics and interpretation

- Light on semantic assumptions, heavy on pragmatic ones
- If our pragmatics are well-motivated, this is ideal: we derive interpretation from highly general communicative principles
- Also got us a fair bit of empirical coverage!
- But, these frameworks really need more cross-linguistic stress-testing

### The end, for real

### \*\*\*\*AD SPACE\*\*\*

Next week, the not-sequel: What Embedded Sentences Do

- Applying sentential semantics!
- Attitude verbs!
- Combinatorics!
- Clausal embedding!
- Why believe is a really bonkers word!

More generally: I'm happy to meet if you want to talk about these kinds of topics.

- I'm around next week too
- Come talk in person or send an email: t.d.h.roberts@uu.nl