

## Summary

Bound plural pronouns allow (i) semantically singular readings and (ii) partial binding, which pose interesting compositional problems regarding person and number features [1–4]. I propose an account where indices on pronouns are made structurally complex. In particular, I claim that indices carry (i) person features, (ii) number features, and (iii) information regarding how the plurality should be broken down.

## Semantically Singular Plural Pronouns

- Semantically singular plural pronouns [1–3, 5]
  - (1) a. #**They** are the smartest student.  
b. The first-years<sup>I</sup> (all) think that **they**<sup>i</sup> are the smartest student.
- The antecedent doesn't have to c-command the pronoun [6].
  - (2) a. #**They** would win the election.  
b. The people who voted for [John and Bill]<sup>I</sup> thought that **they**<sup>i</sup> would win the election.
    - (i) The people who voted for John thought John would win the election.
    - (ii) The people who voted for Bill thought Bill would win the election.
- The person feature of the antecedent is reflected on the plural pronoun.
  - (3) a. We<sup>I</sup> all think that **we**<sup>i</sup> are the smartest student.  
b. The people who voted for [John and me]<sup>I</sup> thought that **we**<sup>i</sup> would win the election.
    - (i) The people who voted for John thought John would win
    - (ii) The people who voted for me thought I would win

## Partial Binding

- Plural pronouns can be bound by multiple quantifiers.
  - (4) Each of the students<sup>i</sup> thinks that each of the professors<sup>j</sup> remembers **their**<sup>i⊕j</sup> first meeting.
- Part of  $i \oplus j$  can be bound by a plural noun phrase.
  - (5) The first-years<sup>I</sup> think that each of the professors<sup>j</sup> remembers **their**<sup>i⊕j</sup> first meeting.
- Again, the person features of the antecedents matter.
  - (6) a. Each of the professors<sup>i</sup> told me<sup>j</sup> that **our**<sup>i⊕j</sup> meeting was fun.  
b. Most of the professors<sup>I</sup> told me<sup>j</sup> that **our**<sup>i⊕j</sup> meeting was fun.
  - (7) a. We<sup>I</sup> all think that each of the professors<sup>j</sup> remembers **our**<sup>i⊕j</sup> first meeting.  
b. The people who voted for [John and me]<sup>I</sup> asked Mary<sup>j</sup> if **we**<sup>i⊕j</sup> were a couple.

## References

- [1] Rullmann (2003) Bound-variable pronouns and the semantics of number. In *WECOL 2002*.
- [2] Rullmann (2004) First and second person pronouns as bound variables. *LI*, 35.
- [3] Heim (2008) Features on bound pronouns. In *Phi Theory*. OUP.
- [4] Kratzer (2009) Making a pronoun: fake indexicals as windows into the properties of pronouns. *LI*, 40.
- [5] Sauerland (2003) A new semantics for number. In *SALT 13*.
- [6] Dimitriadis (2000) *Beyond Identity*. Ph.D. dissertation, UPenn.

## Previous Accounts

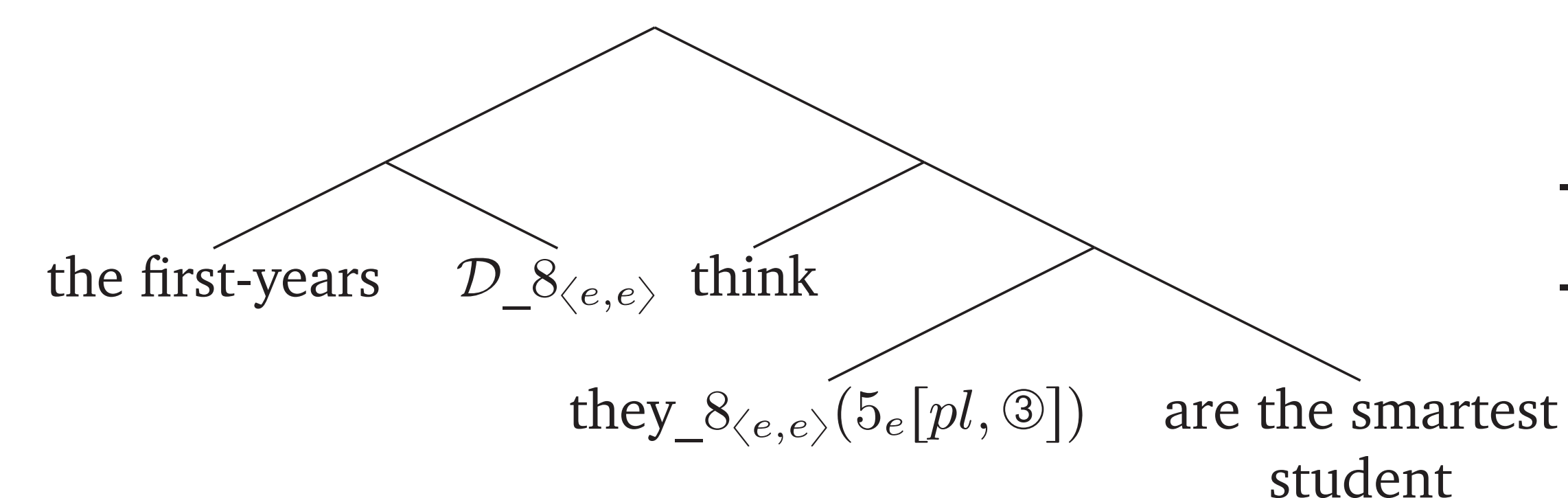
- [1, 2] pursue a semantic account. But person features are problematic.
- [3] makes use of 'minimal pronouns' and Feature Transmission under semantic binding.
- Both accounts need an additional mechanism for (3b), as they rely on c-command (also [4]).

## Structured Indices

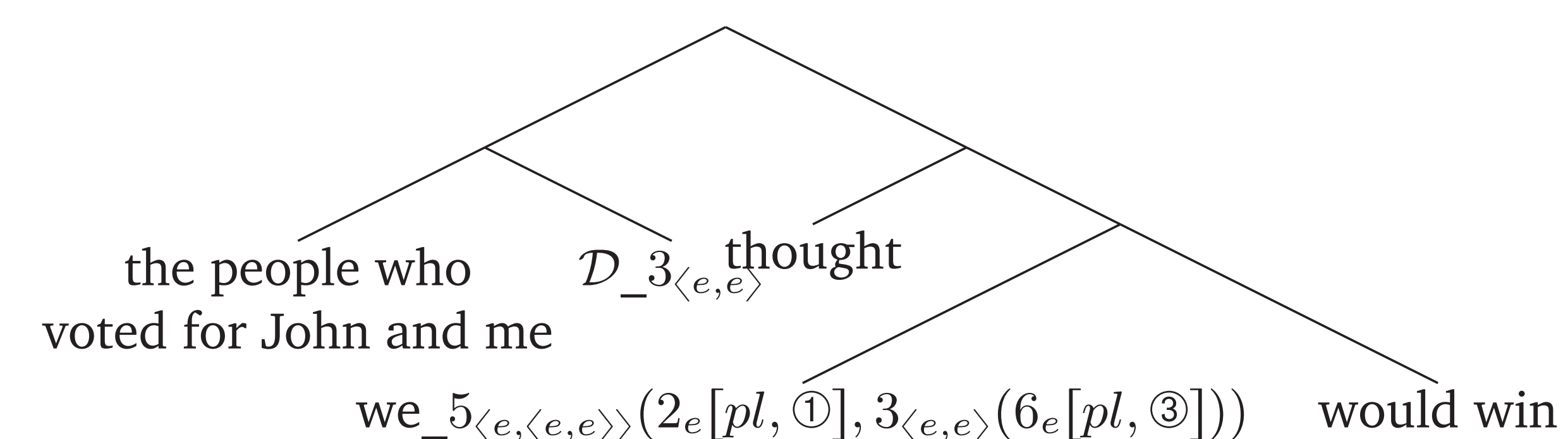
- **Claim 1:** Pronouns carry indices with features:  $i_e[\text{num}, \text{per}]$ 
  - Numerical index feature:  $i \in \mathbb{N}$  E.g.  $\llbracket \text{he}_{5_e[sg, \textcircled{3}]} \rrbracket^g = g(5_e[sg, \textcircled{3}])$
  - Number feature:  $\text{num} \in \{sg, pl\}$   $\llbracket \text{we}_{8_e[pl, \textcircled{1}]} \rrbracket^g = g(8_e[pl, \textcircled{1}])$
  - Person feature:  $\text{per} \in \{\textcircled{1}, \textcircled{2}, \textcircled{3}\}$
- Global constraints on  $g$ :  
 $g$  is admissible in evaluating an utterance of sentence  $S$  in context  $c = \langle a_c, h_c \rangle$ , only if:
  - $g(i_e[sg, \textcircled{1}]) = a_c$   $g(i_e[pl, \textcircled{1}]) \supseteq a_c$
  - $g(i_e[sg, \textcircled{2}]) = h_c$   $g(i_e[pl, \textcircled{2}]) \supseteq h_c$
  - $g(i_e[sg, \textcircled{3}]) \neq a_c \wedge g(i_e[sg, \textcircled{3}]) \neq h_c$   $g(i_e[pl, \textcircled{3}]) \supseteq a_c \wedge g(i_e[pl, \textcircled{3}]) \supseteq h_c$
- **Claim 2:** A pronoun may have a set of indices [1–3]:  $\llbracket \text{pro}_I \rrbracket^g = \bigoplus_{i \in I} g(i)$
- **Claim 3:** Indices may refer to (Skolemized) choice functions [6].
  - (8) A function  $f$  is a **Skolemized choice function** if for any plurality  $X$  and any sequence of  $n$  individuals  $\vec{y}$ ,  $f(X, \vec{y}) \sqsubseteq X$ .  
E.g.  $\llbracket \text{they}_{8_{\langle e, e \rangle}}(1_e[pl, \textcircled{3}]) \rrbracket^g = [g(8_{\langle e, e \rangle})](g(1_e[pl, \textcircled{3}]))$   
 $\llbracket \text{they}_{2_{\langle e, \langle e, e \rangle \rangle}}(9_e[pl, \textcircled{3}], 5_{\langle e, e \rangle}(3[pl, \textcircled{3}])) \rrbracket^g = [g(2_{\langle e, \langle e, e \rangle \rangle})](g(9_e), [g(5_{\langle e, e \rangle})](g(3_e[pl, \textcircled{3}])))$
  - (9)  $\llbracket \mathcal{D}_{i_{\langle e, e \rangle}} \text{XP} \rrbracket^g = \lambda X_e. \forall f \in \text{RelCF}(X) [\llbracket \text{XP} \rrbracket^{g[i_{\langle e, e \rangle} \mapsto f]}(f(X))]$   
where  $\text{RelCF}(X) = \{f \mid \text{dom}(f) = X \wedge f(X) \sqsubseteq_a X\}$

- Semantically singular plural pronouns reflect the 'range' of values.

### Examples



- $g(5_e[pl, \textcircled{3}]) = \text{the first years}$
- The pronoun does not have to be semantically bound by the antecedent



- $g(2_e[pl, \textcircled{1}]) = j \oplus a_c$
- $g(6_e[pl, \textcircled{3}]) = \text{the people who voted for John and me}$
- $[g(5_{\langle e, \langle e, e \rangle \rangle})](j \oplus a_c, x) = \text{the candidate } x \text{ voted for}$

- Spell-out rules:
  - first person if any of its index has  $[\textcircled{1}]$   $g(i_e[pl, \textcircled{1}]) = a_c$
  - second person if none of its indices has  $[\textcircled{1}]$  and at least one of its indices has  $[\textcircled{2}]$   $g(i_e[pl, \textcircled{2}]) = h_c$
  - third person otherwise  $g(i_e[pl, \textcircled{3}]) \supseteq a_c \wedge g(i_e[pl, \textcircled{3}]) \supseteq h_c$
- All features are semantically and morphologically interpreted (contra [3, 4])