

**The semantics of the Czech demonstrative *ten***

I propose a semantic analysis of the demonstrative *ten* in Czech, in which *ten* (i) is a type-flexible and type-preserving operator, (ii) does not involve the presuppositional type-shifter  $\iota$ , and (iii) introduces two variables: an index  $i$  that “points at” some entity in the discourse (or extra-linguistic reality) and a relational variable  $R_j$ , whose value determines the relation between  $i$  and the denotation of the NP modified by the demonstrative (henceforth demonstrative NP).

**Core evidence** *Ten* (glossed as dem) productively modifies NPs without affecting their referential status (e.g., Berger 1993). Readings (a) of (1) and (2) show that the canonical referential reading (of *Mirkem* in (1)) and the canonical predicative reading (of *právník* ‘lawyer’ in (2)) can remain unaffected by the modification by a demonstrative. Readings (b) represent the “expected” case, where the demonstrative appears to shift a predicative nominal (coerced and typically modified by a relative clause in (1)) to a referential one. The existence of readings (a) shows (i) that *ten* can modify both referential (type  $e$ ) and predicative (type  $\langle e, t \rangle$ ) expressions and (ii) that *ten* need not affect the semantic type of the NP it modifies.

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|-----|----------|-----------------------------------|---------|-----------|-----------|-----|-------|----|------------------------|-----|----------|--|
| (1) | S        | tím                               | Mirkem  | jsem      | nemluvil. | (2) | Karel | je | vlastně                | ten | právník. |  |
|     | with dem | Mirek                             | aux.lsg | neg.spoke |           |     | Karel | is | part                   | dem | lawyer   |  |
|     | a.       | ‘I didn’t speak with Mirek.’      |         |           |           |     |       | a. | ‘Karel is a lawyer.’   |     |          |  |
|     | b.       | ‘I didn’t speak with that Mirek.’ |         |           |           |     |       | b. | ‘Karel is the lawyer.’ |     |          |  |

**Proposal** The facts above could indicate either that *ten* is (multiply) ambiguous or that it is underspecified. In line with the latter option, I propose to generalize to the worst case and take readings (a) to be, in some sense, primary. In particular, I propose that the meaning of *ten* (unlike its English kin *this/that*; see Elbourne 2008) does not involve the presuppositional type-shifter  $\iota$  and preserves the type of its NP argument. Following Elbourne (2008), I propose that *ten* takes three arguments, as illustrated in (3a): an index  $i$  of a variable type  $\alpha$  (values include type  $e$  and type  $\langle s, t \rangle$ ), a relational variable  $R_j$  of a variable type  $\langle \alpha, \langle \beta, t \rangle \rangle$ , and an NP of a variable type  $\beta$  (values include  $e$  and  $\langle e, t \rangle$ ). The corresponding denotation of *ten* is in (3b). After all arguments are applied, the value of the function is  $\llbracket \text{NP} \rrbracket$ , provided that  $g(i)$  and  $\llbracket \text{NP} \rrbracket$  are related by  $g(j)$ , (3c). (As in Elbourne 2008, the meaning will eventually have to be fully intensionalized, a complication I put aside for ease of presentation.)

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| (3) | a. |  | b. | $\llbracket \text{ten} \rrbracket^g = \lambda x_\alpha. \lambda f_{\langle \alpha, \langle \beta, t \rangle \rangle}. \lambda h_\beta : f(x)(h) = 1. h$    |
|     |    |  | c. | $\llbracket (3a) \rrbracket^g = \llbracket \text{NP} \rrbracket$ if $\langle g(i), \llbracket \text{NP} \rrbracket \rangle \in g(j)$ , undefined otherwise |

The other piece in the puzzle is the idea that bare NPs in Slavic are ambivalent between various semantic types, including the referential type  $e$  and the predicative type  $\langle e, t \rangle$  (Chierchia 1998, Filip 1999, Dayal 2004, a.o.). I propose that this generalizes to NPs modified by demonstratives; i.e., the NP argument of a demonstrative in a structure like (3a) can either be of type  $e$  or  $\langle e, t \rangle$ .

**Sample analysis** I illustrate the proposal by analyzing the demonstrative NP *ten právník* ‘dem lawyer’ in (2). In (2a), *právník* is interpreted predicatively, (4a). The reading (2a) is typically used in a situation where the speaker wants to remind the hearer that Karel’s being a lawyer was already spoken about. This reminder is felt to be the contribution of the demonstrative (possibly jointly with some discourse particles) and is modeled here as a presupposition. The relevant reading is naturally captured by giving the index  $i$  the value of some particular discourse salient proposition about Karel (say, ‘Karel is a lawyer’) and the relational variable  $R_j$  the value  $\lambda p_{\langle s, t \rangle}. \lambda P_{\langle e, t \rangle}. 1$  iff  $P$  is the comment of  $p$ . After the arguments are applied, we get truth if  $\llbracket \text{NP} \rrbracket$  (‘is a lawyer’) is the comment of the proposition about Karel ( $g(i)$ ).

- (4) Reading (2a)
- a.  $[[\text{právník}]]^g = \lambda x.\text{lawyer}'(x)$
  - b.  $[[[R_j [i \text{ ten}]] \text{právník}]]^g = \lambda x.\text{lawyer}'(x)$  if  $g(i)$  (some salient proposition about Karel) and  $[[\text{právník}]]$  (being a lawyer) are related by  $g(j)$  (being a lawyer is the comment of the proposition about Karel), undefined otherwise

In (2b), *právník* is shifted (by a covert application of  $\iota$ ) to a referential expression, meaning essentially ‘the lawyer’. The demonstrative is felt to contribute the presupposition that the referent was mentioned before, which corresponds to the canonical anaphoric reading of definite/demonstrative NPs. In such a case, the value of  $i$  is the lawyer that was mentioned and the value of  $R_j$  is the identity relation.

- (5) Reading (2b)
- a.  $[[\text{právník}]]^g = \iota x.\text{lawyer}'(x)$
  - b.  $[[[R_j [i \text{ ten}]] \text{právník}]]^g = \iota x.\text{lawyer}'(x)$  if  $g(i)$  (some discourse salient individual) and  $[[\text{právník}]]$  (the lawyer) are related by  $g(j)$  (identity), undefined otherwise

**The issue of optionality** The baseline prediction of the proposal is that the demonstrative *ten* in Czech will always be optional (the core meaning is determined even before they apply), which corresponds to existing observations. Yet, by contributing certain presuppositions, the demonstrative can steer the hearer’s attention towards preferring one reading over another. Below is an illustrative example adapted from Zimová (1995) (via Berger 1993:120). Sentence (6) introduces a particular devil into the discourse. Under the most salient reading of the continuation (6a), *ten čert* ‘dem devil’ picks up this referent, which follows from the present proposal; in (6b), on the other hand, the corresponding bare NP is interpreted generically, a reading made salient by the adverb and the imperfective aspect. If such cues are missing, however, as in (6c), a bare NP can be interpreted anaphorically.

- (6) Biskupa odnesl čert.  
 bishop.acc carry.away devil.nom  
 ‘A devil carried away the bishop.’
- a. Ten čert vždycky odnáší hříšníky komínem.  
 dem devil always carries.away sinners chimney.instr  
 ‘This devil always carries away sinners via a chimney.’
  - b. Čert vždycky odnáší hříšníky komínem.  
 devil always carries.away sinners chimney.instr  
 ‘A devil always carries away sinners via a chimney.’
  - c. Čert ho odnesl rychle a nečekaně.  
 devil him carried.away quickly and unexpectedly  
 ‘The devil carried him away quickly and unexpectedly.’

## References

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