

# Towards a formal account of recognitional demonstratives

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*Two kinds of definites*  
*The first meeting of the Definiteness across domains network*

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# Recognitional demonstratives

**Recognitional demonstratives** appeal to hearer's prior evidence (typically reported) and can but don't need to fix the reference: Himmelmann 1996; Diessel 1999; Šimík 2016

(1) A Will you go swimming with us?

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no must.1S go to dentist go to Prague  
'No, I have to go {to the dentist / to Prague}.'

B<sub>2</sub> Ne, musím {jít k tomu zubaři / jet do té Prahy}.  
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Other **non-canonical demonstratives** (affective, indefinite)

- (2) a. **This** (≠ The) Henry Kissinger is really something! Lakoff 1974:347  
b. **Those** (≠ The) IBM ThinkPads are quite popular. Bowdle & Ward 1995:33  
c. ...there was **this** (≠ the) hippie, long-haired, slovenly. Prince 1981:233

# Plan

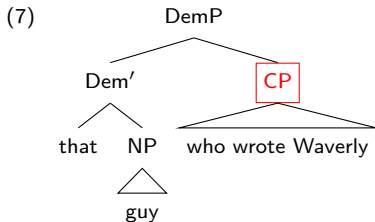
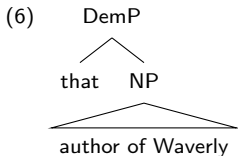
- Demonstratives with relative clauses (non-deictic, non-anaphoric)
- A weird kind of relative clause in Czech – how-relative
- How-relatives restrict demonstratives, but at the same time contribute conventional implicatures (sic!)
- Back to recognitional demonstratives
- Affective demonstratives?



## Nowak's solution

The relative clause occupies the **second argument of the demonstrative**.

King 2001; Wolter 2004; Elbourne 2008; Schwarz 2009; Simonenko 2014; Nowak 2014, 2021  
Jenks 2018; Hanink 2018, 2021; Ahn 2019; Jenks & Konate in press



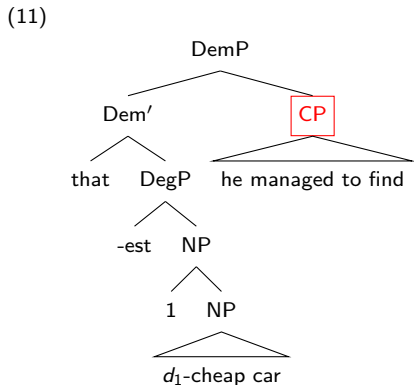
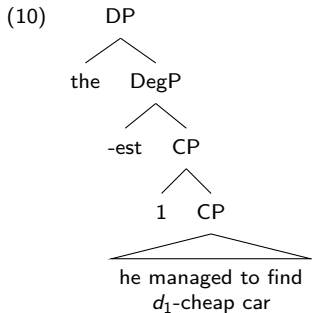
The second argument must help identify the denotation. It must not be trivial.

(8)  $[[NP] \cap [CP] \subset [NP]$

# Consequence (not discussed in Nowak)

Not just any relative clause will do:

- (9) a. He bought the cheapest car he managed to find.  
 b. #He bought that cheapest car he managed to find.



→ correct prediction



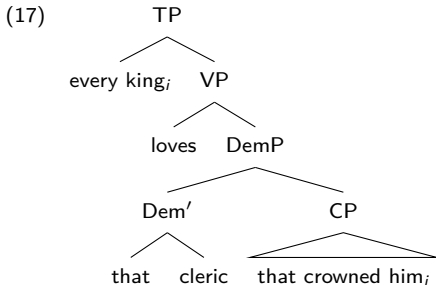




## Additional puzzle

Relative clauses can be quantified into (expected: c-command):

(16) Every king<sub>i</sub> loves that cleric who crowned him<sub>i</sub>.      King 2001, 2008; Elbourne 2008



How-relatives cannot be quantified into (despite c-command; attachment not enough):

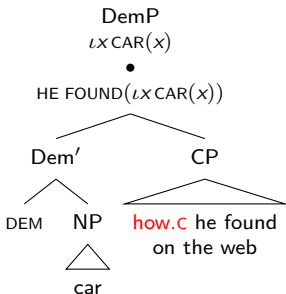
(18) Každý král<sub>i</sub> je zavázán tomu knězi, {který / co ho<sub>i</sub>} korunoval.  
 every king is indebted to to the priest.DAT which what.C him crowned  
 'Every king<sub>i</sub> is indebted to to the priest who crowned him<sub>i</sub>.'

(19) Každý král<sub>i</sub> je zavázán tomu knězi, jak ho\*<sub>i/j</sub> korunoval.

## Proposed solution

How-relatives (evidential) contribute conventional implicatures in the sense of Potts (2005). Their contents is not accessible to at-issue quantifiers.

(20)

Easy for **appositive readings**(HOW  $\approx$  Potts' comma):(21) [DEM car] HOW  $\lambda x$ [he found  $x$ ](22)  $\llbracket \text{HOW} \rrbracket^u = \lambda P_{\langle e^a, t^a \rangle} \lambda y_{e^a}$  [the hearer has evidence that  $P(y)$  : type  $t^c$ ](23)  $\llbracket \text{DEM car} \rrbracket \lambda y_{e^a}$  [the hearer has evidence that he found  $y$  on the web : type  $t^c$ ](24)  $\llbracket \text{DEM car} \rrbracket \bullet$  the hearer has evidence that he found  $\llbracket \text{DEM car} \rrbracket$  on the web : type  $t^c$

## Problem: Restrictiveness

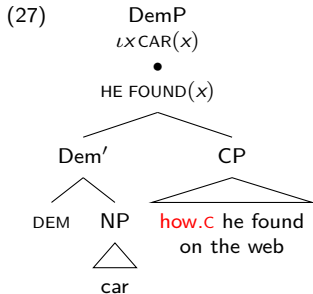
If how-relatives contribute conventional implicatures, how can they restrict the denotation of the demonstrative description?

- (25) neska je dobrej článku [...] vo Ester Janečkovej jak dělá poštu pro tebe  
today is good article about Ester Janečková how.C does post for you
- a. ✓ 'There's a nice article today about Ester Janečková, **the one** who does the TV show *Pošta pro tebe*.'
  - b. ? 'There's a nice article today about Ester Janečková, who does the TV show *Pošta pro tebe*.' [corpus]
- (26) nepochopiteľný sú pro mňa ty basketbalisti jak na tridesť metrov to  
incomprehensible are for me DEM basketball.players how.C on thirty meters it  
hodí do toho košíku  
throw into DEM basket
- a. ✓ 'what's incomprehensible to me are those basketball players who can throw it into the basket from thirty meters'
  - b. ✗ 'what's incomprehensible to me are those basketball players, who can throw it into the basket from thirty meters' [corpus]

*Notabene:* Appositive relatives typically convey new information; how-relatives very clearly rely on established knowledge.

# “Solution”

**Solution? Bite the bullet!** In light of the evidence (below), we let demonstratives take CI-meanings as arguments, counter to Potts’ logic. Potentially similar account: Gutzmann & McCready 2014.



CI-embedding DEM:

(28) [DEM car] HOW  $\lambda x$ [he found  $x$ ]

(29)  $\llbracket \text{HOW} \rrbracket^u = \lambda P_{\langle e^a, t^a \rangle} \lambda y_{e^a}$  [the hearer has evidence that  $P(y)$  : type  $t^c$ ]

(30)  $\llbracket \text{DEM} \rrbracket = \lambda X_{\langle e^a, t^a \rangle} \lambda P_{\langle e^a, t^c \rangle} [\iota x_{e^a} X(x) \bullet P(x)]$

(31)  $\llbracket \text{DEM car} \rrbracket (\lambda y_{e^a}$  [the hearer has evidence that he found  $y$  on the web : type  $t^c$ ])

(32)  $\llbracket \text{DEM car} \rrbracket \bullet$  the hearer has evidence that he found  $\llbracket \text{DEM car} \rrbracket$  on the web : type  $t^c$

# Relativization strategies in Czech

Productive strategies:

- (33) a. tu buchtu, co (ji) dělali WHAT+RES  
 DEM cake.ACC.SG.F what.C it.ACC.SG.F made.PL
- b. tu buchtu, jak (ji) dělali HOW+RES  
 DEM cake.ACC.SG.F what.C it.ACC.SG.F made.PL
- c. tu buchtu, kterou dělali WHICH  
 DEM cake.ACC.SG.F which.ACC.SG.F made.PL
- d. tu buchtu, jakou dělali WHAT(KIND)  
 DEM cake.ACC.SG.F how.ADJ.ACC.SG.F made.PL
- e. tu buchtu, již dělali REL.PRON  
 DEM cake.ACC.SG.F it.REL.ACC.SG.F made.PL  
 'the cake they made'

I'll systematically compare the what vs. how strategy (based on Šimík & Sláma in press).

## How-relatives are relatives

How- and what-relatives are sometimes interchangeable (34); they can be stacked (35) (notabene: our prediction: how-relatives should always follow what-relatives upon stacking).

(34) To je ta paní, {co / jak} ti o ní vyprávěl.  
it is DEM lady what.C how.C you about her told.SG.M  
'That's the lady that he told you about.' Karlík et al. 2012: 298

(35) Ten známý, co bydlí ve Špindlu, jak k němu jezdíme na  
DEM acquaintance what.C lives in Špindl how.C to him go.1PL on  
dovolenou, se asi bude stěhovat.  
vacation REFL probably will move.INF  
'The acquaintance that lives in Špindl, to whom we go on vacation, will  
probably move out.' Komárek et al. 1986: 96

**Further properties** (not illustrated here):

- obligatory gap
- operator movement (island sensitivity)

## Hearer-oriented component: evidential implication

How-relatives obligatorily convey a hearer-oriented evidential implication:

- (36) a. tu buchtu, co (ji) dělali  
 DEM cake.ACC.SG.F what.C it.ACC.SG.F made.PL  
 'the cake they made'
- b. tu buchtu, jak (ji) dělali  
 DEM cake.ACC.SG.F what.C it.ACC.SG.F made.PL  
 'the cake they made'

+ 'you've seen/heard that they made the cake'

*Notabene:* Probably related in one way or another to the so-called non-manner (eventive, experiential) how-clauses. Liefke 2021, 2022; Umbach et al. 2022, in press

**Consequence:** Unable to modify indefinite NPs introducing new discourse referents:

- (37) a. to sou něký lidi co jezdí autem do Saarbruckenu  
 DEM are some people what.C go car.INSTR to Saarbrücken  
 'those are some people who go to Saarbrücken by car'
- b. #to sou něký lidi jak jezdí autem do Saarbruckenu  
 DEM are some people how.C go car.INSTR to Saarbrücken  
 Intended: 'those are some people who go to Saarbrücken by car'



## Nature of the evidential implication

Evidential – not just epistemic (not sufficient to know that there is a candidate with the longest work experience):

- (38) Vybrali jsme toho kandidáta, **jak** měl nejdelší zkušenosti v oboru.  
selected.PL AUX.1PL DEM candidate how.C had.SG.M longest experience in field  
'We selected the candidate that had the longest experience in the field.'

+ 'you've witnessed/heard that there was such a candidate

vs. WHAT

Not cancelable:

- (39) Představ si, že ve Filipově pozůstalosti našli obrazy, **jak** celý  
imagine.IMP REFL C.DECL in Filip's estate found.PL painting how.C whole  
život maloval. #Nikdo netušil, že měl umělecké  
life painted.SG.M nobody.NCI NEG.had.idea C.DECL had.SG.M artistic  
sklony.

inclinations

'Imagine that they found paintings that Filip painted his whole life in his estate.

+ You witnessed/heard that he painted his whole life.

Nobody had an idea

that he had artistic inclinations.'

vs. WHAT

## Types of modified NP

determiner	how-relative		what-relative	
demonstrative	491	88.2%	1323	63.9%
bare (no determiner)	47	8.4%	399	19.3%
other non-quantificational	18	3.2%	109	5.3%
<i>nějaký</i>	1	0.2%	84	4.1%
quantificational	0	0.0%	96	4.6%
superlative+	0	0.0%	61	2.9%
total	557		2072	

**Table:** Types of NP heading the relative clause (adapted from Sláma & Šimík 2021; data from spoken corpus oral v1; Kopřivová et al. 2017)

- How-relatives headed almost exclusively by demonstratives.
- Virtually no indefinite heads.
- Absolutely no quantificational or superlative (+ 'first', 'only', etc.) heads.

## No quantifiers or superlatives+ for how

Attested corpus cases for what-relatives intuitively fail for how-relatives:

- (40) každěj teenager {co / [\*jak]} dneska ráno vstane [...] si pustí  
 every teenager what.C how.C today morning gets.up REFL turn.on  
 Evropu dvě  
 Evropa 2  
 'every teenager that gets up today in the morning turns on the Evropa 2 radio'
- (41) nejdelší šichtu {co / [\*jak]} můžeš mít tak to je do vod devíti do  
 longest shift what.C how.C can.2SG have.INF so DEM is till from nine till  
 jedenácti  
 eleven  
 'the longest shift you can have is from nine to eleven'
- (42) to je jedinej flek {co / [\*jak]} mam na ponožce  
 DEM is only.ADJ stain what.C how.C have.1SG on sock  
 'that's the only stain I have on my sock'

## Also no quantifying into the relative

Quantifier binding (repeated from above):

- (43) Každý král<sub>i</sub> je zavázán tomu knězi, {co ho<sub>i</sub> / jak ho\*<sub>i/j</sub>} korunoval.  
 every king is indebted that priest.DAT what.C him how.C him crowned  
 (Intended:) 'Every king<sub>i</sub> is indebted to to the priest who crowned him<sub>i</sub>.'

Subjunctive licensing:

- (44) Zuzka asi opravdu **nebude** ten typ {co / [\*jak]} **by**  
 Zuzka probably really NEG.will.be.3SG DEM type what.C how.C SBJV.3  
 měla jako zástupy nápadníků  
 had.SG.F like.PRT crowds suitors  
 'Zuzka will probably not be the type [of woman] who has many suitors'

For completeness – evidence that negation is the licenser of the embedded subjunctive:

- (45) Zuzka asi opravdu **bude** ten typ, co {\*by měla / má}  
 Zuzka probably really will.be.3SG DEM type what.C SBJV.3 had.SG.F has  
 zástupy nápadníků  
 crowds suitors  
 (Intended:) 'Zuzka will probably be the type [of woman] who has crowds of suitors.'

## Typical cases of how-relatives

Demonstrative head (often – in 30% of all cases – supported by additional demonstratives within the relative clause):

- (46) *tys kamarádil s tim klukem jak hrál v těch Horních Počernicích*  
you.AUX be.friends with DEM boy how.C played in DEM Horní Počernice  
'You were friends with that boy who played in Horní Počernice.'  
+ 'You've witnessed/heard that the boy played there.'

Other non-quantificational, e.g. possessive:

- (47) *Michalův strejda jak má tu cestovku [...] měl rozbitý [...] okno*  
Michal's uncle how.C has DEM travel.agency had broken window  
'Michal's uncle (the one) who has a/that travel agency, had a broken window.'  
+ 'You've witnessed/heard that his uncle has a travel agency.'

Bare NPs (often proper names, see above); sometimes kind relativization:

- (48) *to sú húsenky jak bývajú [...] dycky na meruňkách*  
it are caterpillars how.C are always on apricots  
'Those are (those) caterpillars that always are/feed on apricots.'  
+ 'You've witnessed/heard that that kind of caterpillar is always on apricots.'

# Recognitional demonstratives

**Recognitional demonstratives** appeal to hearer's prior evidence (typically reported) and can but don't need to fix the reference: Himmelmann 1996; Diessel 1999; Šimík 2016

(49) A Will you go swimming with us?

B<sub>1</sub> Ne, musím {jít k zubaři / jet do Prahy}.  
no must.1S go to dentist go to Prague  
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B<sub>2</sub> Ne, musím {jít k tomu zubaři / jet do té Prahy}.  
no must.1SG go to DEM dentist go to DEM Prague  
'No, I have to go {to the dentist / to Prague}.'

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# Unembeddability

Recognitional demonstratives always appeal to hearer's evidence.

- (50) Říkal jsem **Jirkovi**, že musím jet do **té** Prahy.  
 told AUX.1SG Jirka.DAT C must.1SG go to DEM Prague  
 'I told Jirka that I have to go to Prague.'
- a. ✓ + 'You've heard that I have to go to Prague.'  
 b. ✗ + 'Jirka has heard that I have to go to Prague.'

The implication cannot be semantically embedded:

- (51) a. Pochybuju, že je u zubaře.  
 doubt.1SG C is at dentist  
 'I doubt that she's at the dentist.'
- b. Pochybuju, že je u **toho** zubaře.  
 doubt.1SG C is at DEM dentist  
 'I doubt that she's at the dentist.'  
 + '(\*I doubt) He was supposed to be at the dentist.'

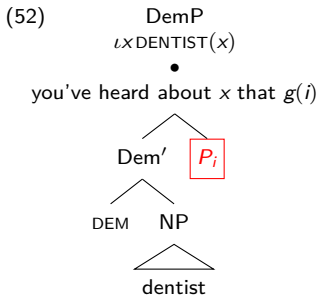
Also – they are evidential; epistemic knowledge not sufficient.

# Recognitional demonstratives and how-relatives

## Recognitional demonstratives and how-relatives

- contribute a hearer-oriented evidential implication
- which is unembeddable

**Hypothesis:** Recognitional demonstratives contain a silent how-relative:



CI-embedding DEM:

(53) I doubt that John is at DEM dentist.

(54)  $[[$ DEM dentist $]]$  • the hearer has evidence about the/a dentist that John was supposed to go to the/a dentist  
: type  $t^c$

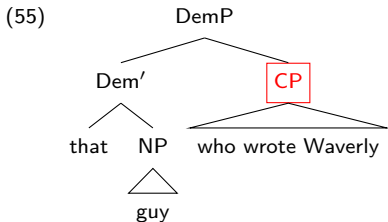


# Open issues

- How-relatives are restrictive; they satisfy Nowak's constraint of narrowing down the extension of the head noun
- The evidential implication in recognitional demonstratives is not restrictive. Why?
- Recognitional demonstratives exhibit deferred ostension (Nunberg 1993; Elbourne 2008; Šimík 2016): by “pointing” to the NP (*dentist*), they denote some fact/proposition *about* the NP.
- Is this a way out of triviality, i.e., out of restricting an already unique referent (cf. Schlenker 2005; Nowak 2021)?

# Summary

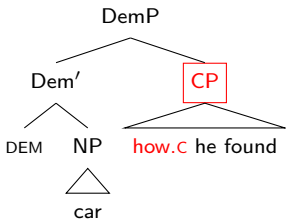
- Demonstratives can take relative clauses as their “second argument”.



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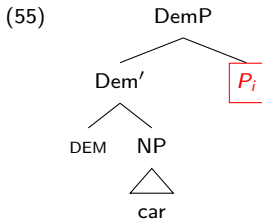
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(55)



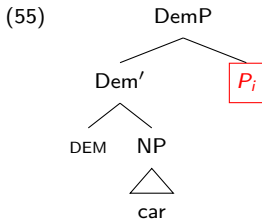
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- Recognitional demonstratives overlap in properties with how-relatives;  
hypothesis: second argument filled by a silent how-relative



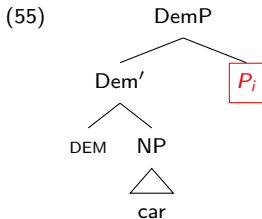
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Thank you!

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