On the demonstrative nature of finite complementizers

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1. Roadmap

- The use of *this* for direct speech and *that* for indirect speech is not random
- The proximal/distal distinction is recycled for direct/indirect evidentiality
- Indirect evidentiality (=*that*) is a way of involving the Addressee, hence 'far' from the Speaker
- Addressee involvement extends to other uses of complementizers and demonstratives
- This suggests a polysemous account of the demonstrative / complementizer *that* which can be extended to other uses, like relativizers

2. Introduction: direct & indirect speech

Direct speech is 'proximal'; indirect speech is 'distal':

(1) a. *Sue said (this/*that): "It is raining."*
     b. *Sue said (*this/that) it is raining.* (Rooryck 2019: 257)

This 'distance' is interpreted in two ways:

- **Actual distance**: the distance between the referent (the original utterance) and the deictic expression (the speech report) as multidimensional conceptual objects in a state space (Churchland 1986)
  - Dimensions: propositional content, lexical form, accent, accompanying gestures, …
  - Direct speech is proximal because it requires copying of lexical form and allows copying of accent, accompanying gestures, … (Clark & Gerrig 1990)
  - Indirect speech is distal because only propositional content needs to / can match
- **Addressee involvement**: the distance between the referent (the original utterance) and the Speaker
  - Direct speech is proximal because the Speaker has direct evidence for the utterance, which is not shared with the Addressee
  - Indirect speech is distal because both Speaker and Addressee have indirect evidence; the utterance is in the Common Ground, 'close' to the Addressee and 'far' from the Speaker
  - The Common Ground is not proximal for the Speaker, but the proximal/distal distinction is used to distinguish between the information content private to the Speaker (proximal) and that shared with the Addressee (distal)

3. Presupposition effects

Claim: overt distal complementizers ⇒ Addressee involvement ⇒ Common Ground.

3.1. Exclamatives

Many languages use finite complementizers for exclamatives:

(2)   a.   *That bio industry is still allowed!*

        b.   *Att   du   hann med tå-get!*
                COMP you did   with the-train
                '(It is surprising,) that you caught the train!'   (Swedish; Delsing 2010: 17 via Zevakhina 2013: 167)

        c.   *Że   też tyś potrafił coś   takiego zrobiç*
                COMP also you could   something such   do
                'That you could do something like this!'   (Polish; Storms 1966: 261)

Explanation: the propositional content of the exclamative is presupposed in the Common Ground (Zanuttini & Portner 2003), e.g. cannot be used to convince the Addressee:

(3)   *(*That) bio industry is still allowed, I'm telling you!*

Hence: *that* explicitly involves the Addressee, who has access to the Common Ground.

3.2. So-called 'optional' *that*

(4)   *Did you know (that) you had a flat?*   (Bolinger 1972: 59)

Bolinger (1972: 59):

- "*A* passes a slow-moving car driven by *B*, and calls out to him: *Did you know you had a flat?*
- "Alternatively, *A* passes *B*, notices the flat and says nothing, but *B* observes *A*'s curiosity and calls *What are you staring at? A*[1] replies, *Did you know that you had a flat?*"

In other words, without *that* the sentence can be uttered out of the blue. *That* suggests some context between Speaker and Addressee. Again, distal *that* involves the Addressee through the Common Ground.

3.3. The adverb-COMP construction in Romance

Romanian:

(5)   *Sigur (că)   va   veni*
        sure   COMP will.3SG come
        'Of course s/he's coming.'   (Romanian; Cruschina & Remberger 2017: 89)

Interpretive difference between the presence/absence of the complementizer:

- *Că* can only be used if the Addressee could have inferred the propositional content themselves
- The overt complementizer is thus conditioned by the existence of Common Ground

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[1] Bolinger has *B* instead of *A* here, but we take this to be a mistake.

Spanish:

(6) *Evidentemente (que)   Julia está muy enfadada*
obviously   COMP Julia is   very angry
'Obviously Julia is very angry.'   (Spanish; Etxepare 1997: 98–99 via Hernanz 2007: 165–166)

The use of *que* is conditioned by the existence of a previous utterance *Julia está muy enfadada*. This previous utterance establishes the proposition as the Question Under Discussion; (6) answers this QUD. *Que* is thus conditioned by the existence of a QUD in the Common Ground.

Neapolitan:

(7) a.   *Chillo$_i$ s'è   astutato ['o   riscaldamento]$_i$*
that.M self=is turned_off the.M.SG heating.M
'The heating has gone off.' ('It has gone off, the heating')
     b.   *Chello$_i$ s'è   astutato ['o   riscaldamento]$_j$*
that.N   self=is turned_off the.M.SG heating.M
'(The fact is/Because) the heating has gone off.'   (Neapolitan; Ledgeway 2011: 286)

With *chello*, there is no coreferentiality, and the context must contain "an implicit or explicit presupposition questioning why a particular event or state of affairs … has come about" (Ledgeway 2011: 287). In our analysis, the demonstrative has come to refer to that presupposition.

Spanish *que* and Romanian *că* are from Latin *quod*, a non-proximal interrogative; Neapolitan *chi/ello* from Latin *eccum ille*, a distal deictic. So here too, non-proximal elements are used to involve the Addressee via the Common Ground.

3.4. Generalisation

Exclamatives, Romance adverb-COMP constructions, and English 'optional' complementizers all use an **overt distal complementizer** to refer to the **Common Ground** which involves the **Addressee**. The complementizer is therefore **still demonstrative**, as it points to a presupposition.

[Side note: this argues in favour of a correlative origin of the complementizer *that* (*I say that, that he comes > I say that he comes*; cf. Axel-Tober 2017), as opposed to a cataphoric origin (*I say that: "he comes" > I say that he comes*): a cataphoric pronoun introduces new information, but a correlative establishes Common Ground.]

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4. Parallels with demonstratives

Definitions (Diessel 1999):

- Exophoric demonstratives: refer to entities in the speech situation:
  that book there (with a pointing gesture)
- Anaphoric demonstratives: refer to linguistic elements in the surrounding discourse:
  I borrowed [1984]$_i$, *but I have not read* [*that book*]$_i$ *yet*

4.1. Exophoric demonstratives

The standard view that *this*/*that* indicate physical proximity/distance is too simple. Demonstratives are chosen based on different factors (Peeters et al. 2021):
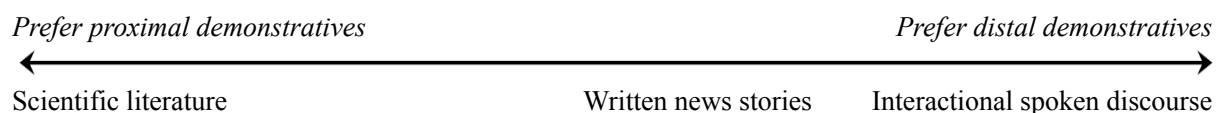
- Physical: distance, visibility, uphill/downhill, …
- Psychological: joint attention, cognitive accessibility, …

Actual distance is a physical factor and psychological factors are the recycling of Addressee involvement:

- **Actual distance**: the distance between the referent (the entity in the world) and the deictic expression (the demonstrative)
  - The demonstrative is accompanied by a pointing gesture
  - Both referent and demonstrative therefore have a place in the real world
  - Hence, the actual distance can be computed in terms of 'regular' distance
- **Addressee involvement**: the distance between the referent (the entity in the world) and the Speaker
  - Again, the distance from the Speaker is used to describe proximity to the Addressee
  - E.g., when the referent is in joint attention it is in the Common Ground, close to Addressee
  - Common Ground can also be used for empathy: *How's that throat?* (Lakoff 1974)

4.2. Anaphoric demonstratives

The intuitive idea that *this*/*that* are used depending on the textual distance between anaphor and antecedent cannot be confirmed experimentally (Çokal et al. 2014). The choice of demonstrative can be predicted more accurately based on text genre (Peeters et al. 2021; Maes et al. 2022):

Prefer proximal demonstratives   *Prefer distal demonstratives*

$\longleftarrow$ $\longrightarrow$

Scientific literature   Written news stories   Interactional spoken discourse

These genres differ with respect to the degree the Addressee is involved with the discourse:

- Interactional spoken discourse: Addressee provides continuous feedback; Speaker is relatively certain of the extent of the Common Ground
- Written news stories: are written on a relatively simple level; the writer assumes that the Addressee can follow along; writer can thus still assume a relatively large Common Ground
- Scientific literature: written to communicate new information that may require considerable cognitive effort on the part of the Addressee; the content is 'close' to the writer but not to the Addressee

In this way text genre is a proxy for Addressee involvement, which explains the preferences for proximal/distal elements.

5. Conclusion

Complementizers like *that* and *que* are **demonstrative** in the sense that they refer to a presupposition in the **Common Ground**.

	Information content (CP)	Entities (DP)
Exophoric	Direct / indirect speech (§2) Actual distance in a multidimensional conceptual world, interpreted as descriptive similarity Addressee involvement: interpreted as evidentiality; proximity is private witness evidentiality	Exophoric demonstratives (§4.1) Actual distance in the concrete physical world Addressee involvement: interpreted as psychological factors (psychological distance, joint attention, empathy, …)
Anaphoric	Presupposition (§3) Addressee involvement: *that* used over Ø to signal content in the Common Ground	Anaphoric demonstratives (§4.2) Addressee involvement: *that* used over *this* to interact and empathise with the Addressee

- The reference to **utterances** and **propositions** can be seen as the CP parallel to the reference to **entities in the speech situation** and **linguistic elements** on the DP level
  - Speech reports are exophoric references to information content
  - Presupposition is anaphoric reference to information content
- **Addressee involvement** can explain differences between *this* and *that* in all reference types, and also the alternation between *that* and zero in clausal complements
  - *This* cannot introduce clausal complements because it would introduce not-at-issue content
- **Actual distance** is relevant for exophoric reference only, as it requires the deictic expression and the referent to be of the same type
  - For exophoric demonstratives: pointing gesture and entity both have a physical location
  - For speech reports: original utterance and report both have a linguistic representation

5.1. Final thoughts: extending to relativizers and more

Relativizers fit in the lower right quadrant, but require a distal element for the same reason as *that*-clauses on the lef: a proximal element would imply that the head, which has already been mentioned, is private to the Speaker. The alternation between *that* and zero is thus based on whether there is something to refer to:

(8) a. *There was nothing unusual Ø caught your eye when you came in?*

(*Inspector Morse*, season 7, episode 1)

b. *Was there anything that/?Ø caught your eye while browsing through the racks?*

We expect that the *this*/*that* distinction in other types of reference can also be explained using **actual distance** and **Addressee involvement**. We thus prefer a **polysemy** account of *this* and *that*, contra the traditional grammaticalization-based homonymy account. Demonstratives acquire more uses, but do not lose their deictic function.

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