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Evidential Moods in Attitude and Speech Reports (Slides).

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Evidential Moods in Attitude & Speech Reports

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Towards a combinatorics

- What are the building blocks for constructing attitude and speech reports?

- Wanted: a combinatorics of building blocks that predicts the typology of possible attitude and speech reports in natural languages.

The textbook analysis

Ralph believes that Ortcutt is a spy.

- Verbs like *believe* select propositional arguments as part of their meaning.

- Propositional arguments are provided by CPs.
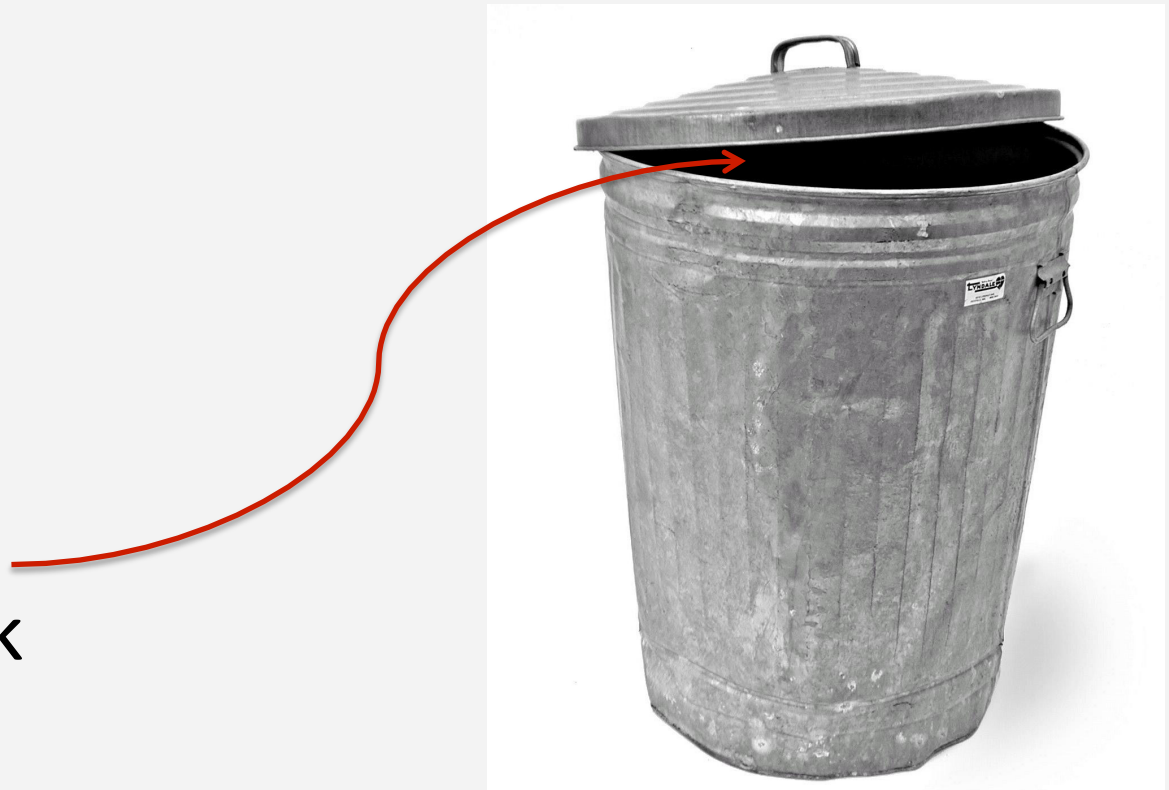
The textbook analysis

[[believe]] =
$\lambda p \lambda x \lambda w \forall w'$ $(Dox_x(w, w') \rightarrow p(w'))$

- Attitude verbs and verbs of speech are a species of modal operators.

What's ahead

The textbook analysis

Overlooked construction pieces

Moods, modals, and evidentials in the left periphery of the embedded clause.

The plan

- Some problems for the textbook analysis.
- *That*-clauses as nominal modifiers.
- *That*-clauses as verbal modifiers.
- The German reportative subjunctive as a probe into the syntax & semantics of sentential complementation.

Trouble For the Textbooks

The action is in the embedded clause

Forcing speech report interpretations

- The presence of a *that*-clause can force a speech report interpretation with unergative verbs.

- It must be possible for *that*-clauses to contain a source for speech interpretations.

Speech report

Ralph tobte, dass man ihn nicht

Ralph   raged   that   they him not

informiert habe.

informed   have.SUBJ.

Ralph raged that they hadn't informed him.

Speech report

Ralph seufzte, dass er betrogen worden

Ralph   sighed   that   he betrayed   been

sei.

was.SUBJ.

'Ralph sighed that he had been betrayed.'

Verbs of manner of speaking

- Babble, bark, bawl, bellow, bleat, boom, bray, burble, cackle, call, carol, chant, chatter, chirp, cluck, coo, croak, croon, crow, cry, drawl, drone, gabble, gibber, groan, growl, grumble, grunt, hiss, holler, howl …

- Complete list in Levin 1993.

Nominal modifiers

- *That*-clauses can appear with nouns where they don't fill argument positions.

- The idea, the myth, the story that Ortcutt is a spy baffles me.

- Stowell 1981, Grimshaw 1990, Moulton 2009.

Needed

An analysis of *that*-clauses that allows them

- to be verbal modifiers & contain the source for speech reports.
- to be nominal modifiers & contain the source for the modal semantics of the construction.

Harmonic embedded modals

The textbook analysis does not predict the two available readings with harmonic embedded modals.

Harmonic deontic modals

He

{motioned, proposed, insisted, suggested, recommended, advised, demanded, petitioned, urged, begged, requested, required, wanted, pleaded}

that we should set up an emergency fund.

Harmonic reportative modal

Die Legende sagt, dass er ein Spion
The legend   says   that   he   a   spy

gewesen sein soll.
been   be   said is.

'The legend says that he was a spy according to hearsay.'

Harmonic reportative modal

Ortcutt sagt, er will
Ortcutt   says   er   reportative modal

im   Kino   gewesen sein.
in+the   cinema been   be.

'Ortcutt says that he was at the movies according to what he himself reports.'

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Building Attitude and Speech Reports

That-clauses as nominal modifiers

Next step

Take the nominal modification configuration of *that*-clauses as a starting point and see how far it takes us.

Always nominal modifiers?

" … what we think of as sentential complements (or sentential subjects or topics) are best taken to be relative clause structures …"

- Kayne 2008.

Always nominal modifiers?

"Though further study is needed, languages offer puzzling examples

suggesting that certain instances of sentential complementation involve relativization."

Aboh 2010.

Historical development

Old High German *thaz* developed from a relative pronoun into a relativization particle.

Sentential complements developed from relative clauses modifying a dummy noun.

Axel-Tober 2009, 2012

Noun modification

- *That*-clauses can denote properties of things that have propositional content.

- Moulton 2009 UMass dissertation. Moulton 2015. Kratzer 2006.

Noun modification

the $_{NP}$[rumor $_{CP}$ [that Ortcutt is a spy]$_{CP}$]$_{NP}$

- The rumor such that Ortcutt is a spy in all worlds compatible with its content.

- Modalization comes from the *that*-clause.

Still noun modification

He believes $_{NP}$[thing $_{CP}$[that Ortcutt is a spy]$_{CP}$]$_{NP}$

- He believes something such that Ortcutt is a spy in all worlds compatible with it.

- Modalization comes from the *that*-clause.

Source of modalization?

Which element in the *that*-clause hosts the modal element that is responsible for the modal semantics of attitude and speech reports?

Suggested answer

- The highest layer of a clause can host a variety of modal elements: moods, harmonic modals, evidentials, covert modality in infinitives …

- A more differentiated left periphery. Rizzi 1997; Aboh 2004, 2006; Saito 2010.

Syntactic Regions

Mood

Left
periphery:

Davidsonian region:
below Aspect
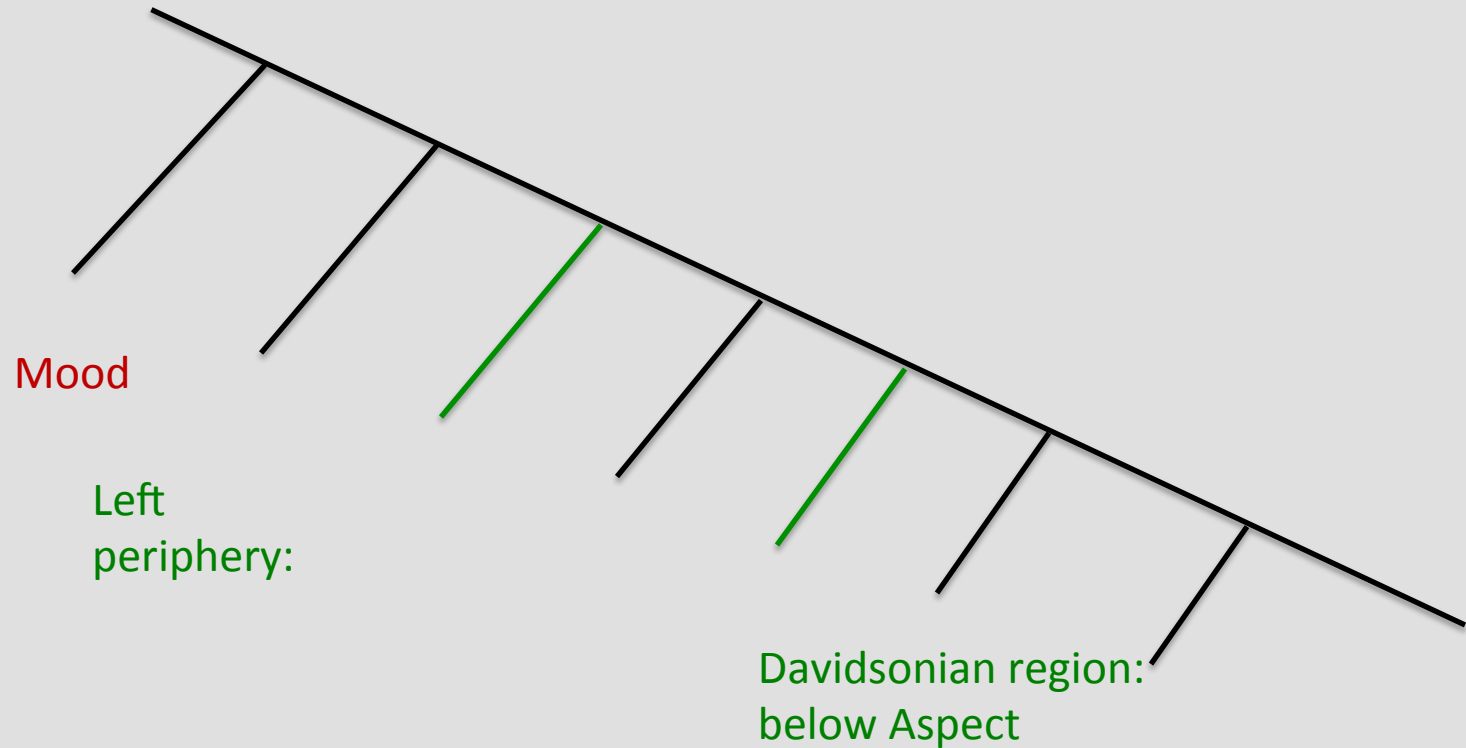
Schema for leftperipheral modality

- [[Mood]] =

$\lambda p \; \lambda x \; \forall w' \; (w' \in f(x) \rightarrow p(w'))$

Modal anchor

Free variable ranging over domain projection functions

Projecting modal domains

- Hacquard 2006 & later. Kratzer 2006.

- Modal domains are projected with fixed recipes from things and eventualities in the world of evaluation.

Content-related domain projection

- The rumor that Ortcutt is a spy

- $C_{ontent}(x)$ = the set of worlds that are compatible with the content of x. Undefined if x doesn't have intentional content.

- Defeasible normalcy assumptions.

Factual domain projection

- The fact that a Yeti walked by
- f_{act}(x) = the set of worlds that have a counterpart of x.
- Defeasible normalcy conditions.

Composition

[[$_{NP}$[rumor $_{CP}$[Mood [Ortcutt is a spy]]$_{CP}$]$_{NP}$]]

=

λx λw rumor(x)(w)

⊕

λx ∀w' (w' ∈ f(x) → spy(Ortcutt)(w'))

Composition

[[_{NP}[rumor _{CP}[Mood [Ortcutt is a spy]]_{CP}]_{NP}]]

=

λx λw (rumor(x)(w) & ∀w' (w' ∈ f (x) →
spy(Ortcutt)(w')))

Composition

[[believe $_{NP}$[thing $_{CP}$[Mood [Ortcutt is a spy]]$_{CP}$]$_{NP}$]]

=

λxλs believe(x)(s)

⊕

λxλw (thing(x)(w) & ∀w'(w' ∈ f (x) →

spy(Ortcutt)(w')))

Composition

[[believe $_{NP}$[thing $_{CP}$[Mood [Ortcutt is a spy]]$_{CP}$]$_{NP}$]]
=

$\lambda s \lambda w \; \exists x$ (believe(x)(s) & thing(x)(w) & s ≤ w & $\forall$w'(w' $\in f$ (x) → spy(Ortcutt)(w')))

- Restrict (Chung & Ladusaw 2001). The direct object position is restricted & existentially quantified.

Consequence

- The *that*-clause participates in saturating the direct argument position of *believe*.

- But: the *that*-clause does not provide a propositional argument.

- *That*-clauses relate to the nominal arguments of attitude verbs and verbs of speech.

Nominal arguments

- Believe rumors, myths, claims
- Tell me stories, phone numbers, interesting facts
- Explain facts
- Say something interesting

Accomplished

- An analysis where *that*-clauses are noun modifiers. ✓

- An analysis that locates the modal semantics of attitude ascriptions in the complement clause and thus accounts for harmonic embedded modals. ✓

Still to do

- An analysis that explains how *that*-clauses all by themselves can create speech reports.

Forcing Speech Report Interpretations

That-clauses as verbal modifiers

Embedded [say]

Proposal: The left periphery of a clause can contain a [say] head above Mood.

Syntactic Regions

[say]

Mood

Left
periphery:

Davidsonian region:
below Aspect
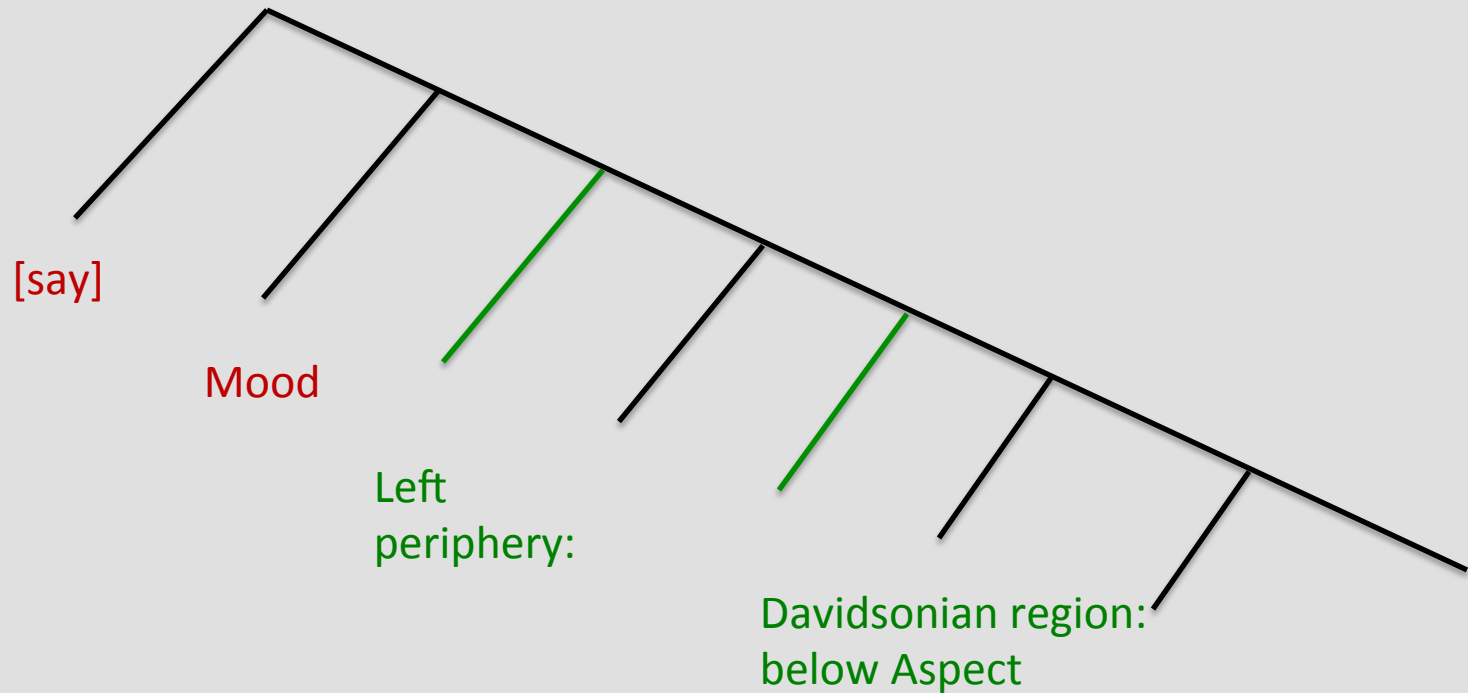
Building a speech report

Ralph sighed that Ortcutt was a spy.

[Ralph sighed [$_{CP}$ [say] [$_{MoodP}$that Ortcutt was …]]]

- [[[say]]] = λxλe say(x)(e)

  [[sigh]] = λe sigh(e)

- λxλe (say(x)(e) & sigh(e))

Building a speech report

[Ralph sighed [$_{CP}$ [say] [$_{MoodP}$that Ortcutt was ...]]]

$\lambda e \lambda w \, \exists x \, (say(x)(e) \, \& \, sigh(e) \, \& \, e \leq w \, \& \, thing(x)(w)$
$\& \, \forall w'(w' \in C_{ontent}(x) \rightarrow spy(Ortcutt)(w')))$

Coercion

- [say] coerces verbs into verbs of speaking.

- We predict variability in acceptability .

- For example, there is variation among Hebrew speakers as to whether they can have *that*-clauses with manner of speech verbs at all..

Indo-Aryan final complementizers

All derived from 'say'	Bayer 1999
Bengali	bole
Oriya	boli
Assamese	buli
Marathi	mhanun
Dakkhini-Hindi	bolke

Interim Summary

Two types of *that*-clauses

Nominal modifiers

As nominal modifiers (that is, without [say]) *that*-clauses

- Relate to the direct object positions of the embedding verb.

- are predicted to behave like DP-direct objects of those verbs.

Verbal modifiers

As verbal modifiers (that is, with [say]) *that*-clauses

- do not relate to an argument position of the embedding verb.

- are predicted to behave like adjuncts.

- always create speech reports in languages like German or English.

Plan

I will be using the German reportative subjunctive as a lens for testing the predictions of the proposed analysis of *that*-clauses.

Appetizer

The puzzle of the talking cat

A cat has a belief

(1)   Die Katze dachte, es sei   eine Maus

The cat   thought   it be.KONJ1 a   mouse

im   Loch.

in.the   hole.

The cat thought there was a mouse in the hole.

The cat is talking

(2) # Die Katze dachte, es sei   eine Maus
        The cat   thought   it   be.KONJ1 a   mouse

        im   Loch, die noch am Leben sei.
        in.the   hole   that still   alive   be.KONJ1

        The cat thought there was a mouse in the hole
        that was still alive (she said).

The cat is talking

(3)   #   Die Katze miaute.
          The cat   meowed.

          Es sei   eine Maus im   Loch.
          It   be.KONJ1 a   mouse in.the   hole.

          There was a mouse in the hole (she said).

No speech implied

(4)   Ralph träumte, er habe   einen Spion
       Ralph   dreamed he have.KONJ1 a   spy

       getroffen.
       met.

       Ralph dreamed that he had met a spy.

Ralph is talking

(5)   Ralph träumte, er habe   einen Spion

Ralph   dreamed he have.KONJ1 a   spy

getroffen, der Ortcutt geglichen

met   who Ortcutt   resembled

habe.

have.KONJ1

Prediction

Our analysis predicts that a non-speech interpretation for the German reportative subjunctive (Konjunktiv I) should only be available when the *that*-clause saturates the direct object position of the embedding verb.

Konjunktiv I

Making speech reports

Reportative moods in German

- (Mostly) in the written language: realized as Konjunktiv I.

- Realized as Konjunktiv II or indicative in more informal registers.

- Not discussed today: Distancing effect with Konjunktiv I; sequence of mood.

The right generalization?

The reportative subjunctive clause "is (in the same sentence or in the preceding context)

the object of a verb of saying (claiming, asking, commanding), or it is understood as if it were."

- Fabricius-Hansen & Sæbø (2004), 228.

Main clause

She called me first thing in the morning.

(1)   Sie   sei   in Columbus.
      She   be.KONJ1 in Columbus.
      'She was in Columbus, she said.'

- (1) presupposes a speech event. It describes the content of what was said.

Speech implied

(4)   Er war verzweifelt. Morgen   sei
He was desperate.   Tomorrow be.KONJ1

seine Gerichtsverhandlung und
his   trial   and

er hatte   noch keinen Anwalt.
he had.PAST.IND   still   no   lawyer.

Reasons

(7)   Er wurde verhaftet, weil   er
      He was   arrested because he

      gelacht habe.
      laughed have.KONJ1

      He was arrested because he allegedly laughed.

Relative clauses

(9)   Es gibt einen Arzt   in London,

It   is   a   doctor in London

der aus Wales sei.

who from Wales be.KONJ1

'There is a doctor in London who is said to be from Wales.'

A speech report

(11)　Ralph tobte, dass man ihn nicht
　　　Ralph　raged　that　they　him　not

　　　informiert habe.
　　　informed　have.SUBJ.

　　　'Ralph raged that they hadn't informed him.'

Semantics

Lexically determined content-related domain projection

Proposal

- The reportative subjunctive is a mood that is interpreted as a modal with lexically determined content-related domain projection.

- The speech interpretation is contributed by [say].

- The indicative is NOT restricted to content-related domain restriction.

Konjunktiv 1

- $[[Konj^1]] =$
  $\lambda p \, \lambda x \, \forall w' \, (w' \in C_{ontent} \, (x) \rightarrow p(w'))$

Modal anchor

Content-related domain projection

Coërcion

Ralph seufzte, dass Ortcutt ein Spion sei.

[Ralph sighed [$_{CP}$ [say] [Konj$_1$ Ortcutt was ...]]]

$\lambda e \lambda w \exists x$ (say(x)(e) & sigh(e) & e ≤ w & thing(x)(w) & $\forall$w'(w' $\in$ C_{ontent}(x) → spy(Ortcutt)(w')))

Flexible **F**activity

Creating speech reports

Expressing criticism

(13) Sie kritisierte, dass er zu spät
She criticized   that   he too late

gekommen sei.
come   be.KONJ1

She criticized that he had arrived late.

Disclosures

(14) Sie verriet,   dass sie verlobt
She disclosed that   she engaged

sei.

be.KONJ1

She disclosed that she was engaged.

Expressing regret

(15) Sie bedauerte, dass sie   zu laut   sei.
      She regretted   that she too loud be.KONJ1
      'She regretted that she was too loud.'

- Contrast: She regretted that.

Assessment

- When verbs like *criticize, disclose, regret* have DP objects, those objects refer to facts.

- Factive *that*-clauses saturate the direct object position.

- Non-factive *that*-clauses have [say] and relate to the unergative variant of the verb.

Leftward Movement

Out!

Leftward movement?

- Moulton 2009, 2013, 2015.
  Koster 1978, Alrenga 2005, Takahashi 2010.

- Topicalized clausal complements haven't moved to the positions where you see them.

- The corresponding argument positions are occupied by pronouns.

Leftward movement is out

(17) *Dass man ihn nicht informiert habe,
That they him not   informed have.SUBJ

tobte er.
raged   he.

'He raged that they hadn't informed him'.

Speech report lost

(18)   a. He explained that he had five children to feed.

   b. That he had five children to feed was never explained.

- The speech report interpretation doesn't survive leftward 'movement'. Only the factive interpretation does.

Expected

- There can't be left-dislocated clausal complements with verbs that do not take direct objects at all.

- There can't be left-dislocated complements with interpretations that can't be matched by a DP-direct object.

Extraction

Weak islands

Weak island

(19) Warum hat er geseufzt, dass Ortcutt
      why   has he sighed   that Ortcutt

ihn getroffen habe?
him met   have.KONJ1

Why did he sigh that Ortcutt met him?

Weak island

(20) Warum hat er kritisiert, dass Ortcutt
    why   has he sighed   that Ortcutt

ihn getroffen habe?
him met   have.KONJ1

Why did he criticize that Ortcutt met him?

Weak island

(21) Warum hat er bedauert, dass Ortcutt
    why   has he regretted that Ortcutt

ihn getroffen habe?
him met   have.KONJ1

Why did he regret that Ortcutt met him?

Extraction

No islands

Downstairs reading

(34)   Why did Ralph believe that Ortcutt hid the letter under a rock?

- Extraction is from an argument of the verb.

Downstairs reading

(35)   Why did Ralph believe that Ortcutt hid the
       letter under a rock?

- Also *hope*, *imagine*, *assume*, *suspect*, *claim*,
  deny, *fear*, etc.

Leftward Movement

In!

Leftward movement

(36)   Dass sich das ändern wird, hat niemand

That   REFL it   change   will has nobody

gedacht.

thought.

Nobody thought that that would change.

- The content interpretation of the *that*-clause survives leftward movement.

Leftward movement

(37) Dass sich das ändern wird, hat niemand
That   REFL it   change   will has nobody
gedacht.
thought.
Nobody thought that that would change.

- Also *imagine, assume, suspect, claim, deny, fear,* etc.

Time to conclude

Conclusion

- CPs are adverbial or nominal modifiers.

- The presence or absence of [say] determines what kind of modifiers they are.

- Embedded moods are crucial players in the construction of attitude & speech reports.

Conjecture

- Verbs never have propositional arguments.

Consequence

- A very different account of clausal selection.

- Consequences for current accounts of the acquisition of attitude ascriptions & speech reports?