

# On the plurality of verbs

## Attitudes of knowledge and belief

### Day 1: Introduction, class outlook, big questions

Natasha Korotkova (Utrecht)  
<https://natasha-korotkova.github.io/>

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- ▶ Attitudes: mental states of human/sentient beings (cognitive psychology, philosophy of mind, artificial intelligence, any field related to reasoning and rationality ...)
  - ▶ beliefs
  - ▶ desires
  - ▶ dispositions
  - ▶ intentions
  - ▶ perceptions
  - ▶ ...
- ▶ Attitude reports/ascriptions: language that describes mental states (linguistics, philosophy of language, natural language ontology ...)
  - ▶ *know*
  - ▶ *think*
  - ▶ *want*
  - ▶ *intend*
  - ▶ *hope*
  - ▶ ...
- ▶ There must be a connection between the two, but what is it and how to elucidate it?

► Attitude language: very pervasive

- (1)
- a. **hoped** (26,471 on COCA)  
The mayor said, however, that he **hoped** some bus service would be restored by Tuesday afternoon.
  - b. **thinks** (68,146 on COCA)  
Dinner for breakfast may trump breakfast for dinner. Though, my Francophile self, **thinks** a croissant and a café noir “c’est bon” is good!
  - c. **wanted** (322,478 on COCA)  
Happy fall everyone! I **wanted** to share some fun news about our pumas.
  - d. **conjectured** (296 on COCA)  
some theorists have conjectured that time travel is impossible

► Important differences in uses (Koev 2022; Simons 2007)

- (2) a. Describe someone's mental state [assertive]  
John is sure his husband is cheating on him, but it's pure paranoia.
- b. Put forth some content (with a qualification/hedge) [parenthetical]  
John thinks Jane might come to the party, so we need some gluten-free snacks.  
Jane might come to the party (John thinks), so we need some gluten-free snacks.

► Much phil/cogsci literature (esp. Theory of Mind): first type of use

► Multi-faceted lines of inquiry

- How do we study people's cognition and the language of thought?
- What does language reveal about the workings of our mind?
- How can we separate linguistic competence and non-linguistic cognitive abilities?
- When studying language, what is our object of study?

► Influential approach to semantics

- Words have meanings
- Meanings map onto extralinguistic reality
- Link between language and the world: concepts/mental representations (classic ref: Murphy 2002, beginner-friendly introductions:  
<https://oecs.mit.edu/pub/j39m4jos/>,  
<https://oecs.mit.edu/pub/x0sk7df7/>)

- ▶ More specifically
  - ▶ How do we identify the inventory of attitudes?
  - ▶ How does the language of attitudes inform our understanding of our mental lives?
- ▶ For example:
  - ▶ What, if anything, can we learn about intentions by studying words like *intend*, and to what extent is the meaning of *intend* determined by the fact that it (presumably) denotes intentions?

► An important, often overlooked caveat

*Language offers us a window into the mind, giving us access to the conceptual contents that natural language expressions somehow recruit. But windows can contain broken and opaque panes, obscuring the objects they frame. Understanding, and attending to the ways that language use and comprehension can distort the underlying thoughts our utterances express is required if our language-centric experimental methods are to elucidate how we represent the world. (Dudley and Vogel 2023:38)*

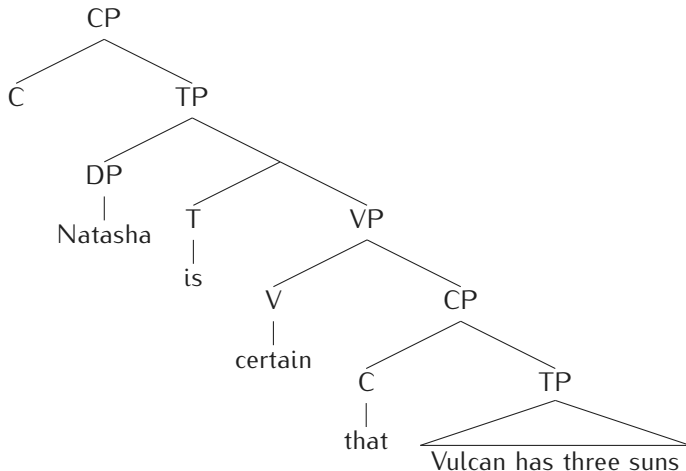
- ▶ Focus of this course
  - ▶ The linguistic side of things with an eye on conceptual architecture
  - ▶ Code name: “Lexical semantics for doxastic attitude predicates”
- ▶ Next stop: prior foundational work

- ▶ Development of generative syntax: a model of natural language syntax via a set of recursive rules (classic ref: Chomsky 1957; intro textbook, open-access: Barrie 2022)
- ▶ Advent of formal semantics: mathematically-precise models of natural language meaning using tools from logic (lecture on the history of the field by its founder Barbara Partee  
<https://www.youtube.com/watch?v=TpKpjiS1aic>; intro textbook, open-access: Coppock and Champollion 2023)
- ▶ Burgeoning research on the nature of meaning within philosophy of language

- ▶ Attitude predicates: single template
  - ▶ Subject: sentient entity, attitude holder (often the experiencer semantic role)
  - ▶ Object: clause (usually), content of the attitude (the theme semantic role)
- ▶ Simple life: uniform syntax, uniform semantics (spoiler alert: not)

## ► Sample syntax

(3) Natasha is certain that Vulcan has three suns.



- ▶ Semantics of attitudes: research on natural language modality and the suitability of tools from modal logic (Hintikka 1969 on attitude predicates, Kratzer 1977, 1981, 1991 on modals; stay tuned for Arregui et al.)
    - ▶ Attitude predicates: universal quantifiers over possible worlds lexically specified by the predicate
    - ▶ Modals like *might*, *must*, *can*: existential or universal quantifiers over possible worlds determined contextually
- (4)
- a. Let  $\text{DOX}_{x,w}$  be the set of worlds compatible with what  $x$  thinks at  $w$  (what they hold as true).
  - b.  $\llbracket \text{think} \rrbracket^w = \lambda p \lambda x. 1 \text{ iff } \forall w' \in \text{DOX}_{x,w} [ p(w') ]$ .
- (5)
- a. Let  $\text{BOUL}_{x,w}$  be the set of worlds compatible with what  $x$  desires at  $w$ .
  - b.  $\llbracket \text{want} \rrbracket^w = \lambda p \lambda x. 1 \text{ iff } \forall w' \in \text{BOUL}_{x,w} [ p(w') ]$ .

- ▶ Key takeaway: the semantics of attitude predicates is often parameterized using accessibility relation they lexicalize (parallel: classic work on modal auxiliaries that are taken to differ in force-flavor combinations, see e.g. Steinert-Threlkeld et al. 2023)

Similar to the split intensionality approach (Keshet 2008, 2010), more recent research argues that semantic action happens not (just) in the verb, but elsewhere, for example, in the C head/lower in the embedded clause (meaning in the complement approach; Kratzer 2006; Moulton 2009). Core Hintikka intuition remains intact: attitudes are intensional expressions, often understood as introducing manipulation over possible worlds (see especially discussion in Uegaki forth.).

- ▶ Caveat: speech reports (for an overview: “Speech reports” course materials <https://natasha-korotkova.github.io/teaching/ESSLLI2019/>)

- ▶ communicative predicates (*say*): easily expressed within a similar schema (see esp. Kaufmann and Kaufmann 2020)

- (6)
- a. Let  $\text{CONTENT}(x, w)$  be the propositional content associated with the source  $x$  in  $w$  (what was said, written, announced, etc).
  - b.  $\llbracket \text{say} \rrbracket^w = \lambda p. \lambda x. \forall w' \in \text{CONTENT}(x, w). [\phi(w')]$ .
- ▶ speech reports: may, but don't have to express a mental attitude
  - ▶ communicative predicates (usually with a heavy focus on *say*): special in many ways, from complements they take to subjects they allow
  - ▶ understudied: finer differences within communicative verbs, e.g., differences between *announce*, *assert*, *posit*, *report*, etc (see Grimshaw 2015 on useful dimensions within SAY-verbs and Korotkova and Anand 2025 on *claim*)

NB talk by Claudia Maienborn at the Polysemy Workshop; today at 2 pm

- ▶ Our semantics: modal displacement (arguably one of the key features of human language vs. animal communication systems)
- ▶ Key insight: many attitude predicates allow us to talk about reality-incongruent situations or to represent the mental states of others as different from our own (extremely important for cognitive development/Theory of mind, but our point here is more technical)
- ▶ Case in point: de re/de dicto ambiguities

► Hallmark of intensional environments

(7) Pranav thinks that unicorns are highly intelligent.

- a. DE DICTO: speaker not committed to there being unicorns, unicorns only exist in  $DOX_{Pranav,w}$   
 $\approx$  Pranav thinks that unicorns are highly intelligent, even though they don't exist.
- b. DE RE: speaker committed to there being unicorns, unicorns exists in the world of evaluation in addition to  $DOX_{Pranav,w}$   
 $\approx$  Pranav thinks that unicorns are highly intelligent, but I'd say we need to do more IQ tests.

► *De re*: a matter of scope? (Russell 1905)

- (8)
- a. 7a: Pranav thinks [ unicorns are highly intelligent ]
  - b. 7b: [ unicorns<sub>*i*</sub> Pranav thinks [ *t<sub>i</sub>* are highly intelligent ]

► Any version of scope theory is wrong, however

- ▶ *De re*: matter of identity, not scope (various Double Vision and Mistaken Identity scenarios, Quine 1956 and later work)
- (9) *Pascal and you watched Moonage Daydream together, Brett Morgen's documentary about David Bowie. However, he mistakenly thinks that he watched a mockumentary.*
  - a. Pascal believes/thinks that [the mockumentary about Bowie] won a Grammy award. [de dicto]
  - b. Pascal believes/thinks that [the documentary about Bowie] won a Grammy award. [de re]
- ▶ Not just speech and attitude verbs, so this is a useful test for modal environments at large (Korotkova forth., accepted)
- ▶ Proper analysis of *de re*: a mechanism for generating guises (Aloni 2001; Charlow and Sharvit 2014; Keshet 2010; Percus and Sauerland 2003)

- ▶ Much work on attitude predicates: big questions on the nature of meaning and ferreting out the proper formal analysis of attitudes at large, including types of objects they take as arguments (start here: <https://plato.stanford.edu/entries/prop-attitude-reports/>, a beginner-friendly book-sized intro: Grano 2021)
  - ▶ puzzles about reference
  - ▶ attitudes about the self
  - ▶ the problem of logical omniscience
  - ▶ introduction of hyperintensionality
  - ▶ ...

- ▶ Natural language: great propensity for attitudinal expressions
- ▶ Are accessibility relation necessary/sufficient to parameterize the differences between them?

Attitude ascriptions (semantics) aren't limited to attitude predicates (syntax): language has a host of other expressions with attitudinal semantics, including **evidentiality**, semantic category dealing with of information source (see overview in Korotkova forth.). But our primary focus—as the title hopefully suggests—will be on verbs.

# Finer distinctions

# Cutting the pie I

- ▶ Simple picture is wrong: attitudes verbs aren't created equal
  - ▶ syntactically (clauses they take, phenomena they license)
  - ▶ semantically (inference patterns, complement selection, modal force & flavor)
  - ▶ pragmatically (discourse status)
  - ▶ perhaps even conceptually/ontologically (NB: we can't simply rely on the underlying differences between e.g. beliefs vs desires, as many researchers treat desires as species of belief)
- ▶ What useful boxes/categories are there? How to identify them?

# Cutting the pie II

- ▶ Some well-trodden ground
  - ▶ syntax of clausal complementation & implicational hierarchies
  - ▶ mood selection
  - ▶ presupposition projection (Heim 1992)
  - ▶ factivity
  - ▶ question embedding
- ▶ More recent work
  - ▶ mode of composition with the complement
  - ▶ role of DP complementation
  - ▶ interaction with modality (Anand and Hacquard 2013)
  - ▶ gaps in the attitudinal domain (verbs that could exist but don't; the study of gaps generally useful)

# Clausal complementation I

## ► Clausal complements: many shapes (distinctions go beyond finiteness)

- (10)
- a. Pascal thinks [that Mordecai won the game]. [*that*-clause]
  - b. Pascal wants [Mordecai to be happy]. [*to*-infinitive]
  - c. Pascal saw [Mordecai dance on the table]. [bare infinitive]
  - d. Pascal considers [Mordecai happy]. [small clause]
  - e. Pascal remembers [winning the game]. [gerund]

## ► These complement types:

- different syntax, often associated with different “sizes”—availability of different layers of syntactic structure in the cartographic tradition (Wurmbrand 2024; Lohninger and Wurmbrand forth.)
- possibly different semantics (observations along those lines go back to at least Kiparsky and Kiparsky 1970, which can be seen as the origin of the meaning-in-the-complement approach)

# Clausal complementation II

- ▶ Different verbs: affinity with different complement types
- ▶ Some verbs: strict selectional requirements

(11) Pascal thinks ...

- a. ✓...that he won the game.
- b. \*...to win the game.

(12) Pascal wants ...

- a. \*...that he wins the game.
- b. ✓...to win the game.

- ▶ Some verbs: some flexibility (we will come back to those)

(13) Pascal remembers ...

- a. ✓...that he won the game.
- b. ✓...winning the game.

- ▶ A central divide: representational vs. preferential attitudes
  - ▶ REPRESENTATIONAL ATTITUDES: present content as true, includes doxastic predicates
  - ▶ PREFERENTIAL ATTITUDES: induce ranking on the space of possible options, includes bouletic predicates

*Think vs. want II*

- ▶ One manifestation: mood selection (overviews of the subjunctive: Quer 2017, 2021)
  - ▶ THINK-verbs: typically declarative
  - ▶ WANT-verbs: typically subjunctive

(14) Verbal morphology: Catalan (Romance; data from Quer 2021)

- a. Crec            que        hi    és/    \***sigui**.  
    believe.1SG   that       LOC be.IND/SBJV.3SG  
    'I think s/he's in.'
- b. Vull            que hi        **sigui**/    \***és**.  
    want.1SG   that LOC    be.SBJV/ IND.3SG  
    'I want him/her to be there.'



## Think vs. want III

(15) Complementizer system: Latvian *ka* vs. *lai* (Balto-Slavic; data from Dzene 2025)

- a. Anna ir droša, ✓ka/\*lai līst.  
 Anna.NOM be.3PRES certain.PTCP that rain.3PRES  
 'Anna is certain that it is raining.'
- b. Anna grib, ??ka/✓lai līst.  
 Anna.NOM want.3PRES that rain.3PRES  
 'Anna wants for it to rain.'

► Subjunctive licensing:

- matter of cross-linguistic and cross-constructional variation
- cannot be reduced to an ontological difference between predicate types

► Subjunctive semantics: non-trivial interaction with the semantics of the verb

# Think vs. want IV

- ▶ Further manifestations of this broad distinction
  - ▶ presupposition projection (Heim 1992)
  - ▶ language acquisition: children differentiate between *think* and *want* quite early and have a good grasp of *want* around 3yo (see discussion and overview in Hacquard and Lidz 2018)
- ▶ Ramifications for our semantics
  - ▶ THINK: represents an agent's view on reality (doxastic alternatives)
  - ▶ WANT: represents an agent's ranking of possibilities (active preferences)

# Inferences about truth

- ▶ Some verbs: reality-incongruent (handy term from Dudley and Vogel 2023)
- (16) Pranav **believes/guesses/suspects/thinks** that Vulcan has four suns, ✓but he is wrong, it has only three. [does not entail: Vulcan has four suns]
- ▶ Some verbs: reality-congruent (we'll come back to this on Day 2)
    - ▶ veridical: assert prejacent truth (entailed in the positive form)
    - ▶ factive: presuppose prejacent truth (entailed under negation)
- (17) a. Pranav **knows/discovered/found out/forgot** that Vulcan has three suns, #even though it has only two. [entails: Vulcan has three suns]
- b. Pranav **didn't know/discover/find out/forget** that Vulcan has three suns, #even though it has only two. [entails: Vulcan has three suns]
- (18) a. The study **confirmed/verified** that Vulcan has three suns, #though it only has two. [entails: Vulcan has three suns]
- b. The study **didn't confirm/verify** that Vulcan has three suns, ✓because it only has two. [does not entail: Vulcan has three suns]

# Question embedding

- **Some verbs: only declarative complements** (Theiler et al. 2019; Uegaki and Sudo 2019)

(19) Pranav believes/hopes ...

- a. ✓...that Vulcan has three suns. [decl]
- b. \*...which planet has three suns/whether Vulcan has three suns. [Q]

- **Some verbs (rogative): only interrogative complements**

(20) Pranav asks/wonders ...

- a. \*...that Vulcan has three suns. [decl]
- b. ✓...which planet has three suns/whether Vulcan has three suns.. [Q]

- **Some verbs (responsive): both declarative and interrogative complements** (Spector and Egré 2015; White and Rawlins 2018)

(21) Pranav discovered/decided ...

- a. ✓...that Vulcan has three suns. [decl]
- b. ✓...which planet has three suns/whether Vulcan has three suns. [Q]

# Where we are now

- ▶ Useful taxonomies:
  - ▶ broad classes based on structural properties
  - ▶ search for correlations: e.g., factivity and question-embedding
- ▶ Creation of large-scale databases
  - ▶ MECORE (Özyıldız et al. 2023) <https://datashare.ed.ac.uk/items/4e169245-78ce-4de2-8f8b-96a49a156384>
  - ▶ ZAS Database (Stiebels et al. 2024) <https://www.owid.de/plus/zasembed/>
- ▶ Cross-linguistic coverage (just a sample)
 

|                                 |                       |
|---------------------------------|-----------------------|
| Azeri (Turkic)                  | Navajo (Athabaskan)   |
| Barguzin Buryat (Mongolic)      | Nez Perce (Sahaptian) |
| Georgian (South Caucasian)      | Polish (Slavic)       |
| Koryak (Chukotko-Kamchatkan)    | Slovene (Slavic)      |
| Mandarin Chinese (Sino-Tibetan) | Turkish (Turkic)      |
- ▶ Shout-out: fieldwork semantics venues,
  - ▶ SULA <https://blogs.ubc.ca/sula/>
  - ▶ TripleA <https://semantics-triplea.org/>

# Where we could go

- ▶ Open questions
  - ▶ What is the conceptual structure of attitude ascriptions and the types of meanings that are lexicalized?
  - ▶ What are useful categories beyond the ones mentioned?
- ▶ Next step: inspiration from lexical semantics

# Lexical semantics (of verbs)

# Lexical semantics I

- ▶ **Common distinction** (for a case for integration  
[https://people.umass.edu/partee/Gen\\_Neg/\\_pages/description.shtml](https://people.umass.edu/partee/Gen_Neg/_pages/description.shtml))
  - ▶ **Compositional/logical semantics:** deals with the structural aspects of meaning
  - ▶ **Lexical semantics:** meaning of individual words and their relations
- ▶ **Key tenets** (intro text: Murphy 2010)
  - ▶ building blocks of natural language meaning
  - ▶ decomposition into semantic/cognitive primitives
  - ▶ interface with cognition (aspirationally)

## Lexical semantics II

- Early **generative semantics**: all natural language expressions can be represented using feature specifications (work by Katz, Fodor, Postal)

(22) Sample features

|              |                           |
|--------------|---------------------------|
| <i>woman</i> | [+FEMALE, +HUMAN, +ADULT] |
| <i>girl</i>  | [+FEMALE, +HUMAN, -ADULT] |
| <i>child</i> | [+HUMAN, -ADULT]          |
| <i>puppy</i> | [+CANINE, -ADULT]         |

- One modern incarnation: distributional semantics  
(<https://oecs.mit.edu/pub/gbaucew9/>, Baroni 2013; Boleda 2020)

## Lexical semantics III

- ▶ Classic topics
  - ▶ structure of the lexicon / ontology
  - ▶ senses and sense relations
  - ▶ polysemy
  - ▶ metaphor
  - ▶ ...
- ▶ Case in point: polysemy (example from Pustejovsky 1995)  
Can you think of illustrations? (yes, you)

- (23)
- a. FAST(1): moving quickly
  - b. FAST(2): performing some act quickly
  - c. FAST(3): doing something requiring a short space of time
  - d. FAST(4): involving rapid motion

## Verbal semantics I

## ► Prominent issues

- argument structure: mapping between grammatical function and semantic roles

(24) like/please, scare/fear, enjoy/delight

- argument realization & alternations
- lexical aspect: type of situation described by the verb
- causatives: internal/external causation

(25) bloom, blossom, corrode, decay, erode ...

- Natural classes: groups of verbs identified based on a cluster of shared properties (Levin 1993; Levin and Rappaport-Hovav 1995)

## Verbal semantics II

- One of the most famous case studies: verbs of hitting & breaking that emphasize different aspects of the same situation (Fillmore 1970 and much further work, including acquisition and cross-linguistic studies)

(26) Verbs of breaking (result): *bend, break, crack, fold, shatter*

- a. change-of-state (telic)  
I broke the window with a hammer; #it didn't faze the window, but the hammer shattered.
- b. say nothing about manner of damage, only result
- c. between one and three arguments, participate in the causative alternation (can be intransitive)  
The window broke.  
I broke the window/the hammer broke the window.

## Verbal semantics III

(27) Verbs of hitting (manner): *bump, hit, strike, stroke, tap*

- a. no change of state (atelic)  
I hit the window with a hammer; it didn't faze the window, but the hammer shattered.
- b. say nothing about result, describe surface contact
- c. two or three arguments, no causative alternation (always transitive)  
\*The window hit.

## Verbal semantics IV

Q Can we do that, but for attitude predicates?

- Potential future direction, not covered: distributional semantics

# Lexical semantics of attitude verbs

# Building blocks of attitudinal meaning

- ▶ Some existing work
  - ▶ Nature of the force/flavor restrictions (needn't be universal quantification)
  - ▶ Meaning alternations ( $\approx$  verbal polysemy)
  - ▶ Fine-grained differences between similar verbs (Dorst and Mandelkern 2023 on *guess*, Koev 2025 on *believe*)
  - ▶ Natural classes

## Natural classes I

- ▶ Memory predicates *remember, forget*, German *noch wissen*: research grounded in linguistic patterns as well as philosophy of memory (Liefke 2023; Rosina and Liefke 2025)
- ▶ Special types of interrogative-loving (rogative) predicates like *be curious, ponder, wonder* (Roberts 2021): encode a desire for transition from ignorance to knowledge (the inquisitive semantics “entertain modality”, Ciardelli et al. 2019)
- ▶ Our case study: intention verbs *intend, plan, try* (Grano 2017; Sharvit 2003; other deliberative environments behave similarly—rationale clauses, imperatives, anankastic conditionals, agentive adverbials)

## Natural classes II

## ► Distinguished profile

- preferences about the future, like bouletics
- consistency, unlike bouletics
- realism, like doxastics
- special presupposition projection pattern (Anand and Korotkova 2024)

## (28) CONSISTENCY

- a. She intends to move in with her girlfriend, #but also intends to keep living alone. (based on Condoravdi and Lauer 2016)
- b. She wants to move in with her girlfriend but also she wants to keep living alone.

## (29) REALISM

#I intend to grow wings and start flying.

- Formal analysis: we need to take into account some version of rationality/philosophy of action

# Meaning alternations I

- ▶ Direct perception/epistemic use alternation (Barwise 1981; Higginbotham 1983; Moulton 2009; Müller 2020)
    - ▶ bare infinitive: simple perception
    - ▶ full declarative clause: inferences about belief and truth
- (30)
- a. Toby saw/noticed/observed the Goblin King perform the magic dance, ✓but it was only a carefully crafted illusion.
  - b. Toby saw/noticed/observed that the Goblin King performed the magic dance, #but it was only a carefully crafted illusion.

# Meaning alternations II

- ▶ **Belief/intention alternation** (first observation for English: Jackendoff 1985, later discussed for a variety of languages, see e.g. Strauss 2026 on Basque)
  - ▶ full declarative clause: doxastic reading (but not all full clauses denote beliefs, e.g., speech verbs)
  - ▶ an infinitive: goal-oriented reading (but not all such clauses denote intentions either, e.g., under *want*)

- (31)
- a. Pascal decided that Mordecai was cheating.  
      $\approx$  Pascal came to believe that Mordecai was cheating.
  - b. Pascal decided to learn Ancient Greek.  
      $\approx$  Pascal came to intend to learn Ancient Greek.

# Meaning alternations III

- Factivity alternation: little industry investigating sources of inferences about truth (Bondarenko 2020, 2023; Özyıldız 2017)

- (32) Barguzin Buryat (Mongolic) *hanaxa*: factive with nominalizations, but not full clauses (data from Bondarenko 2020)

Context: The speaker is ignorant about the issue, but wants to report Sajana's opinion/memory. They say: "I don't know whether Badma broke the cart ..."

- a. # ...(xarin) Sajana [Badm-i:n tərgə əmdəl-ə:f-i:jə] han-a:  
(but) Sajana.NOM Badma-GEN cart break-PART-ACC think-PST  
# '...(but) Sajana remembered that Badma broke the cart.'
- b. ...(xarin) Sajana [Badma tərgə əmdəl-ə: gəžə] han-a:  
(but) Sajana.NOM Badma.NOM cart break-PST COMP think-PST  
'...(but) Sajana thought that Badma broke the cart.'

- (33) Nominalizations: not inherently factive

Sajana [Badm-i:n tərgə əmdəl-ə:f-tə-n'] ətig-ə:, xarin Badma tərgə  
Sajana Badma-GEN cart break-PART-DAT-3 believe-PST but Badma cart  
əmdəl-ə:-güi  
break-PST-NEG

'Sajana believed that Badma broke the cart (lit. 'in Badma's breaking the cart'), but Badma didn't break the cart.'

# Meaning alternations IV

- ▶ All such cases: tension between the core meaning of the verb, contribution of the clausal complement and additional factors
- ▶ Highly relevant to our core project of understanding meaning components (incl. argument structure) but still not quite addressing conceptual issues

# Course info

# Main aspiration

- ▶ Understand how insights from those diverse strands of research can be brought together to have a better picture of attitude predicates
- ▶ Empirical focus: doxastic predicates in English

Day 2 Factivity, knowledge, truth [opinionated overview]

Day 3 Coming-to-know verbs: a distinguished class [own work]  
lexical aspect, evidence, question embedding

Day 4 + 5 Refining *find*: the portrait of a verb [own work]  
how subjective *find* is not a specialized version of *think*  
The class of characterizing verbs (short)

Day 5 Q&A

- ▶ Course materials:  
<https://natasha-korotkova.github.io/teaching/ESSLLI2026/>
- ▶ Best way to reach me: email
- ▶ Discord channel: proceed at your own risk, good way to connect amongst yourselves

# Friends of attitudes I

- ▶ Workshop “Conceptual structure of attitudes” (w/ Salvador Mascarenhas, the 11am slot)
  - ▶ Our attempt to connect various strands of research on attitudes by bringing together researchers from across disciplines
  - ▶ Program: <https://natasha-korotkova.github.io/attitudes2026.html>
  - ▶ Esp. relevant for Day 2: talk by Jonathan Phillips today, August 10
- ▶ Of additional interest: workshop “Polysemy across categories” (Louise McNally & Peter Sutton, the 2pm slot)
  - ▶ Lexical semantics as a window on conceptual architecture (+ talk by yours truly, Friday, August 14)
  - ▶ <https://sites.google.com/view/pac2026/>



# Friends of attitudes II

- ▶ Course “Attitude adjustment: Trends in the semantics of clausal-embedding” (Deniz Özyıldız & Tom Roberts, the 2pm slot)



- ▶ Course “Experimental and theoretical investigations of affect in language and cognition” (Michelle Stankovic & Morgan Moyer, the 5pm slot)



## References I

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