What do demonstratives tell us about strong definites?

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Two Types of Definites
Definiteness Across Domains
University of Potsdam
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Introduction

Definiteness as a class

Definiteness as an umbrella category

'uniquely referring use' (Strawson 1950): singular demonstrative pronouns (*this*, *that*), proper names (*Berlin*, *Sol*), singular personal and impersonal pronouns (*she*, *he*, *I*, *you*, *it*), and definite descriptions (*the talk*, *the linguist*)

definites, pronouns, demonstratives as a natural class defined by

- **(weak) familiarity** (Heim 1982; Roberts 2003)
- **definite-like structure** (Ebert et al. 2020; Elbourne 2005; Hinterwimmer 2015; Hinterwimmer and Bosch 2018; King 2001; Patel-Grosz and Grosz 2010; Postal 1966; Simonenko 2014, a.o.)

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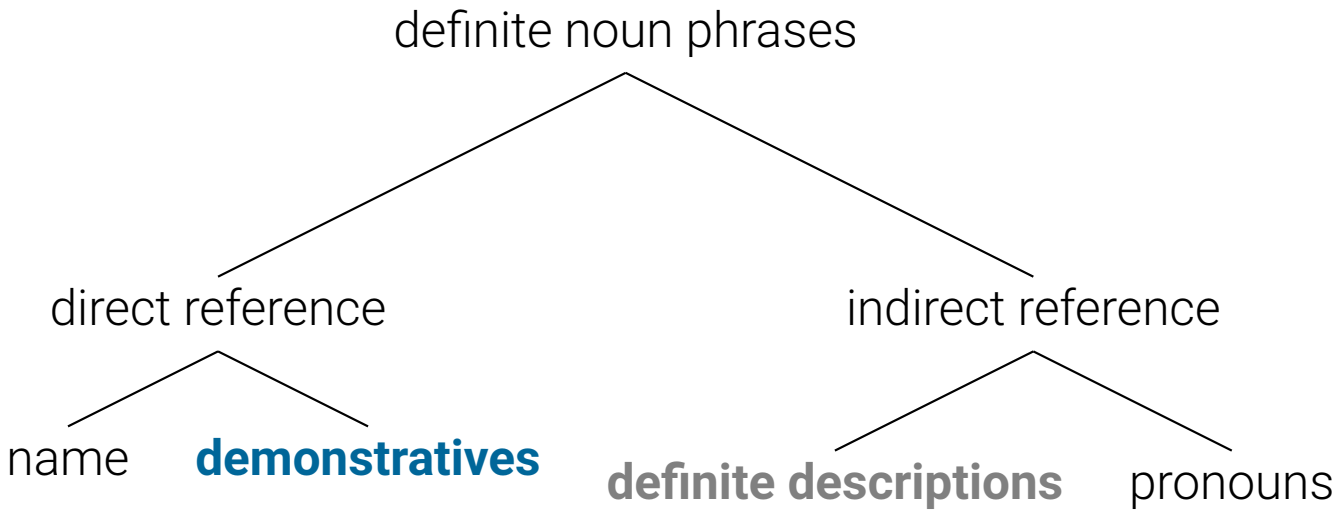
Today's goals: a) support this natural class;
b) propose a slightly different divide

Subcategories

[Kaplan 1969, 1989] (as summarized in Wolter 2006)



(1) If Jin and Sol switched places,

a. [that person]$_{\rightarrow \text{Jin}}$ would be Sol. false

b. [the person being pointed to]$_{\rightarrow \text{Jin}}$ would be Sol. true

Subcategories

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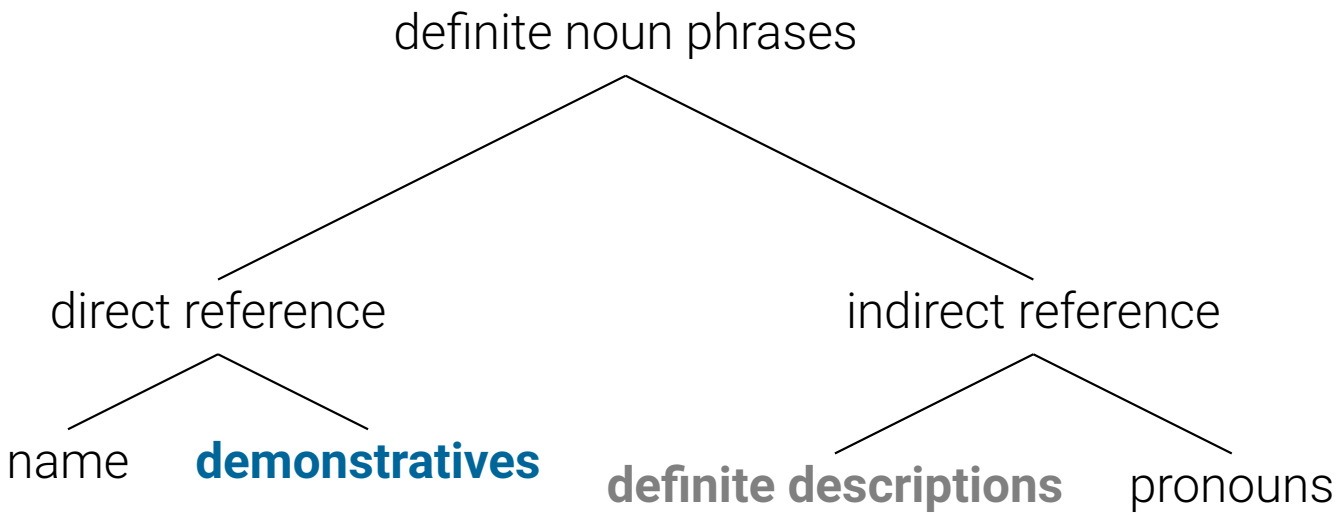
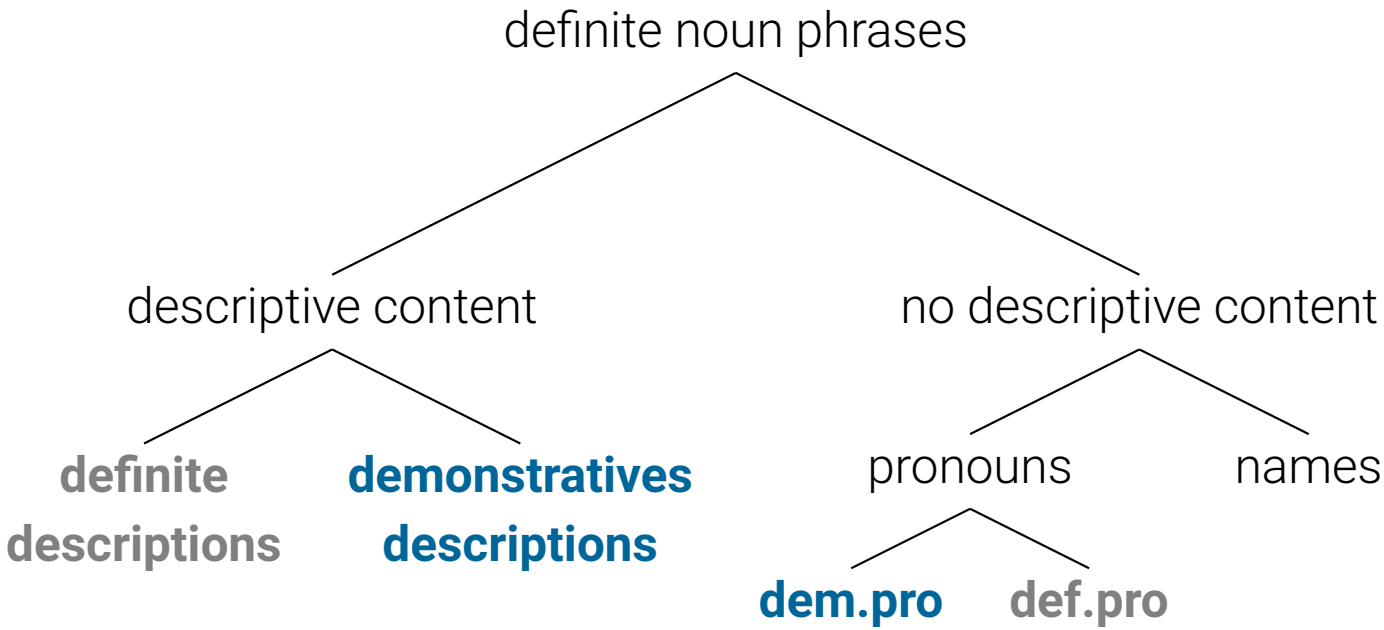


demonstratives ≠ definite descriptions

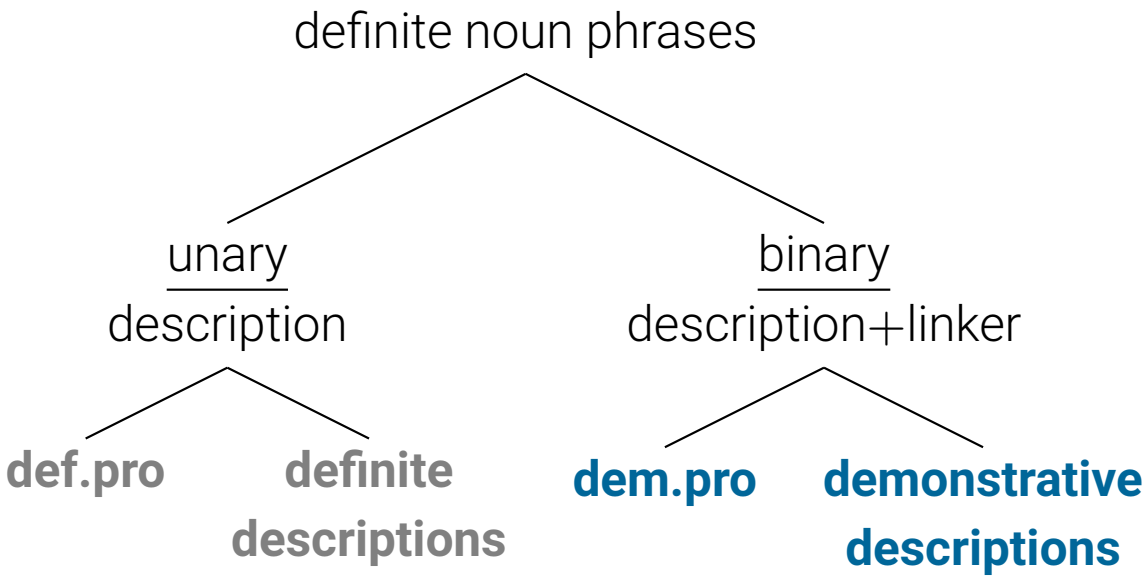
Subcategories

[Wolter 2006]

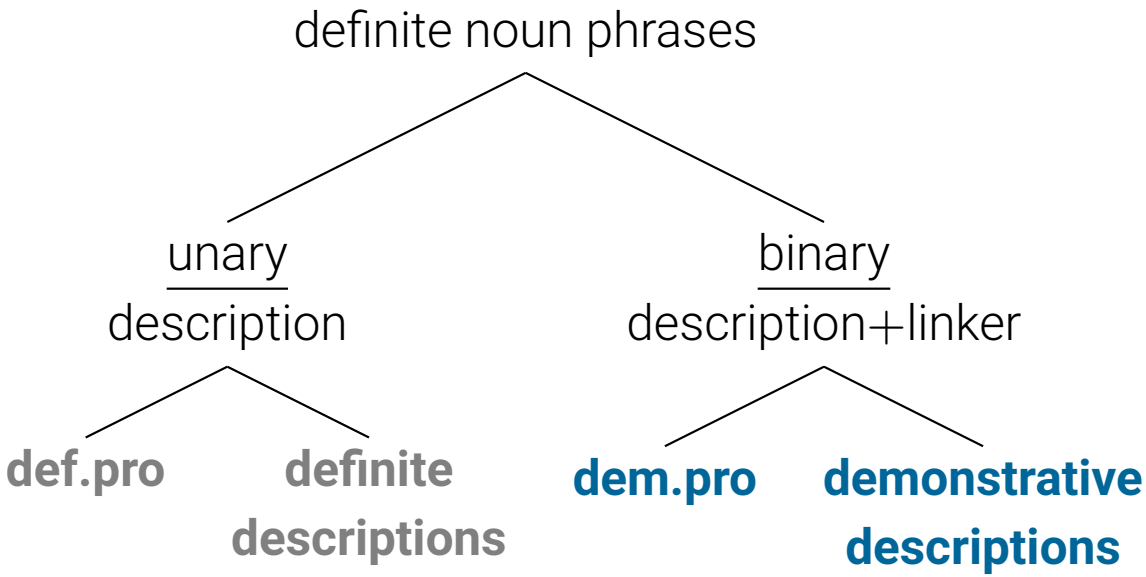


demonstrative descriptions ≈ definite descriptions

This talk


definite noun phrases
unary
description
binary
description+linker
def.pro
definite descriptions
dem.pro
demonstrative descriptions

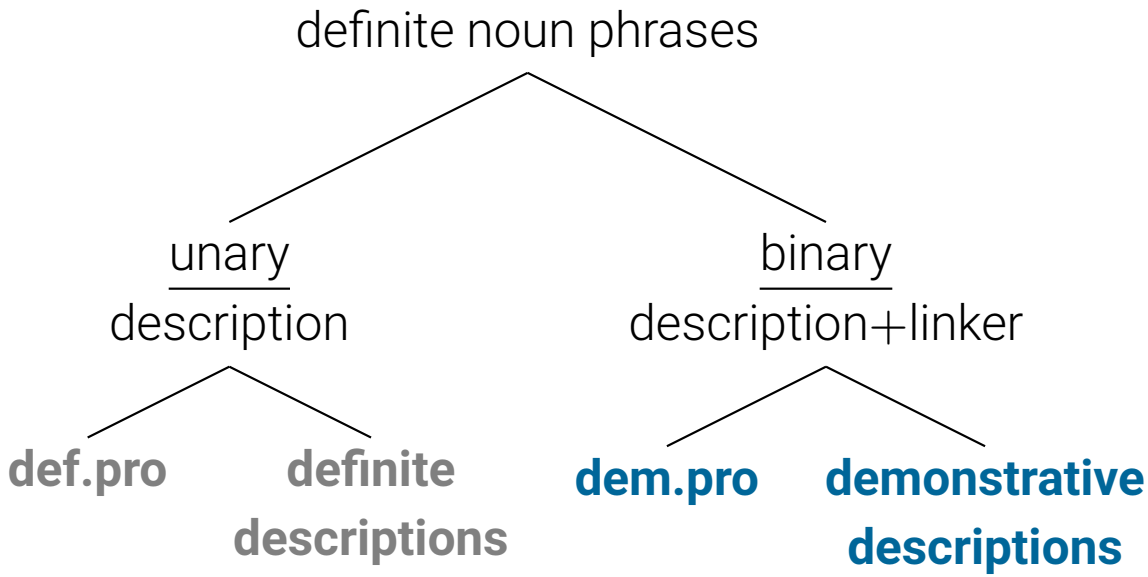
This talk



pronoun vs. description: restriction (description ≠ NP)

binary vs. unary: information types

This talk



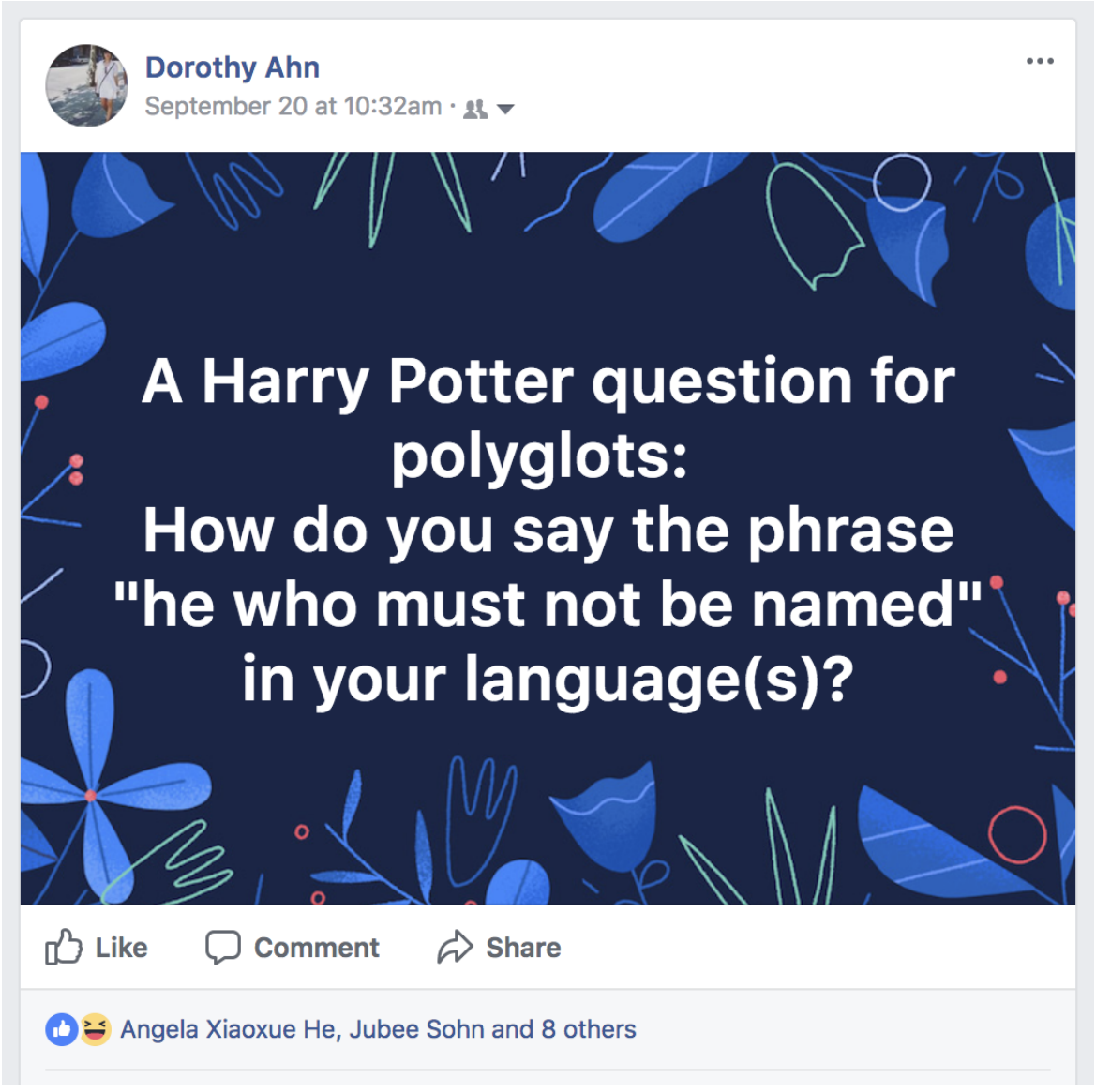
pronoun vs. description: restriction (description ≠ NP)
binary vs. unary: information types

unary vs. binary subsumes unique vs. familiar
Implications on the_{weak} vs. $\text{the}_{\text{strong}}$, bridging, etc.

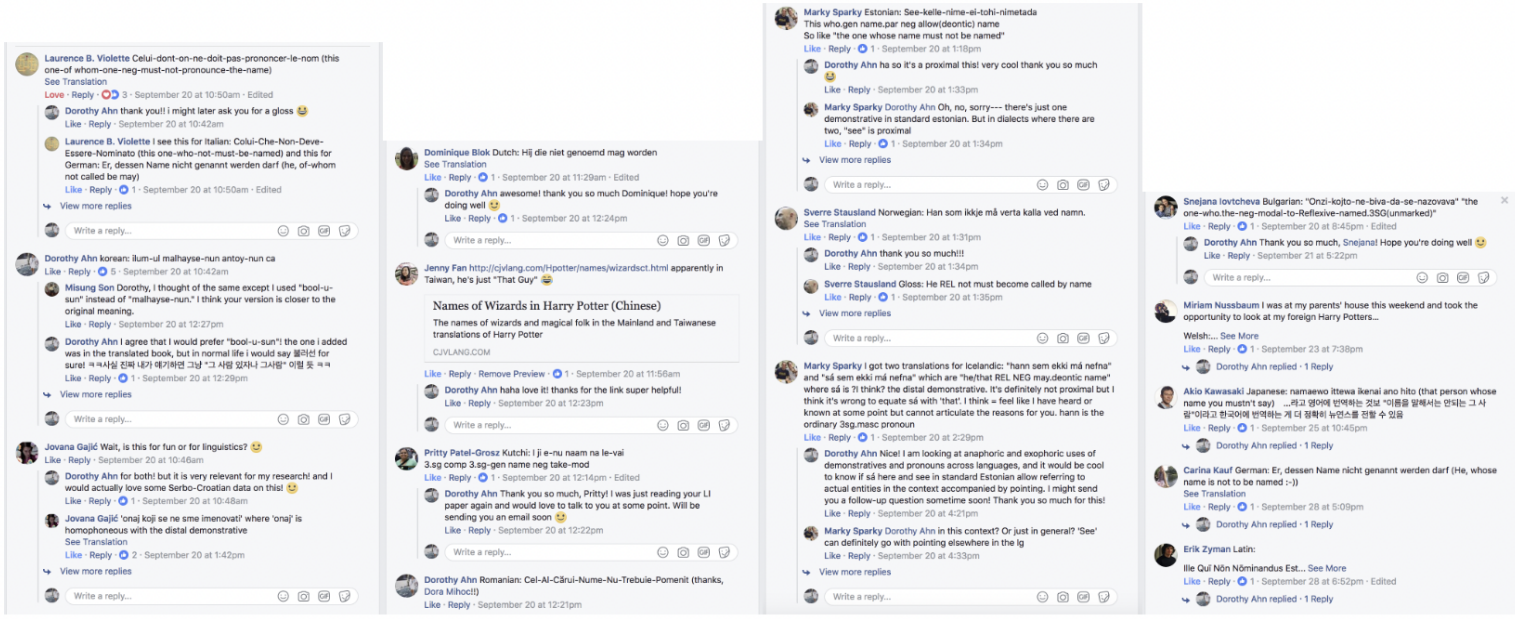
Outline

1. Reference & Demonstratives
    - general mechanisms in reference: depiction, description, index
    - primarily the function of demonstratives
2. Analysis of demonstratives and definites
    - definite as a ‘special’ demonstrative
    - content of the linker
3. Def_W vs. Def_S subsumed under unary vs. binary
    - implications and predictions
    - (bridging with demonstratives)
4. Conclusion

Reference & Demonstratives



[inspired by Zobel 2015]


Laurence B. Violette Celui-dont-on-ne-doit-pas-prononcer-le-nom (this one-of whom-one-neg-must-not-pronounce-the-name)
See Translation
Love · Reply · 3 · September 20 at 10:50am · Edited
Dorothy Ahn thank you!! i might later ask you for a gloss
Like · Reply · September 20 at 10:42am
Laurence B. Violette I see this for Italian: Colui-Che-Non-Deve-Essere-Nominato (this one-who-not-must-be-named) and this for German: Er, dessen Name nicht genannt werden darf (he, of-whom not called be may)
Like · Reply · 1 · September 20 at 10:50am · Edited
View more replies
Write a reply...
Dorothy Ahn korean: ilum-ul malhayse-nun antoy-nun ca
Like · Reply · 5 · September 20 at 10:42am
Misung Son Dorothy, I thought of the same except I used "bool-u-sun" instead of "malhayse-nun." I think your version is closer to the original meaning.
Like · Reply · September 20 at 12:27pm
Dorothy Ahn I agree that I would prefer "bool-u-sun"! the one i added was in the translated book, but in normal life i would say 불라선 for sure! ㅋㅋ사실 진짜 내가 얘기해준 그날 "그 사람 있지나 그사람" 이럴 듯 ㅋㅋ
Like · Reply · 1 · September 20 at 12:29pm
View more replies
Write a reply...
Jovana Gajić Wait, is this for fun or for linguistics?
Like · Reply · September 20 at 10:46am
Dorothy Ahn for both! but it is very relevant for my research! and I would actually love some Serbo-Croatian data on this!
Like · Reply · 1 · September 20 at 10:48am
Jovana Gajić 'onaj koji se ne sme imenovati' where 'onaj' is homophoneous with the distal demonstrative
See Translation
Like · Reply · 2 · September 20 at 1:42pm
View more replies
Write a reply...
Dominique Blok Dutch: Hij die niet genoemd mag worden
See Translation
Like · Reply · 1 · September 20 at 11:29am · Edited
Dorothy Ahn awesome! thank you so much Dominique! hope you're doing well
Like · Reply · 1 · September 20 at 12:24pm
Write a reply...
Jenny Fan http://cjvlang.com/Hpotter/names/wizardsct.html apparently in Taiwan, he's just "That Guy"
Names of Wizards in Harry Potter (Chinese)
The names of wizards and magical folk in the Mainland and Taiwanese translations of Harry Potter
CJVLANG.COM
Like · Reply · Remove Preview · 1 · September 20 at 11:56am
Dorothy Ahn haha love it! thanks for the link super helpful!
Like · Reply · September 20 at 12:23pm
Write a reply...
Pritty Patel-Grosz Kutchi: I ji e-nu naam na le-vai
3.sg comp 3.sg-gen name neg take-mod
Like · Reply · 1 · September 20 at 12:14pm · Edited
Dorothy Ahn Thank you so much, Pritty! I was just reading your LI paper again and would love to talk to you at some point. Will be sending you an email soon
Like · Reply · September 20 at 12:22pm
Write a reply...
Dorothy Ahn Romanian: Cel-Al-Cărui-Nume-Nu-Trebuie-Pomenit (thanks, Dora Mihoc!!)
Like · Reply · September 20 at 12:21pm
Marky Sparky Estonian: See-kelle-nime-ei-tohi-nimetada
This who.gen name.par neg allow(deontic) name
So like "the one whose name must not be named"
Like · Reply · 1 · September 20 at 1:18pm
Dorothy Ahn ha so it's a proximal this! very cool thank you so much
Like · Reply · September 20 at 1:33pm
Marky Sparky Dorothy Ahn Oh, no, sorry--- there's just one demonstrative in standard estonian. But in dialects where there are two, "see" is proximal
Like · Reply · 1 · September 20 at 1:34pm
View more replies
Write a reply...
Sverre Stausland Norwegian: Han som ikkje må verta kalla ved namn.
See Translation
Like · Reply · 1 · September 20 at 1:31pm
Dorothy Ahn thank you so much!!!
Like · Reply · September 20 at 1:34pm
Sverre Stausland Gloss: He REL not must become called by name
Like · Reply · 1 · September 20 at 1:35pm
View more replies
Write a reply...
Marky Sparky I got two translations for Icelandic: "hann sem ekki má nefna" and "sá sem ekki má nefna" which are "he/that REL NEG may.deontic name" where sá is ?I think? the distal demonstrative. It's definitely not proximal but I think it's wrong to equate sá with 'that'. I think = feel like I have heard or known at some point but cannot articulate the reasons for you. hann is the ordinary 3sg.masc pronoun
Like · Reply · 1 · September 20 at 2:29pm
Dorothy Ahn Nice! I am looking at anaphoric and exophoric uses of demonstratives and pronouns across languages, and it would be cool to know if sá here and see in standard Estonian allow referring to actual entities in the context accompanied by pointing. I might send you a follow-up question sometime soon! Thank you so much for this!
Like · Reply · September 20 at 4:21pm
Marky Sparky Dorothy Ahn in this context? Or just in general? 'See' can definitely go with pointing elsewhere in the lg
Like · Reply · September 20 at 4:33pm
View more replies
Write a reply...
Snejana Iovtcheva Bulgarian: "Onzi-kojto-ne-biva-da-se-nazovava" "the one-who.the-neg-modal-to-Reflexive-named.3SG(unmarked)"
Like · Reply · 1 · September 20 at 8:45pm · Edited
Dorothy Ahn Thank you so much, Snejana! Hope you're doing well
Like · Reply · September 21 at 5:22pm
Write a reply...
Miriam Nussbaum I was at my parents' house this weekend and took the opportunity to look at my foreign Harry Potters...
Welsh:... See More
Like · Reply · 1 · September 23 at 7:38pm
Dorothy Ahn replied · 1 Reply
Akio Kawasaki Japanese: namaewo ittewa ikenai ano hito (that person whose name you mustn't say) ...라고 영어에 번역하는 것보 "이름을 말해서는 안되는 그 사람"이라고 한국어에 번역하는 게 더 정확히 뉴언스를 전할 수 있음
Like · Reply · 1 · September 25 at 10:45pm
Dorothy Ahn replied · 1 Reply
Carina Kauf German: Er, dessen Name nicht genannt werden darf (He, whose name is not to be named :-))
See Translation
Like · Reply · 1 · September 28 at 5:09pm
Dorothy Ahn replied · 1 Reply
Erik Zyman Latin:
Ille Qui Nōn Nōminandus Est... See More
Like · Reply · 1 · September 28 at 6:52pm · Edited
Dorothy Ahn replied · 1 Reply

He-who-must-not-be-named

Using proximal/distal demonstrative

(2) **Colui**-Che-Non-Deve-Essere-Nominato
that.one-who-not-must-be-named
[Italian; Laurence B-Violette]

(3) **Celui**-dont-on-ne-doit-pas-prononcer-le-nom
this.one-of.whom-one-neg-must-not-pronounce-the-name
[French; Laurence B-Violette]

(4) **onaj** koji se ne sme imenovati
distal.one who not must name
[Serbo-Croatian; Jovana Gajic]

(5) **Cel**-Al-Cărui-Nume-Nu-Trebuie-Pomenit
acel-whose-name-not-must-be.mentioned
[Romanian; Dora Mihoc]

(6) **See**-kelle-nime-ei-tohi-nimetada
This-who.gen-name.par-neg-allow(deontic)-name
[Estonian; Marky Sparky]

a. only one demonstrative *see* in standard Estonian
b. in dialects where there are two, *see* is proximal

He-who-must-not-be-named

Using pronouns

(7) **Er**, dessen Name nicht genannt werden darf
he, of-whom not called be may

[German; Laurence B-Violette]

(8) **Hij** die niet genoemd mag worden
he who not can called may be

[Dutch; Dominique Blok]

(9) **Han** som ikkje må verta kalla ved namn
He REL not must become called by name

[Norwegian; Sverre Stausland]

(10) **i** ji e-nu naam na le-vai
3.sg comp 3.sg-gen name neg take-mod

[Kutchi Gujarati; Pritty Patel-Grosz]

(11) **hann** sem ekki má nefna
he REL NEG may.deontic name

[Icelandic; Mark Norris]

(12) **hän**-kenen-nimeä-ei-pidä-mainita
he-whose name-PART-neg.3SG-must-mention

[Finnish; Miriam Nussbaum]

Two Voldemorts

Familiar V

Unknown V

Two Voldemorts

Familiar V

Unknown V

(13) He who must not be named [English]

Two Voldemorts

Familiar V

Unknown V

(13) He who must not be named [English]

(14) ilum-ul malhayse-nun antoy-nun ca
name-ACC say-TOP cannot-RC person
'a/the person whose name cannot be said' [Korean]

Two Voldemorts

Familiar V

Unknown V

(13) He who must not be named [English]

(14) ilum-ul malhayse-nun antoy-nun ca
name-ACC say-TOP cannot-RC person
'a/the person whose name cannot be said' [Korean]

(15) namae-wo itte-wa ikenai **ano** hito
name-ACC say-TOP cannot ano person
'that person whose name cannot be said' [Japanese]

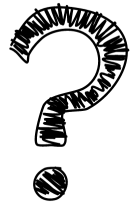
Two Voldemorts

Familiar V

[Cantonese]

(16) nà ge rén
that CL person
'that person'

Unknown V



[Mandarin]

(17) shénmì rén
mysterious person
'mysterious person'

Jenny Fan, pc.

Mechanisms of reference

Reference is a core element of communication

*three basic types of signs (Charles Peirce): symbols, icons, indices

[Beatric Santorini, pc]

- description — linguistic
- depiction — gestural
- pointing — indexical

All three mechanisms used in reference across languages:

(18) a. those who read everyday
b. those$_{\rightarrow}$
c. those$_{7}$

Mechanisms of reference

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Languages vary on how these are marked, but often involve **definites** and **demonstratives**

- delineating the boundary is difficult — how are demonstratives special?

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Languages vary on how these are marked, but often involve **definites** and **demonstratives**

- delineating the boundary is difficult — how are demonstratives special?
- Let's try flipping the question! — how are definites special?

Demonstratives

Demonstratives: something that *demonstrates* 👉🏽

(19) a. that, those [pronominal]
b. that linguist, those philosophers [adnominal]

*focus on distal demonstratives

<u>some characteristics</u>

- possibly universal (unlike definite descriptions or 3rd person pronouns)
  [Diessel 1999; Dixon 2003; Himmelmann 1996; Levinson 2018]
- one of the earliest words acquired
  [Clark 1978; Tanz 1980]
- integrated with deixis to establish joint attention
  [Baker et al. 2008; Bates 1976; Clark 1978; Diessel 1999; West 2011]
- varied in morphosyntactic status, range of meanings
  [Cleary-Kemp 2007; Himmelmann 1996; Jenks 2015; Šimík 2018]

Definites as special demonstratives

Often, demonstratives analyzed as special definites:

⟦DEM⟧ = ⟦DEF⟧ + demonstration [Roberts 2002]
at-issue gesture [Ebert et al. 2020]
non-default situation [Wolter 2006]
accidental uniqueness [Šimík 2018]
binding restrictions [Hinterwimmer 2015, 2018]
additional restriction [Elbourne 2005; King 2001]

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Generalization: ⟦DEM⟧ = ⟦DEF⟧ + something else
in other words, ⟦**DEF**⟧ **=** ⟦**DEM**⟧ − **something**

Definites as special demonstratives

Reference:

[description]

- Reference requires two kinds of information: description and linker
  - linker: pointing, description, anaphoric saliency
- Definites used when linker is not necessary [[DEM]] – linker
- Languages choose to mark [-linker] or {kinds of linkers} differently

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- Languages choose to mark [-linker] or {kinds of linkers} differently

Analysis

Demonstratives

Demonstratives consist of description and linker

- Hidden Argument Theories [King 2001, Elbourne 2005, Nowak 2019, Blumberg 2020, a.o.]: Demonstratives carry an additional restriction

(20) $[\![\text{the F}]\!] = \iota x.\ F(x)$

(21) $[\![\text{that F}]\!] = \iota x.\ F(x) \wedge G(x)$

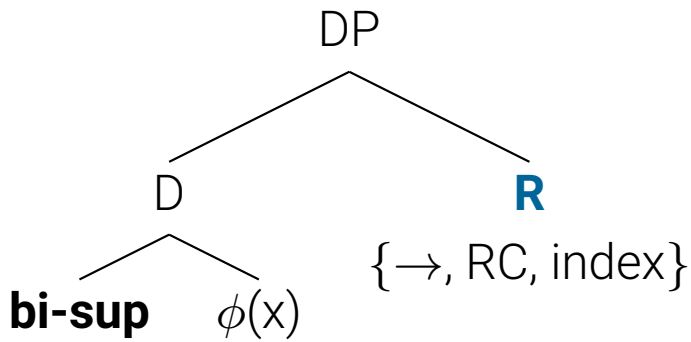
  - G(x) can be trivial, an index, a relative clause
  - [Simonenko 2014] functional head is either index or restrictive relative clause
  - [Nowak 2019] G(x) cannot be trivial
    - syntactic restriction: CP appearing outside $[_{DP}$ the F]
    - semantic restriction: presupposition of proper restriction
  - pragmatic restriction [Ahn 2019; Blumberg 2020]:
    - Minimize Restrictors [Schlenker 2005]

Demonstratives

Demonstratives consist of description and linker

- R can be a deictic pointing, a relative clause, and an index
  [King 2001, Elbourne 2005, Simonenko 2014, Nowak 2019, Ahn 2019, a.o.]
- In other words: **R is where the linker goes**

(22)



- Motivation for binary structure: non-verbal modality
- **demonstratives** as a modality linker
- Unique Modality Hypothesis

[Hinterwimmer 2022, 1st meeting]: 'Demonstratives always involve pointing gesture as part of their conventional meaning' (slide 39)

Analysis in more detail

Unified analysis of definite expressions

D-2 Theory

- Share the underlying structure — ιx.[restrictions](x)
- Differ only in restrictions — $[\![$NP$]\!]$, ϕ, entity

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Only differ in the kinds of restrictions they carry

(23) $[\![\text{the linguist}]\!] = \sup [\phi(x) \wedge [\![\text{linguist}]\!](x)]$ the maximal linguist entity

Analysis in more detail

Unified analysis of definite expressions

D-2 Theory

- Share the underlying structure — ιx.[restrictions](x)
- Differ only in restrictions — ⟦NP⟧, ϕ, entity

Only differ in the kinds of restrictions they carry

(23) ⟦the linguist⟧ = sup [ϕ(x) ∧ ⟦linguist⟧(x)] — the maximal linguist entity

(24) ⟦she⟧ = sup [ϕ(x)] — the maximal [+fem,+sg] entity

pronoun vs. description

Pronouns as descriptions

- D-Type theories
  [Elbourne 2005; Evans 1980; Heim 1990; Neale 1988]

(25) $[\![\text{she}]\!] = [\![\text{the NP}]\!] = \iota x.[\![\text{NP}]\!](x)$ [Elbourne 2005]

D-2: A pronoun only carries semantic ϕ-features as restrictions

- Semantic ϕ-features treated as <e,t> modifiers (also in Esipova 2018)
- [Postal 1966] Pronouns as descriptions that carry features like [+masc,+3rd,+refl] instead of NPs in deep structure

pro vs. pronoun vs. description

Definite expressions do differ in their restrictions, and only in their restrictions.

$[\![\text{pro}]\!]$ = sup $[\lambda x.\ \text{entity}(x)]$
$[\![\text{she}]\!]$ = sup $[\lambda x.\ \text{entity}(x) \wedge \phi(x)]$
$[\![\text{the woman}]\!]$ = sup $[\lambda x.\ \text{entity}(x) \wedge \phi(x) \wedge \text{woman}(x)]$

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Different from:

- general assumptions [Heim and Kratzer 1998]
  ⟦she⟧ = x_n
  ⟦the woman⟧ = ιx. woman(x)

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  ⟦she⟧ = x_n
  ⟦the woman⟧ = ιx. woman(x)
- Familiarity theory [Roberts 2003]
  ⟦the woman⟧ = weakly familiar woman entity
  ⟦she⟧ = weakly familiar + salient female entity

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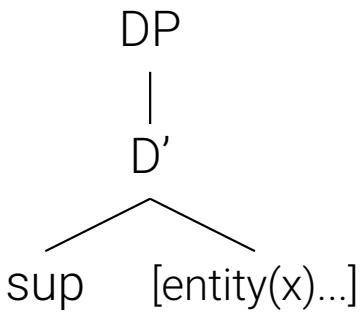
  ⟦the woman⟧ = weakly familiar woman entity
  ⟦she⟧ = weakly familiar + salient female entity
- D-type theories
  ⟦she⟧ = ⟦the ~~woman~~⟧ = ιx. woman(x)
  ⟦the woman⟧ = ιx. woman(x)

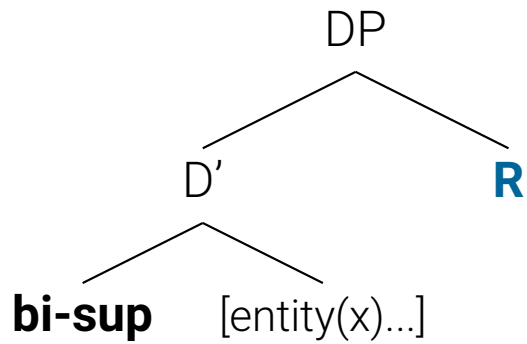
Binary supremum operator

An implementation of this idea in Ahn 2019

(26) $[\![\text{bi-sup}]\!] = \lambda P.\ \lambda R.\ \iota x{:}\forall y\ [P(y) \wedge R(y) \leftrightarrow y \sqsubseteq x]$



definite
‘the maximal entity
that is [restriction]



demonstrative
‘the maximal entity
that is [restriction]
and **also R**

Restrictions

First argument

- Different expressions carry different kinds of restrictions
  - null pro: just entity(x)
  - pronominal demonstrative: just ϕ(x)
  - adnominal demonstrative: ϕ(x) and ⟦NP⟧(x)

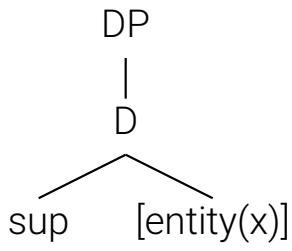
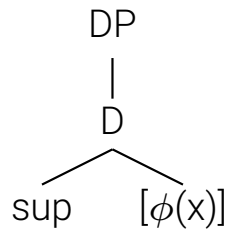
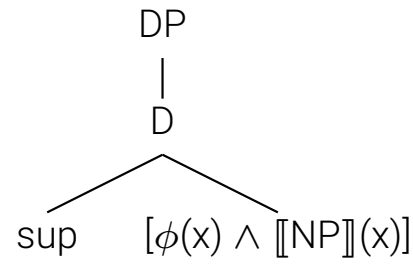
Second argument

- **R hosts the linker**

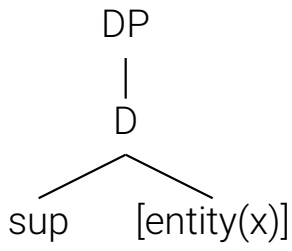
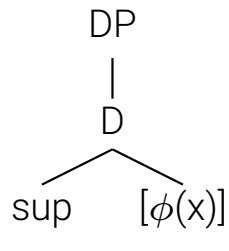
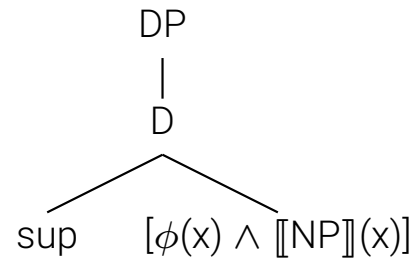
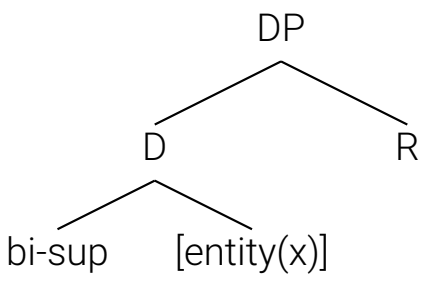
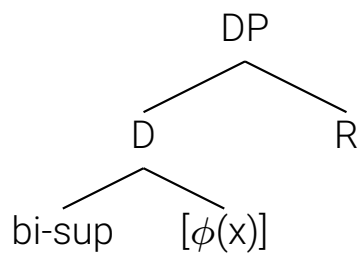
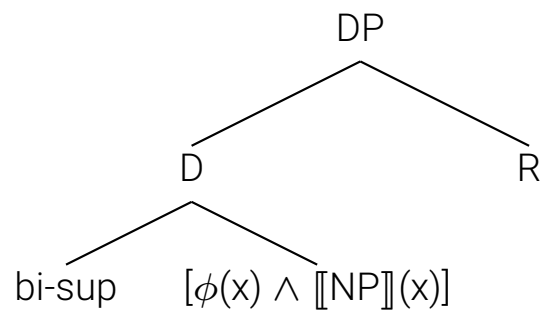
Main consequence

The difference between definite expressions is not linear, **but is a 2$\times$n contrast**

2×n contrast

	entity(x)	**ϕ(x)**	**[[NP]](x)**
[unary]			
	pro	*it*	*the book*

2×n contrast

	entity(x)	**ϕ(x)**	**[[NP]](x)**
[unary]			
	pro	*it*	*the book*
[binary]			
	pro	*that*	*that book*

Content of R

What can serve as a linker, hosted in R?

1. overt locational gesture $\rightarrow$ (pointing)
2. overt description (relative clause)
3. covert pointer (index)

Content of R

What can serve as a linker, hosted in R?

1. overt locational gesture → (pointing)
2. overt description (relative clause)
3. covert pointer (index)

Evidence for natural class:

{→, relative clause, index} found in:

- degree heads, equatives
- other languages (German demonstrative *so*)

Content of R

Referent arguments of degree heads, equatives provided by:

1. covert, anaphoric argument
2. overt, clausal argument

(27) a. I have the same book.
b. I have the same book that you have. [Hanink 2018]

(28) a. My book is longer.
b. My book is longer than yours is. [Alrenga et al. 2012]
[Bhatt and Takahashi 2011]

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We can add deixis to these:

- [same book]$_{\rightarrow}$
- [my book is longer]$_{\rightarrow}$

Content of R

German demonstrative *so* [Umbach and Gust 2014]

(29) a. (speaker pointing to someone preparing a fish)
So hat Anna den Fisch (auch) zerlegt.
'Anna cut the fish like this, (too).' [deictic]

b. Berta zerlegte den Fisch in fünf Teile. Anna hat das auch so gemacht.
'Berta cut the fish in five parts. Anna did it like that, too.' [anaphoric]

c. Anna hat den Fisch so zerlegt, wie diese Person es tut.
'Anna cut the fish like this person did.' [clausal]

[Umbach and Gust 2014;(1c),(2c),(4c)]

Content of R

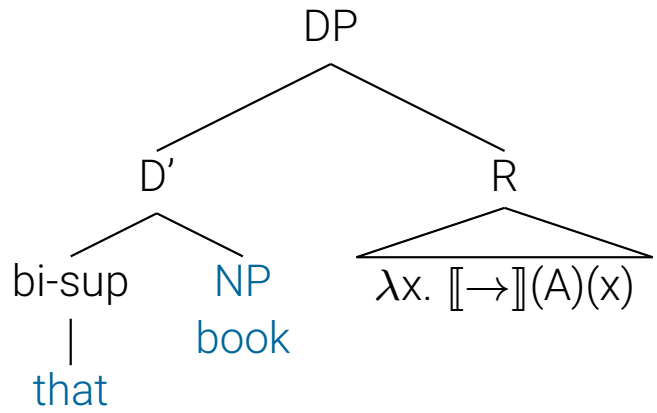
What is the semantic contribution of $\rightarrow$?

- **a locational property**
  $[\![\rightarrow_A]\!] = \lambda x.$ x is at A
    - $[\![\rightarrow]\!] = \lambda a.\ \lambda x.$ x is at a

- Why location and not individual?
    - many assume that deixis is just returning an individual index (Heim and Kratzer 1998) or a situation variable (Grosz 2019; Wolter 2006)
    - demonstratives across languages (distance- or person-oriented) mark distinctions that are locationally determined (Diessel 1999) [±proximal], [±near speaker, ±near addressee]

Deictic use

$[\![\text{that book}_{\rightarrow A}]\!]$ =

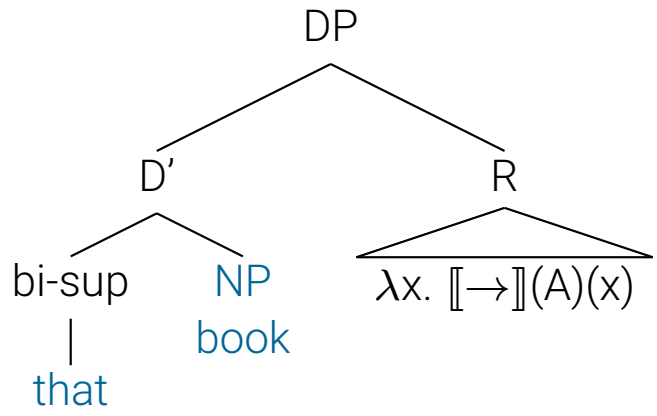


bi-sup [λx. entity(x) ∧ [[book]](x)] [λx. [[→]](A)(x)]

‘the maximal entity *x* that is a book and at A’

Deictic use

$[\![\text{that book}_{\rightarrow A}]\!]$ =



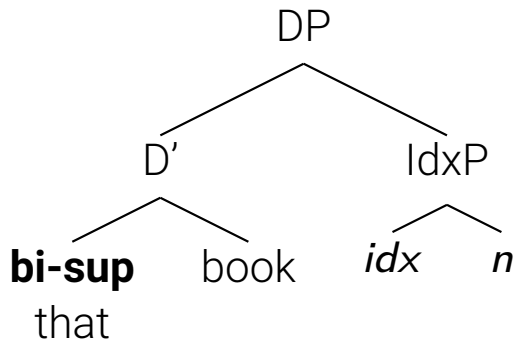
bi-sup [λx. entity(x) ∧ [[book]](x)] [λx. [[→]](A)(x)]

‘the maximal entity *x* that is a book and at A’

$[\![\text{that}_{\rightarrow A}]\!]$ =
bi-sup [λx. entity(x) ∧ [-animate,+sg](x)] [λx.[[→(A)]](x)]
‘The maximal inanimate entity that is at A’

R filled with an anaphoric index

$[\![[\text{that book}]_7]\!]$ =



bi-sup(λx.book(x))([λn.λx.x = g(n)](7)(x))

'the maximal book entity that is identical to g(7)'

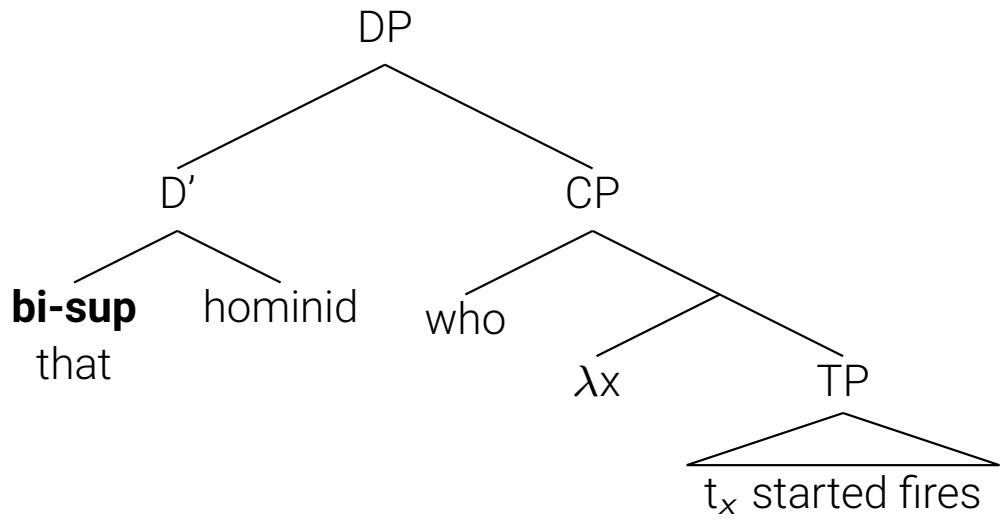
can account for:

(30) I met a linguist. That linguist looked happy. [anaphoric]

(31) Every time I found a book about Berlin I bought that book. [VB]

R filled with a CP

⟦that hominid who...⟧ =



can account for: [Elbourne 2013; King 2001]

(32) That hominid who discovered how to start fires was a genius. [descriptive]

(33) That which rolls faster gathers no moss. [generic]

Deriving possible readings of demonstratives

Demonstratives always carry *R*

- This *R* must be filled, but only once: $\rightarrow$, *i*, CP

$\rightarrow$ Predictions on possible readings

Deriving possible readings of demonstratives

Demonstratives always carry R

- This R must be filled, but only once: $\rightarrow$, i, CP

$\rightarrow$ Predictions on possible readings

Demonstrative with $\rightarrow$: cannot be anaphoric

- Pointing blocks covarying reading for demonstratives
  [Ahn and Davidson 2018]

(34) a. I saw [a water-type Pokemon]$_i$. That$_{\rightarrow *i}$ looked happy.
b. I saw [a water-type Pokemon]$_i$. [That Pokemon]$_{\rightarrow *i}$ looked happy.

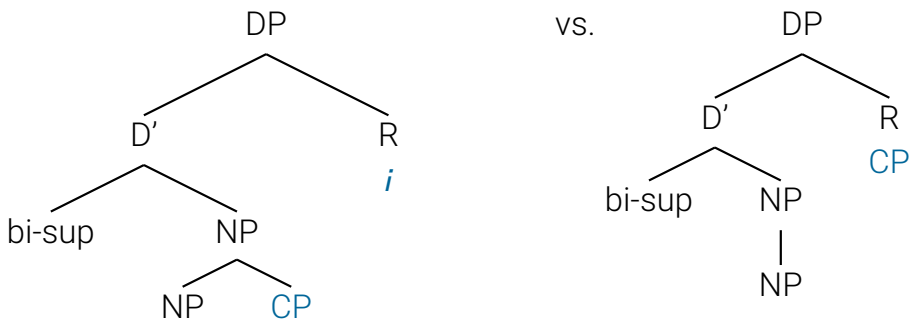
Deriving possible readings of demonstratives

Demonstratives always carry *R*

- This *R* must be filled, but only once: →, *i*, CP

→ Predictions on possible readings

Adnominal demonstrative with CP: two options



Deriving possible readings of demonstratives

Demonstratives always carry *R*

- This *R* must be filled, but only once: $\rightarrow$, *i*, CP

$\rightarrow$ Predictions on possible readings

Adnominal demonstrative with CP: two options

[Šimík 2022, 1st meeting]

(35) a. He bought the cheapest car he managed to find.

b. #He bought that cheapest car he managed to find.

- With (35b), R must have an anaphoric index, but incompatible with the superlative reading

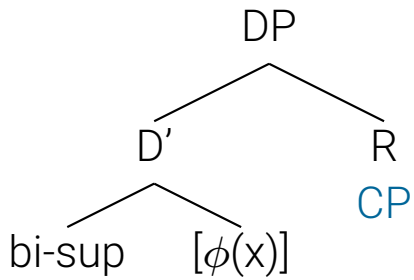
Deriving possible readings of demonstratives

Demonstratives always carry ***R***

- This ***R*** must be filled: $\rightarrow$, ***i***, CP
- But only one element can fill ***R*** at a time

$\rightarrow$ Predictions on possible readings

Pronominal demonstrative with CP: no anaphoric reading predicted



- No NP argument, so CP can only occur in ***R***

(36) I saw [a computer that is broken]$_{a}$. [That which is broken]$_{?a}$ had to be thrown away.

Deriving possible readings of demonstratives

Demonstratives always carry *R*

- This *R* must be filled: →, *i*, CP
- But only one element can fill *R* at a time

→ Predictions on possible readings

R without an overt argument (→ or CP): *must* be anaphoric

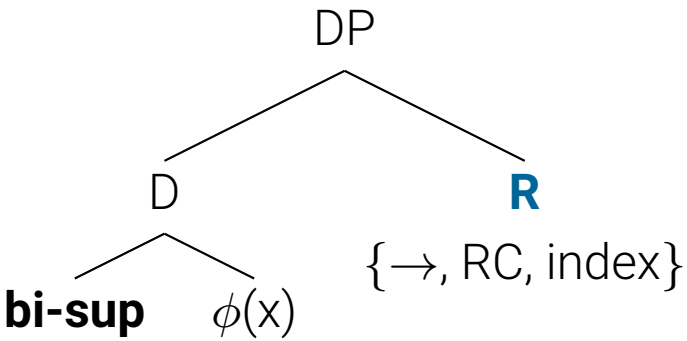
- puzzle in Nowak 2019:

(37) a. That guy who wrote *Waverley* also wrote Ivanhoe.
b. #That author of *Waverley* also wrote *Ivanhoe*.

- Nowak: G(x) must properly restrict F(x).
- BUT! This semantic restriction is too strong (Blumberg 2020)
- Alternative: (37b) is out because it's anaphoric and lacks an antecedent

(38) I met the author of *Waverley*. That author of *Waverley* also wrote Ivanhoe.

Marking R



Languages vary in marking {→, RC, index}:

- English *that*: occurs with all three
- Korean: *ku* used for index, *ce* used for →, ∅ (bare noun) for RC
- Romanian: short dem for index, long dem for →

  (*there's more to the data, Klaus von Heusinger, pc)

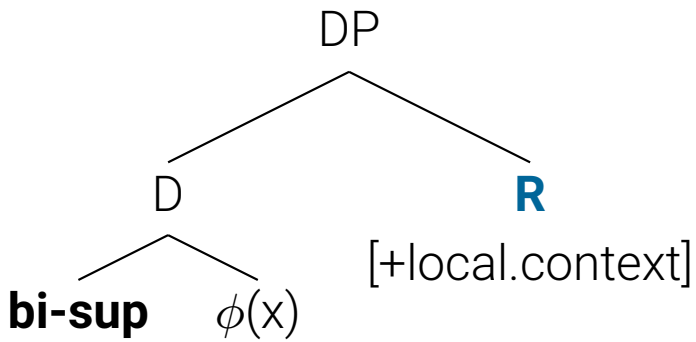
Contextually saturating *R*

Sometimes, the entity is *so* salient that the linker is not necessary and can be filled with context:

1. entity is close-by

R filled with [+local.context]

- proximal demonstratives



  - anaphoric reading with proximal demonstrative is not so good
  - proximal demonstrative does not host RC like *those* or *that* ?this which rolls

Contextually saturating *R*

Sometimes, the entity is *so* salient that the linker is not necessary and can be filled with context:

2. entity is sufficiently salient
R is not necessary
regular domain restriction would do
(domain restriction of quantifiers)

(39) Everyone$_D$ attended the party.

- *the* in English
- bare nouns in bare argument languages
- related to default vs. non-default situation [Wolter 2006]

Summary - Demonstratives vs. Definites

1. Demonstratives involve a description and a linker
2. Definites involve just the description
3. Description doesn't always require an NP (can be just ϕ(x), etc.)

Consequences

- distinction between pronouns and definites: restrictions
- distinction between definites and demonstratives: unary vs. binary

	pronominal	adnominal
unary	sup[ϕ(x)]	sup[ϕ(x) $\wedge$ [[NP]](x)]
binary	bi-sup[ϕ(x)](R(x))	bi-sup[ϕ(x) $\wedge$ [[NP]](x)](R(x))

Extending to def_S vs. def_W

Observation

Strong definites overlap with demonstratives across languages

- Most, if not all, languages — including “at least in German, Fering, Akan, Mauritian Creole, Haitian Creole, and Hausa” (p.552) — allow the strong article to be used in deictic contexts
- In many cases, the$_s$ in German can be translated to English demonstrative *that* – Overlap but not complete
- English *that* allows deictic uses

[Schwarz 2009, 2013]

- Many bare argument languages use demonstratives for the$_s$ [Jenks 2015]

Strong definites and demonstratives

Deictic use of the$_S$ in German:

(40) Has ist in **DEM** Auto [pointing at car 1] gekommen, nicht in
Has is in the$_{\text{strong}}$ car come not in
Dem Auto [at 2]
the$_{\text{strong}}$ car
'Hans came in that car, not in that car.'

- Requires phonological stress

[Schwarz 2009]

Strong definites and demonstratives

English *that*:

- Allows the$_S$ readings;

  (41) A man$_i$ walked in. **That** man$_i$ waved at another man. [Wolter (2006)]

- Has deictic uses:

  (42) John came in that$_{\rightarrow 1}$ car, not that$_{\rightarrow 2}$ car.

Strong definites in other languages

$\text{Def}_{\text{strong}}$ is often marked with demonstratives

Thai [Jenks 2015]

(43)

a. *mɨawaan phŏm cəə kàp nákrian khon nɨŋ.*
Yesterday 1ST meet with student CLF INDEF
'Yesterday I met a student.'

b. i. *(nákrian) khon nán / (kháw) chalàat mâak.*
student CLF that / 3P clever very
'That student/(s)he was very clever.'

Strong definites in other languages

$\text{Def}_{\text{strong}}$ is often marked with demonstratives

Korean [Ahn 2017]

(44) Thulephul-ey tayha-n chayk-i issnu-n motun tosekwan-eyse
truffle-dat about-rc book-nom exist-rc every library-dat
na-nun ***(ku)** chayk-ul pillyewass-ta.
I-topic **ku** book-acc borrowed
'In every library that has a book about truffles, I checked out the book.'

also in Mandarin, Japanese, Romanian...

Diachronic data

Definites often emerge from demonstratives [Lyons 1999]

[Simonenko 2022, 1st meeting]

- intermediate stage between demonstratives and definites proper
- ‘an element which has retained [+dem] but lost the deictic feature (proximal, distal)’ (slide 5)
- **strong definite determiner** as intermediate stage [+dem] definite
- while details differ, strong definite and demonstrative overlap

		ANTECEDENT		NP WITH A REL
Common Ground	$\lvert[\![NP]\!]^s\rvert>1$	$\lvert[\![NP]\!]^s\rvert=1$	underspec	
demonstrative	must	affective	may	affective/recog
strong definite	shouldn’t	shouldn’t	must	must

Proposal

	pronominal	adnominal
unary	sup[ϕ(x)]	sup[ϕ(x) $\wedge$ ⟦NP⟧(x)]
binary	bi-sup[ϕ(x)](R(x))	bi-sup[ϕ(x) $\wedge$ ⟦NP⟧(x)](R(x))

Def_{weak} vs. $\text{Def}_{\text{strong}}$ distinction recast as unary vs. binary

Consequences

1. unary vs. binary distinction is universal
2. variation on whether this distinction is marked, whether there is a more specified distinction of the different linkers {$\rightarrow$, RC, *i*}
3. weak vs. strong distinction extends beyond definites (ex. pronouns)

Proposal

Schwarz 2009: unique vs. familiar

(45) $[\![\text{the}_W]\!] = \lambda s_r.\ \lambda P\text{: } \exists!x(P(x)(s_r)).\ \iota x.P(x)(s_r)$

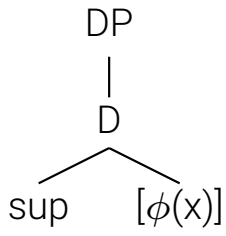
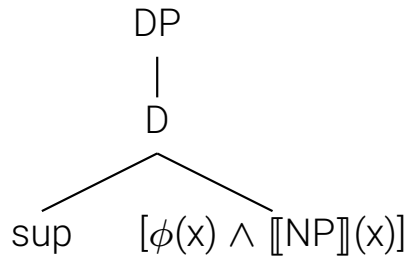
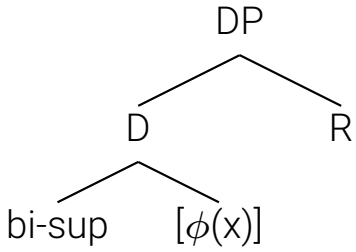
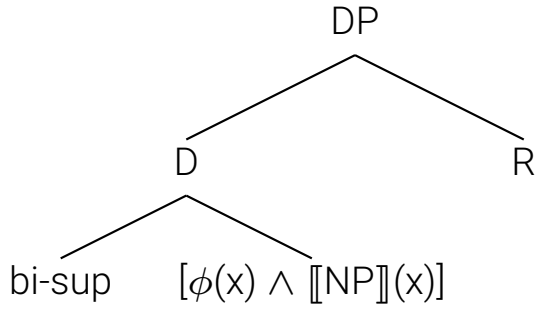
(46) $[\![\text{the}_S]\!] = \lambda s_r.\ \lambda P.\ \lambda y\text{: } \exists!x(P(x)(s_r) \ \&\ x=y).\ \iota x.P(x)(s_r) \ \&\ x=y$

recast as: unary vs. binary

(47) $[\![\text{DEF}_{\text{unary}}]\!] = \lambda s_r.\ \lambda P\text{: } \exists!x(P(x)(s_r)).\ \iota x.P(x)(s_r)$

(48) $[\![\text{DEF}_{\text{binary}}]\!] = \lambda s_r.\ \lambda P.\ \lambda Q\text{: } \exists!x(P(x)(s_r) \ \&\ Q(x)(s_r)).\ \iota x.P(x)(s_r) \ \&\ Q(x)(s_r)$

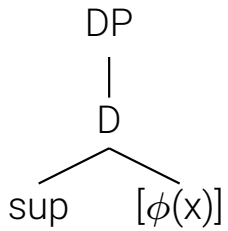
2×n contrast in English

	ϕ(x)	**⟦NP⟧(x)**
[unary]		
	it, they	*the book*
[binary]		
	that, those, he, she {→, RC, (*i*)}	*that book* {→, RC, *i*}

2×n contrast in English: pronouns

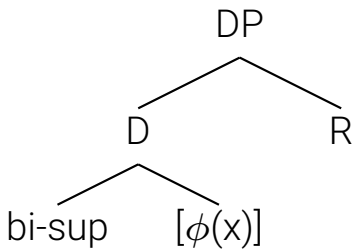
ϕ(x)

[unary]



it, they

[binary]



that, those, he, she

{→, RC, (*i*)}

it and *they* as unary pronouns

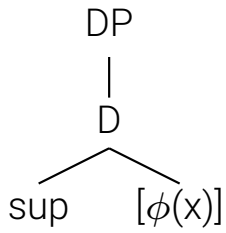
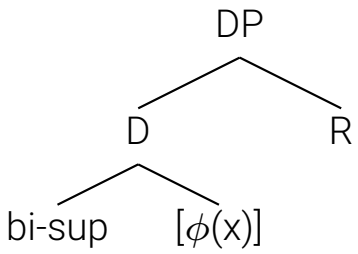
- pointing is bad

  (49) it$_{\rightarrow}$ is broken.

- RC is bad [Elbourne 2013; Zobel 2015]

  (50) a. that/*it which rolls
  b. he/?they who hesitate

2×n contrast in English: pronouns

	ϕ(x)
[unary]	 *it, they*
[binary]	 *that, those, he, she* {→, RC, (*i*)}

it and *they* as unary pronouns

- pointing is bad

  (49) it$_{\rightarrow}$ is broken.

- RC is bad [Elbourne 2013; Zobel 2015]

  (50) a. that/*it which rolls
  b. he/?they who hesitate

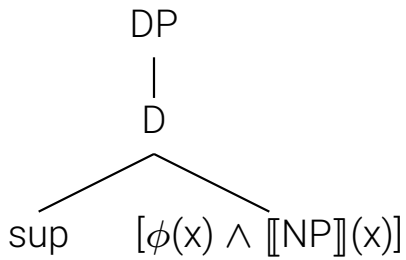
he, she as binary pronouns

- allows pointing and RC
- competes with demonstratives [Ahn 2022]

2×n contrast in English: definite descriptions

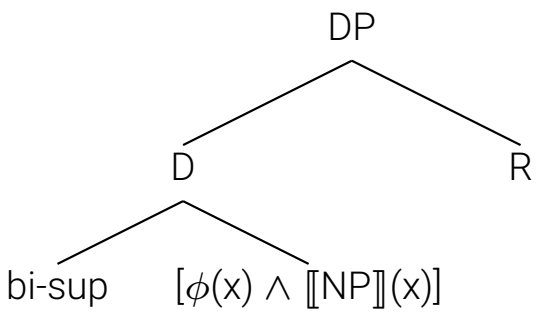
⟦NP⟧(x)

[unary]



the book

[binary]



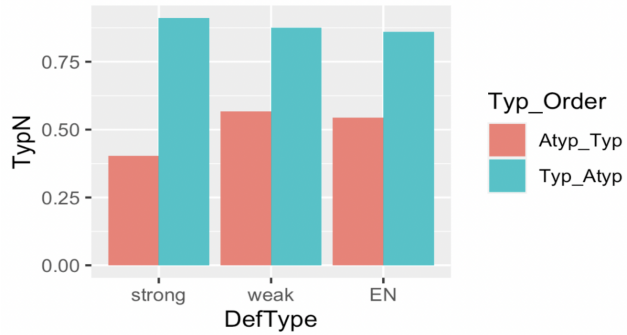
that book
{→, RC, *i*}

the NP as unary definite

- restrictive pointing is bad [Ebert et al. 2020]

  (51) [The phone]$_{\rightarrow}$ is broken.

- experimental evidence aligns Def$_W$ with *the* [Schwarz 2022, 1st mtg]



that NP as binary definite

- allows *i*, →, and RC

Implications

1. Situation binding vs. index-based binding

English *the* allows anaphoric readings [Schwarz 2009]

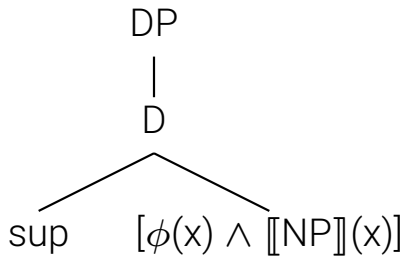
- boundary between index-based binding and situation-based binding is hard to tease apart [Schlenker 2011]
  - [Šimík 2018]: subsuming anaphora under accidental uniqueness unique in discourse situation, not others)
  - [Wolter 2006]: demonstrative unique in non-default situation, which ends up being anaphoric
- unary: situation-based

  binary: real indices present
- [Q] Is this distinction necessary?
- [Q] Can situation vs. relational bridging help us here?

2×n contrast in Korean

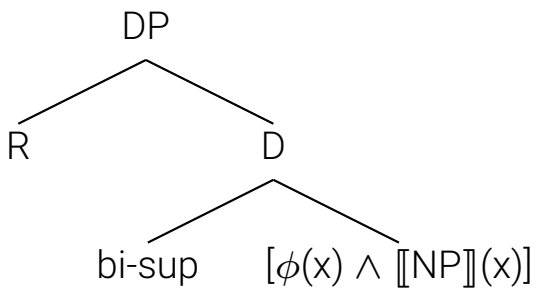
⟦NP⟧(x)

[unary]



chayk (BN)

[binary]



{ce, ku, i} book

{→, RC, *i*}

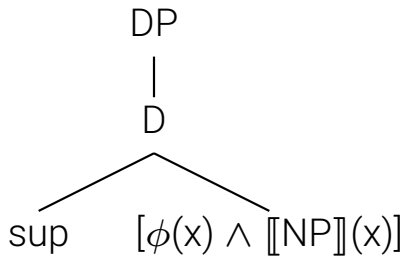
Korean does not have morphologically simplex pronouns

[Ahn 2019]

2×n contrast in Korean

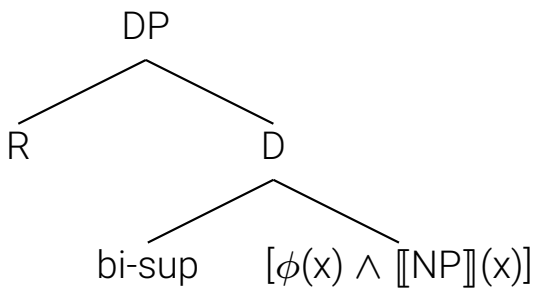
⟦NP⟧(x)

[unary]



chayk (BN)

[binary]



{ce, ku, i} book
{→, RC, *i*}

Korean does not have morphologically simplex pronouns

[Ahn 2019]

Binary definite marked with DEM
but different linkers marked differently

→ *ce* *i ku*

(52) {ku, ce} chayk cwe
DEM book give.imp
'Give me that book'

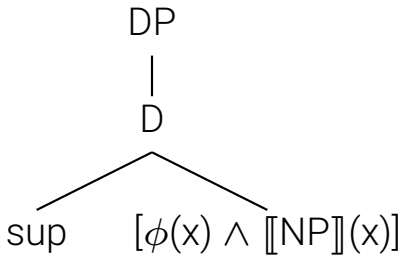
a. *ku*: addressee familiar
b. *ce*: deictically picked

ce blocks anaphoric reading even without pointing [Ahn and Davidson 2018]

2×n contrast in Korean

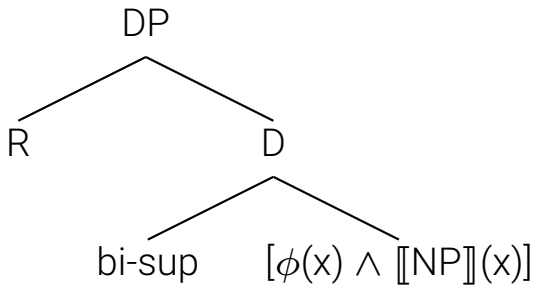
⟦NP⟧(x)

[unary]



chayk (BN)

[binary]



{ce, ku, i} book

{→, RC, *i*}

unary vs. binary RC in Korean

unary RC, inside NP

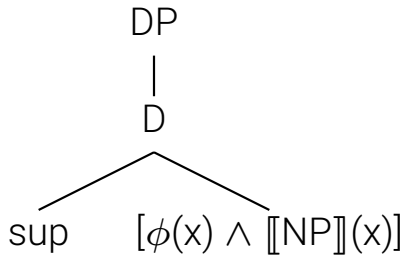
(53) chayk-ul ilk-nun salam
book-acc read-RC person
'those who read'
'the person who reads'

- can be preceded with {ku, ce, i}

2×n contrast in Korean

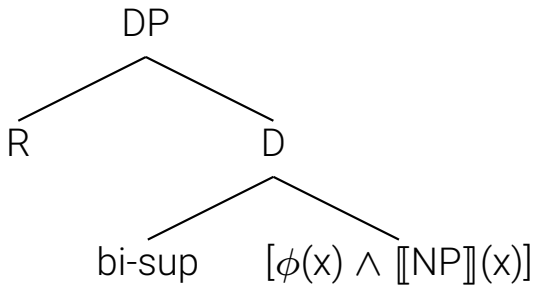
⟦NP⟧(x)

[unary]



chayk (BN)

[binary]



{ce, ku, i} book

{→, RC, *i*}

unary vs. binary RC in Korean

unary RC, inside NP

(53) chayk-ul ilk-nun salam
book-acc read-RC person
'those who read'
'the person who reads'

- can be preceded with {ku, ce, i}

binary RC?

(54) chayk-ul ilk-nun i
book-acc read-RC **dem**
'those who read'
*'that person who reads'

- cannot be preceded with DEM

Implications

2. DEM is not always deictic

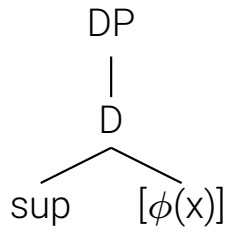
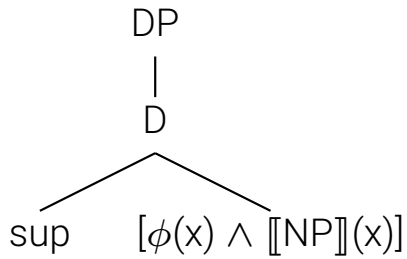
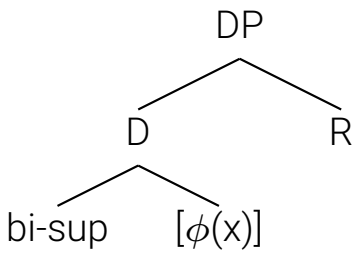
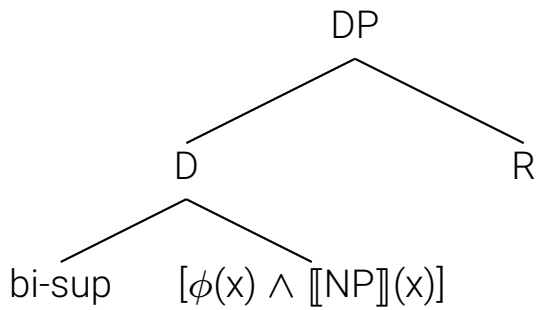
- Many languages marked as having three-way deictic contrast

(55) Korean [Sohn 2001]

a. *i*: proximal
b. *ce*: far from both
c. *ku*: close to addressee

- *ku* marks familiarity, not closeness to addressee [Ahn 2017]
- If we consider DEM to be a reflection of the binary structure, one of which can be anaphoric, we can account for anaphoric demonstratives across languages

2×n contrast in German?

	ϕ**(x)**	⟦**NP**⟧**(x)**
[unary]		
[binary]		

unary vs. binary

Reasons to think that R is relevant:

R: {$\rightarrow$, RC, index}

- the$_S$ associated with anaphoric readings [Schwarz 2009]
- the$_S$ can host relative clauses [Hanink and Grove 2017; Schwarz 2009; Simonenko 2014]
- the$_S$ allows deictic uses [Schwarz 2009]
  - though the$_S$ seems to interact with DEM
  - zoom-in vs. zoom-out contexts [terminology from Wolter 2006]

(56) a. I like that$_{\rightarrow}$ star but not that $\rightarrow$ star. [zoom-in]
b. Look at that$_{\rightarrow}$ star! [zoom-out]

- Def$_S$ less good with zoom-out (Florian Schwarz, pc)

Relative clauses

Observation: Def_s needed with restrictive relative clauses even in non-anaphoric contexts [Hanink and Grove 2017; Schwarz 2009]

(57) Fritz wohnt jetzt {in dem, #im} Haus, {von dem, *vom} er
Fritz lives now in the in+the house, from rel from+rel he
schon seit Jahren schwaärmt.
already since years raves
'Fritz now lives in the house that he has been raving about for years.'
[Hanink and Grove 2017]

- Puzzling if the_s is only anaphoric, but not if the_s contains R $\{\rightarrow, \text{RC}, i\}$

Relative clauses

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'Fritz now lives in the house that he has been raving about for years.'
[Hanink and Grove 2017]

- Puzzling if the$_s$ is only anaphoric, but not if the$_s$ contains R {$\rightarrow$, RC, *i*}

[Simonenko 2014]: Def$_s$ as having either *i* or RRC

- Def$_s$ has either index or RRC in its functional head
- RRC bleeds scopeless reading

Many related proposals

the$_S$ as having an additional projection [Hanink and Grove 2017; Patel-Grosz and Grosz 2010; Schwarz 2009; Simonenko 2014]

- → indexP generalized to other linkers used in reference
- → index does *not* subsume deixis; instead deixis is the main motivation for the binary structure
  - deixis as core characteristic of demonstratives [Ebert and Ebert 2014; Ebert et al. 2020; Roberts 2002]
  - subsuming anpahora under deixis [Hinterwimmer and Patil 2022, Hinterwimmer 2022, 1st meeting]

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weak vs. strong familiarity [Heim 1983; Roberts 2003]

- → weak familiarity: situational uniqueness
- → strong familiarity: actual presence of ***i*** in R

Nature of R

Q: Does R need to be just {→, RC, *i*}?

- Jiaxing Yu (Rutgers): names should be added

(58) Jiaxing na ge ren
Jiaxing dem cl person
'Jiaxing'

- Possibly related: Korean 'complex pronouns':

(59) oppa {ni, ku-ay, ce-ay, i-ay}
older.brother you that$_a$.kid that$_d$.kid this.kid
'you, he'

Nature of R

Q: Does R need to be just {→, RC, *i*}? (cont.)

- Deriving anaphoric uses from demonstration

  [Hinterwimmer 2019; Roberts 2002, Hinterwimmer & Ebert, 1st meeting]

  (60) Last night, a labrador and a golden retriever fought with each other in front of my house.

  a. Fortunately, [the labrador] gave up pretty soon and ran away.
  b. Fortunately, [the golden retriever] gave up pretty soon and ran away.
  c. ??Fortunately, [that labrador] gave up pretty soon and ran away.
  d. ??Fortunately, [that golden retriever] gave up pretty soon and ran away.

  - ⟦that⟧ involves covert/overt demonstration
  - when demonstration covert, it must stand out
    - *plural antecedent
    - *context with three equally-salient dogs

Nature of R

Developmental data: → as primary

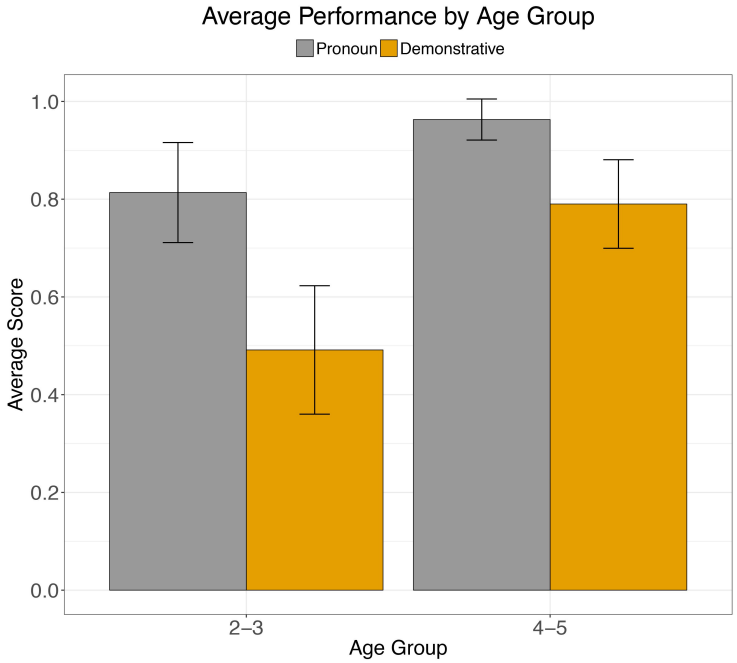
- Children learn demonstratives very early, but do not distinguish between proximal and distal easily [Clark and Sengul 1978; Diessel and Monakhov 2022]
- English-learning children do not acquire anaphoric use of *that* until 4-5y.o [Ahn and Arunachalam 2019]

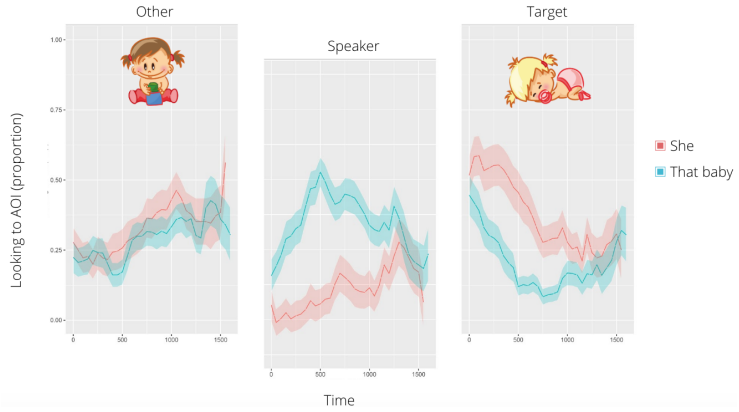
One baby is my friend. {She/That baby} is sleeping.
Which baby is my friend?

Nature of R

Developmental data: → as primary

- English-learning children do not acquire anaphoric use of *that* until 4-5y.o [Ahn and Arunachalam 2019]
- Eyegaze data suggest that they are looking for an overt demonstration upon hearing *that baby*





One baby is my friend. {She/That baby} is sleeping. Which baby is my friend?

Conclusion

Summary

1. **Definites as demonstratives without linker**
   - avoids undergeneration issues with specific implementations of demonstratives
2. **2×n contrast in definites**
   - pronominal and adnominal definites
   - unary vs. binary
3. **Subsuming Def$_W$ vs. Def$_S$ under unary vs. binary**
   - accounts for Def$_S$ used with RC, relational bridging
   - pronouns can be unary or binary (Elbourne's puzzle)
   - demonstratives allow relational bridging (preliminary data)

So what do demonstratives tell us about strong definites?

Binary definites (those with description and linker) are (arguably) universally attested.

Developmental and diachronic data suggest that they are the default forms

Some languages mark unary definites, too.

- Def$_W$ articles across languages
- Often covert (ι) [Chierchia 1998b; Dayal 2011; Jiang 2017, but also see Šimík and Demian 2020]

Def$_S$ is one of the possible instantiations of the binary definite.

- cross-linguistic typology: marker of a linker, rather than anaphoricity (especially if anaphoricity can come about in multiple ways)

Thank you!

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BRANEN

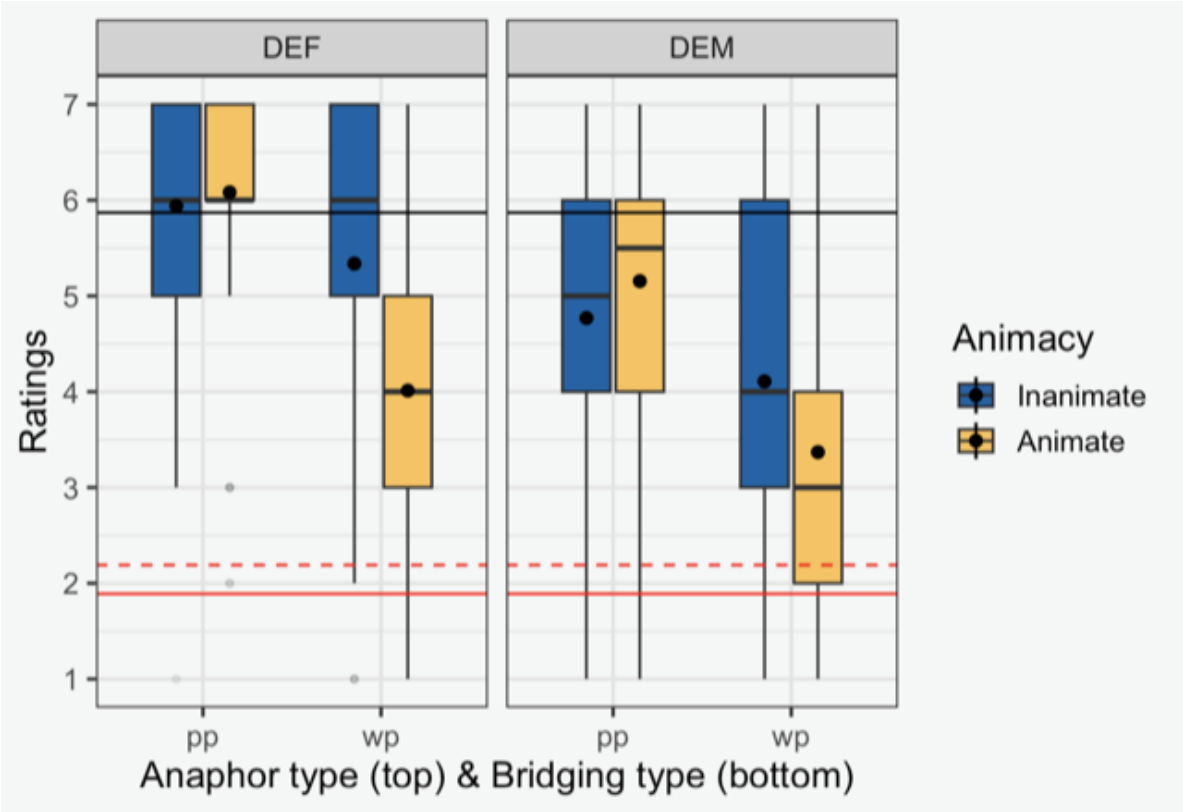
[Ziling Zhu, in prep]

	product-producer	part-whole
DEF	The film premiered yesterday. We ran into **the** director afterwards.	I bought the car last year. I always forget to check **the** brake.
DEM	The film premiered yesterday. We ran into **that** director afterwards.	I bought the car last year. I always forget to check **that** brake.

BRANEN

[Ziling Zhu, in prep]

part-whole	I bought the car last year. I always forget to check the brake.
	Yesterday I saw the house. The roof was decayed.
	The bike is in the backyard. I'm planning to clean the seat.
	The laptop had a short-circuit. The screen went off immediately.
	I raised the horse in the backyard. I always like to pat the forehead.
	I just saw the dog. The nose was shining.
	The shark came up to the surface. I noticed the mouth immediately.
	The cat was sleeping on the blanket in the afternoon. The tail kept moving.
relational	Today I tried to open the lock. But I couldn't find the key.
	I forgot the account name, but the password is my mom's birthday.
	The TV is too loud. But I couldn't find the remote anywhere.
	The phone is running out of battery, but the charger happens to be broken.
	Yesterday I bought the book. I really want to meet the author.
	A drunk homeless man ruined the painting. The painter was very sad.
	The film premiered yesterday. We ran into the director afterwards.
	The presentation was awesome. The speaker had prepared very well.

BRANEN

[Ziling Zhu, in prep]