Agreement in nominal ellipsis: Consequences for the Agreement Hierarchy and the direction of Agree

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Why are there so many versions of Agree?

"Standard" Agree

| Chomsky (2000/2001)	Agreement?
Downward probing	✗ (Reverse Agree)
Upward valuation	✗ (Reverse Agree)
Both probe and goal must be active	✗ (several)
iF: val, uF: __, *others	✗ (several)
Movement: Agree & EPP	✗ (in some only Agree, no EPP)
Case as a reflex of φ-agreement	✗ (no relation or opposite relation)
Case as an abstract DP — T/v Agree dependency	✗ (dependent case)

What is Agree supposed to cover?

Agree employment

- ❖ Case and agreement, condition for movement (Chomsky 2000, 2001)

- ❖ Case, verbal morphology, movement, selection (Pesetsky & Torrego 2001, 2004, 2006, 2007)

- ❖ Control (Landau 1999 et seq.)

- ❖ Binding (Reuland 2001, 2005, 2011, Fischer 2004, 2006, Heinat 2006, Hicks 2009, Kratzer 2009, Rooryck and Vanden Wyngaerd 2011)

- ❖ Only / mostly agreement (Preminger 2013, Preminger and Polinsky 2015)

- ❖ General condition on syntactic dependencies (Adger 2003, Wurmbrand 2012 - 2016)

Case & agreement

❖ Several languages allow constructions in which a Case-marked DP occurs below the head assumed to license the DP's Case, and it can be shown that the DP never occurs in a position where it c-commands that Case assigner (German, Icelandic—Wurmbrand 2006; Turkish—Şener 2008, Dholuo—Cable 2012)

❖ Similarly, Verb/T-Agreement can be shown to occur in contexts in which the trigger never c-commands the target (Preminger 2013, Preminger and Polinsky 2015)

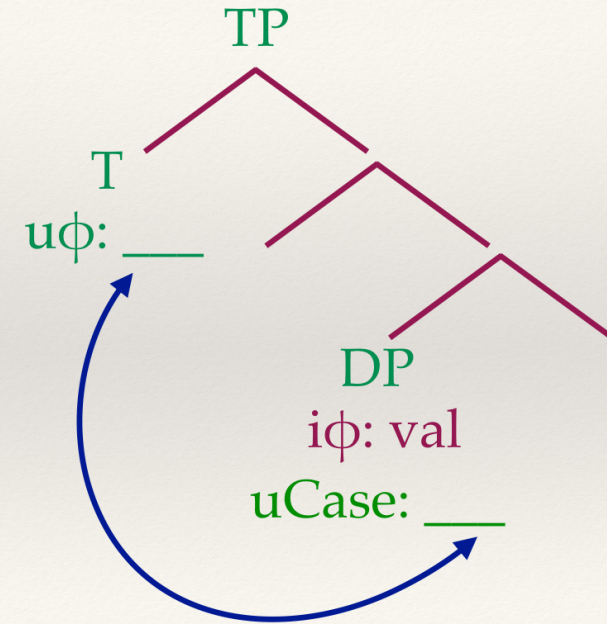# Case & agreement
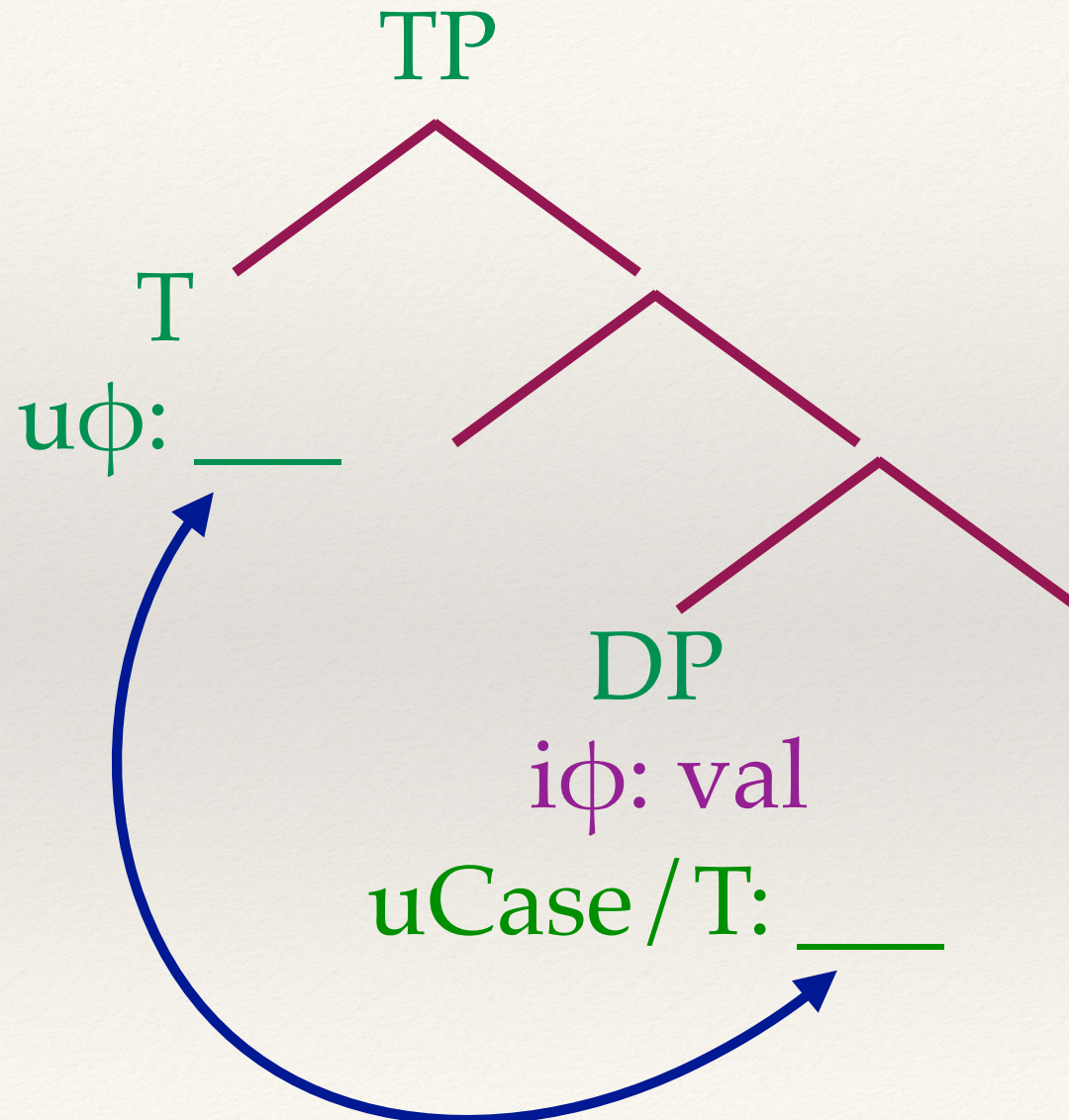
Case & agreement

The following can then not ALL be true:

❖ Agree is unidirectional (either upward or downward valuation)

❖ NOM Case: valuation of DP's T/Case-feature under Agree with T

❖ Predicate agreement: valuation of T's ϕ-features under Agree with a DP

TP
T
uϕ: ____
DP
iϕ: val
uCase: ____

Case & agreement

	Option 1 (Chomsky)	Option 2 (B&Z)	Option 3 (Baker)	Option 4 (Preminger)	Option 5 (SW)
Agree	upward valuation	downward valuation	bi-directional	upward valuation	downward valuation
Agreement (T)	✓Agree	✗Agree Reflex checking	✓Agree	✓Agree	✗Agree Post-syntactic
NOM	✗Agree Reflex checking	✓Agree	✓Agree (possible)	✗Agree Dependent case	✓Agree

Agree employed (SW)

	Valuation direction
Case	downward
Control	downward
Binding	downward
wh-movement (wh-in-situ, DSQ generalization)	downward
Selection	downward
TMA copying	downward
Vacuous finite tense	downward
Restructuring, voice matching	downward
NPI, NC licensing, Sequence of Tense (Zeijlstra 2012)	downward

Agree(ment)

	Valuation
Case	downward
Control	downward
Binding	downward
wh-movement (wh-in-situ, DSQ generalization)	downward
Selection	downward
TMA copying	downward
Vacuous finite tense	downward
Restructuring, voice matching	downward
NPI, NC licensing, Sequence of Tense	downward
φ-Agreement	up or down
~ Long-distance agreement (Preminger & Polinsky 2015)	upward*
~ Full vs. partial agreement (Wurmbrand & Haddad 2016)	downward

Why is φ-agreement special?

Is it?

- ❖ Morphological agreement: upward or downward

- ❖ Semantic agreement: only downward

This talk

- ❖ Semantic agreement (old and new)

- ❖ Dual feature system to derive the bidirectional nature of morphological agreement

- ❖ Uniform syntactic Agree operation

Semantic agreement

Collective N agreement

❖ Certain English varieties allow agreement with semantic plural of collective nouns (Elbourne 1999, den Dikken 2001, Sauerland 2004, Smith 2012, 2015)

(1) a. The faculty nominated each other for Nobel Prizes.

   b. A committee are meeting in there.

Restriction on semantic agreement

❖ Plural agreement is impossible in the there construction (Elbourne 1999)

(2)   a.   There **is** a committee meeting in there.

   b.   *There **are** a committee meeting in there.

Restriction on semantic agreement

❖ Reconstruction is blocked in semantic agreement contexts (Elbourne 1999, Smith 2015: 121, (190))

(3) a. A northern team **is** likely to be in the final.
✓likely » ∃

b. A northern team **are** likely to be in the final.
*likely » ∃

Semantic agreement

❖ Why is semantic agreement impossible when the subject is (interpreted) below T?

TP

{DP$_{\text{SEM.PL}}$}

T′

T

uϕ: ___

vP

{DP$_{\text{SEM.PL}}$}
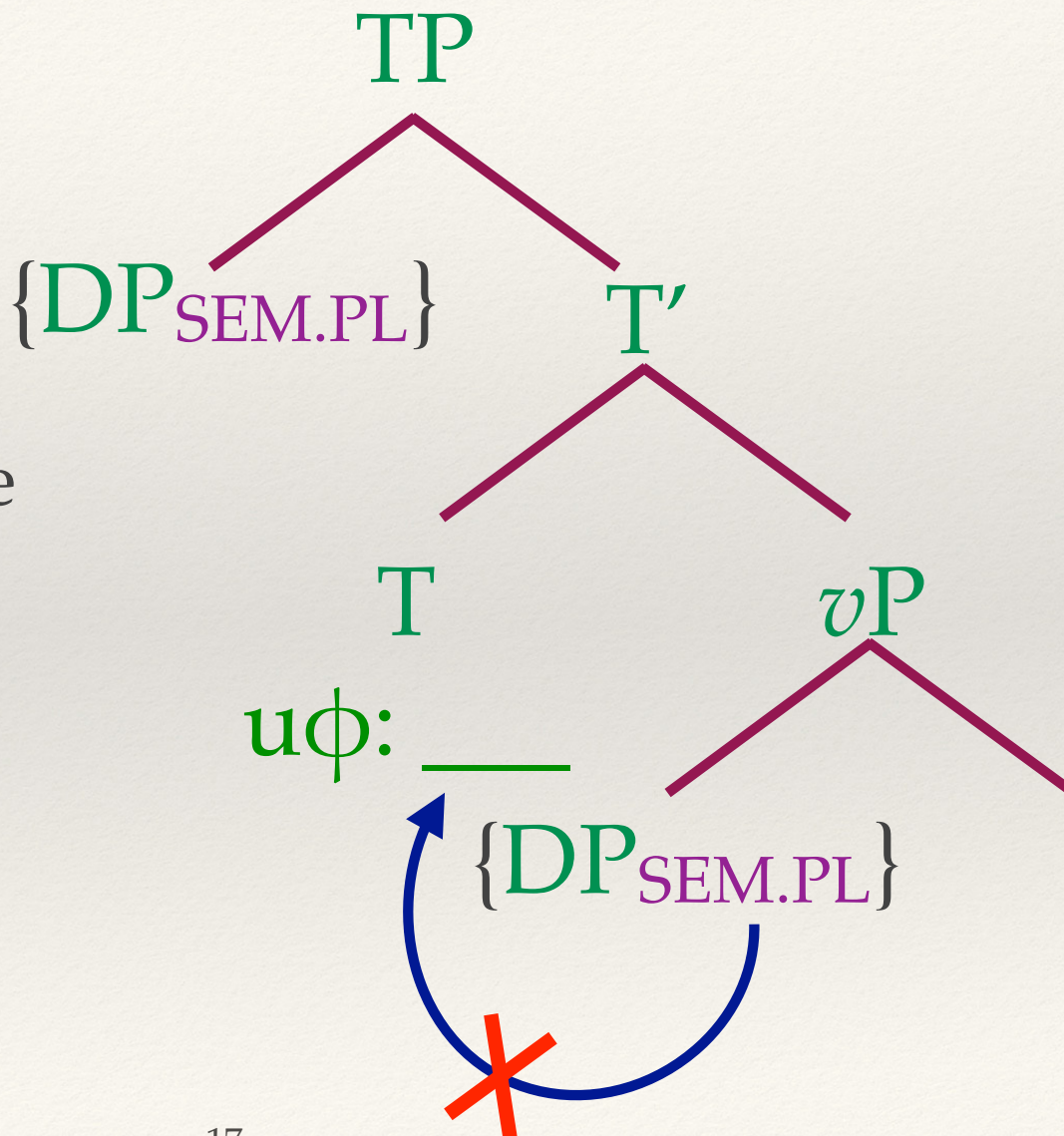
Dual feature system

❖ NPs/DPs have two sets of features

❖ Dual ϕ-feature system: formal **u**ϕ (relevant for morphology) and semantic **i**ϕ (relevant for interpretation)

❖ Pollard and Sag 1994, Wechsler and Zlatić 2000, 2003, Wurmbrand 2012, Smith 2012, 2015

General:

X(P)
F: *val*

Y(P)
F: ___
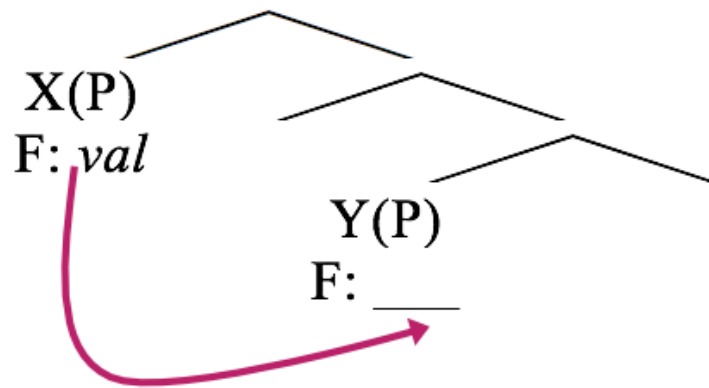
Downward valuation

Case:

T   vP

DP   v'
T/Case: __
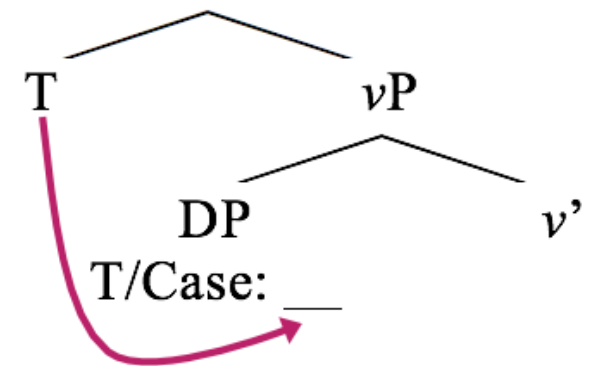
Case licensing via T

[simplified; see Wurmbrand 2014]

A feature F: _ on α is valued by a feature F: val on β, iff β c-commands α.

Reverse Agree

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Agree: uφ

TP
DP — T′
the committee
uφ: SG, iφ: PL

T — AspP
be.pres
uφ: ____   meeting

Agree: uφ

TP
  DP
    the committee
    uφ: SG, iφ: PL
  T'
    T
      is
      uφ: SG
    AspP
      meeting

Agree: iɸ

TP
  DP   T′
the committee
uɸ: SG, iɸ: PL   T   AspP
                be.pres   meeting
                uɸ: ___

Agree: iϕ

TP
├── DP
│   the committee
│   uϕ: SG, iϕ: PL
└── T'
    ├── T
    │   are
    │   uϕ: PL
    └── AspP
        meeting
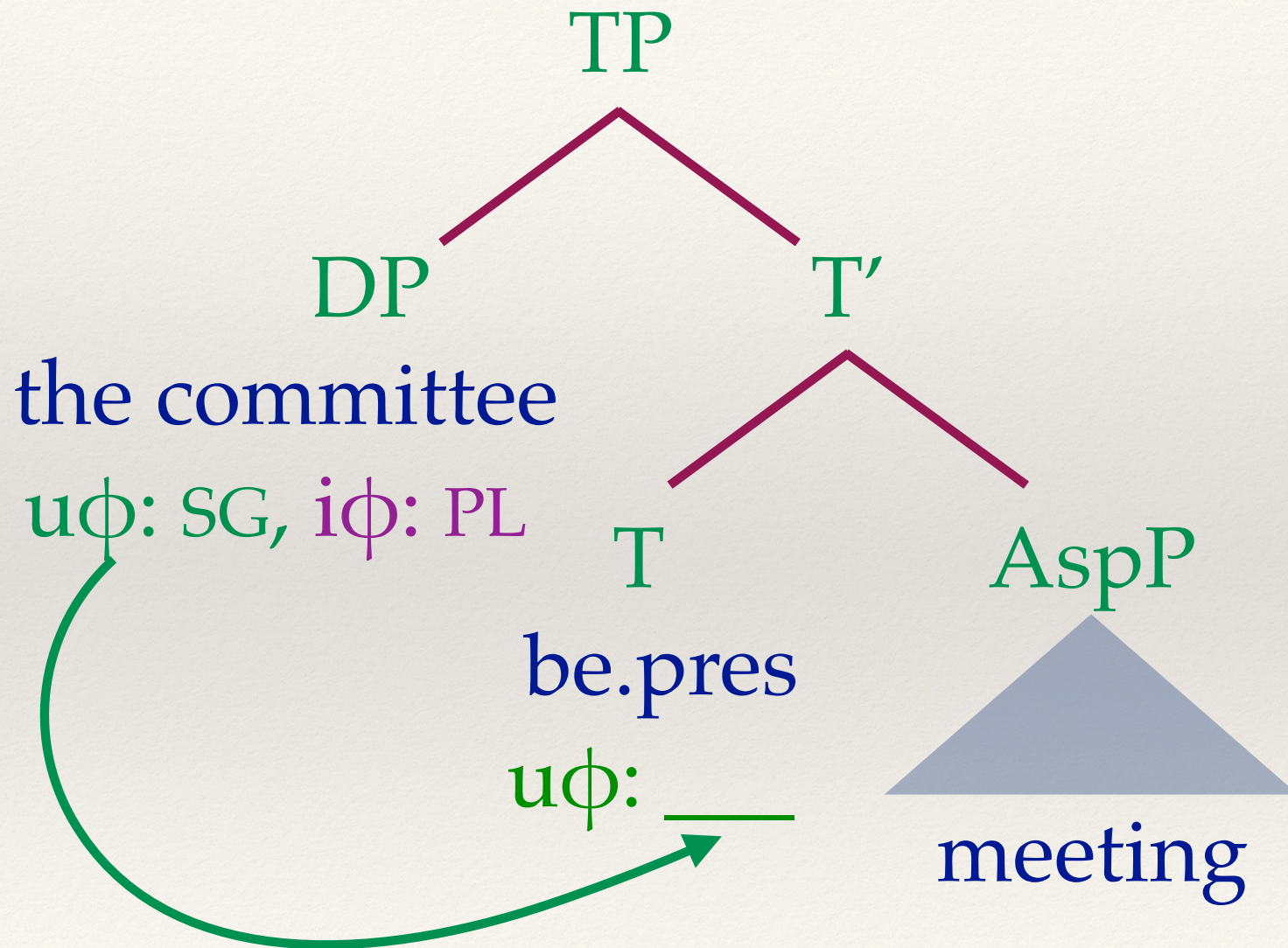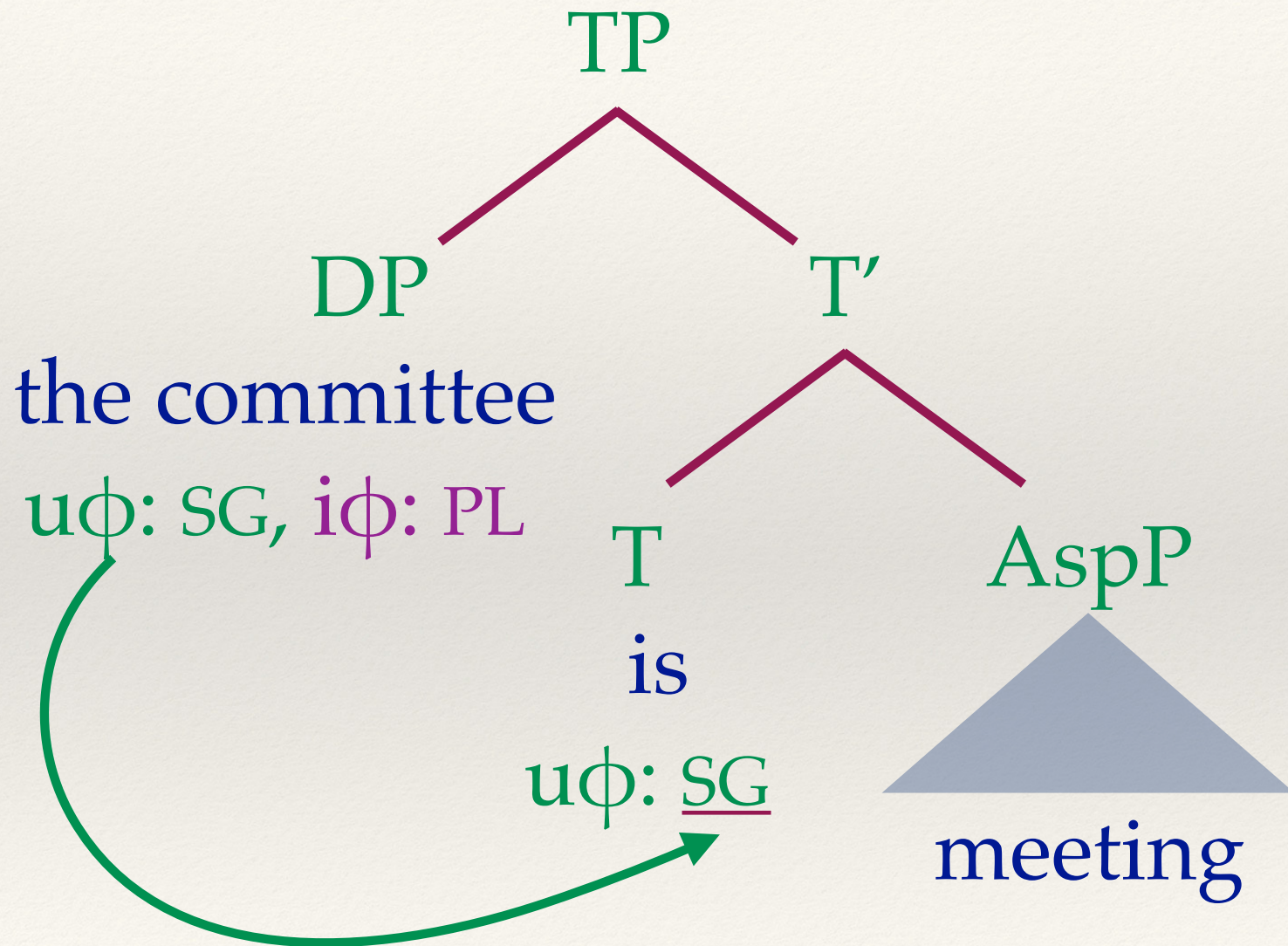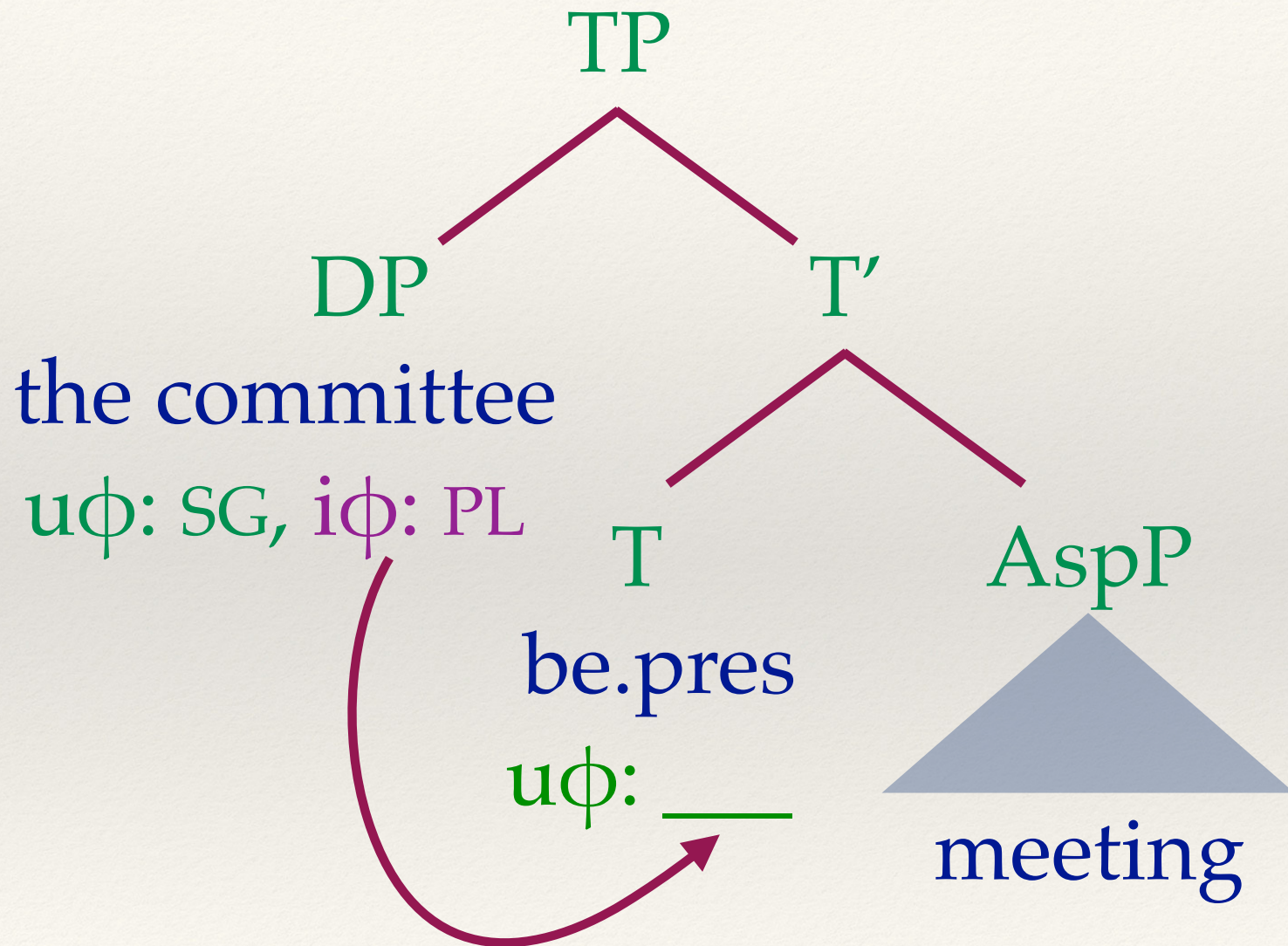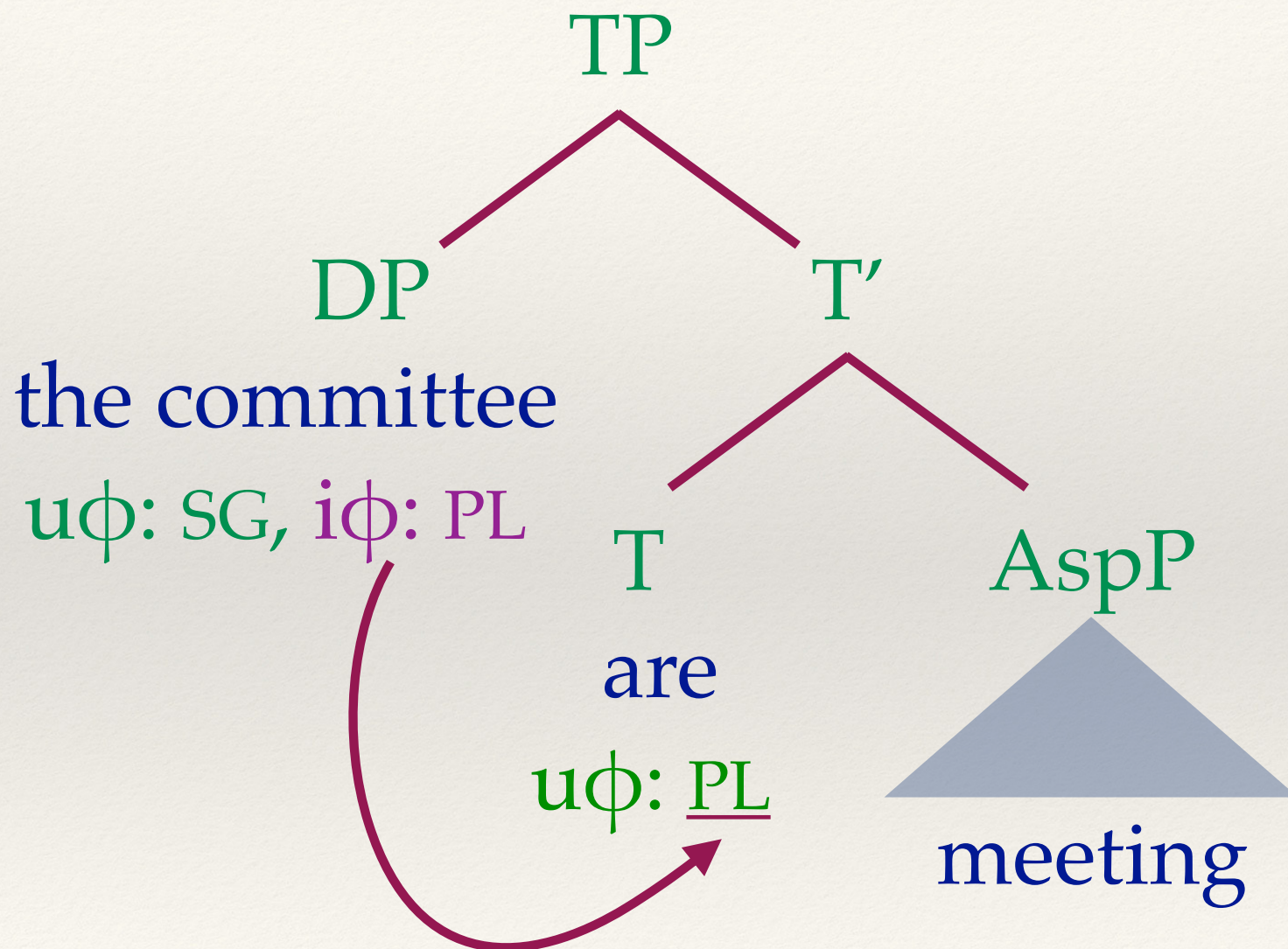
Spell Out: Feature splitting
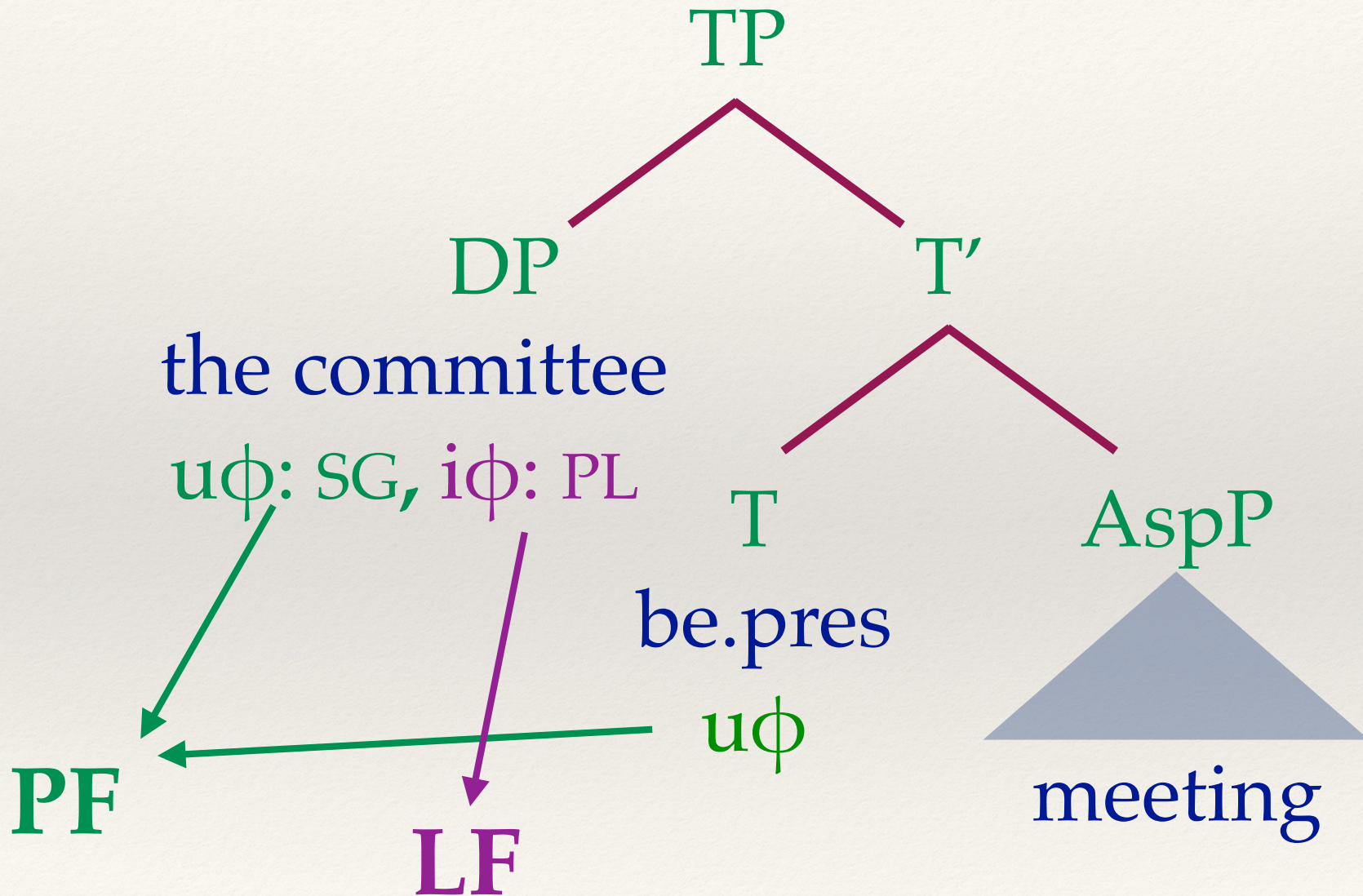
PF: only formal agreement

DP   T

the committee   is   meeting

uϕ: SG   uϕ

the / this / that / one committee

*these / *those / *2 committee

LF: semantic phenomena

TP

DP   T′

the committee
iφ: PL

T   AspP

gathered, dispersed
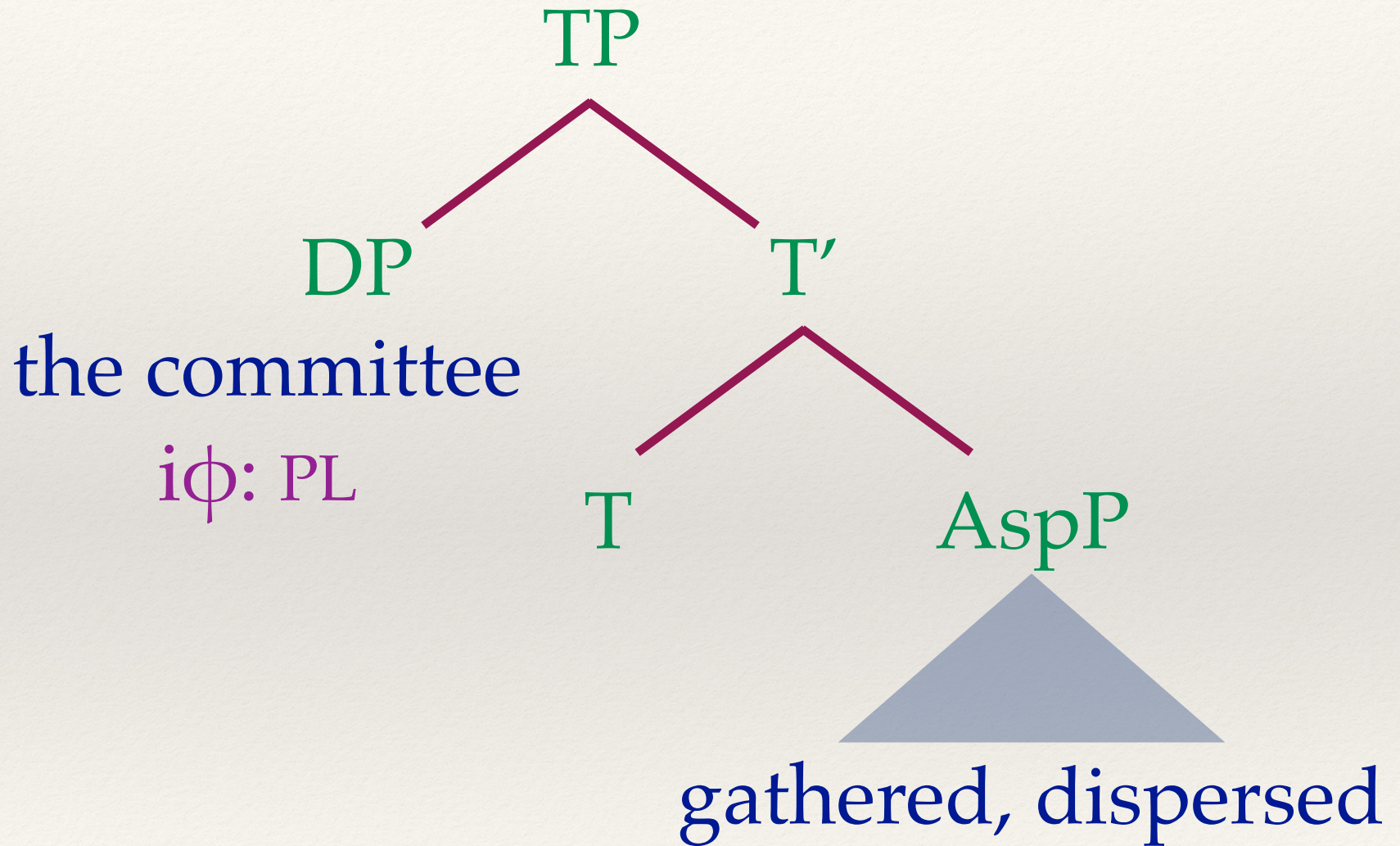
Types of agreement

Lexicon, numeration

Syntax:
uφ or iφ

PF: only uφ   **LF: only iφ**

Conjunct agreement

(4) A pirate and a knight ***seems**/**seem** to be at the party.

(5) Essentially there **seems**/**seem** to be five compelling issues that…

(6) There **seems**/**?*seem** to be a pirate and a knight at the party.

Syntax

❖ A pirate and a knight *__seems__/__seem__ to be at the party.

❖ Agree applies (when possible it is necessary)
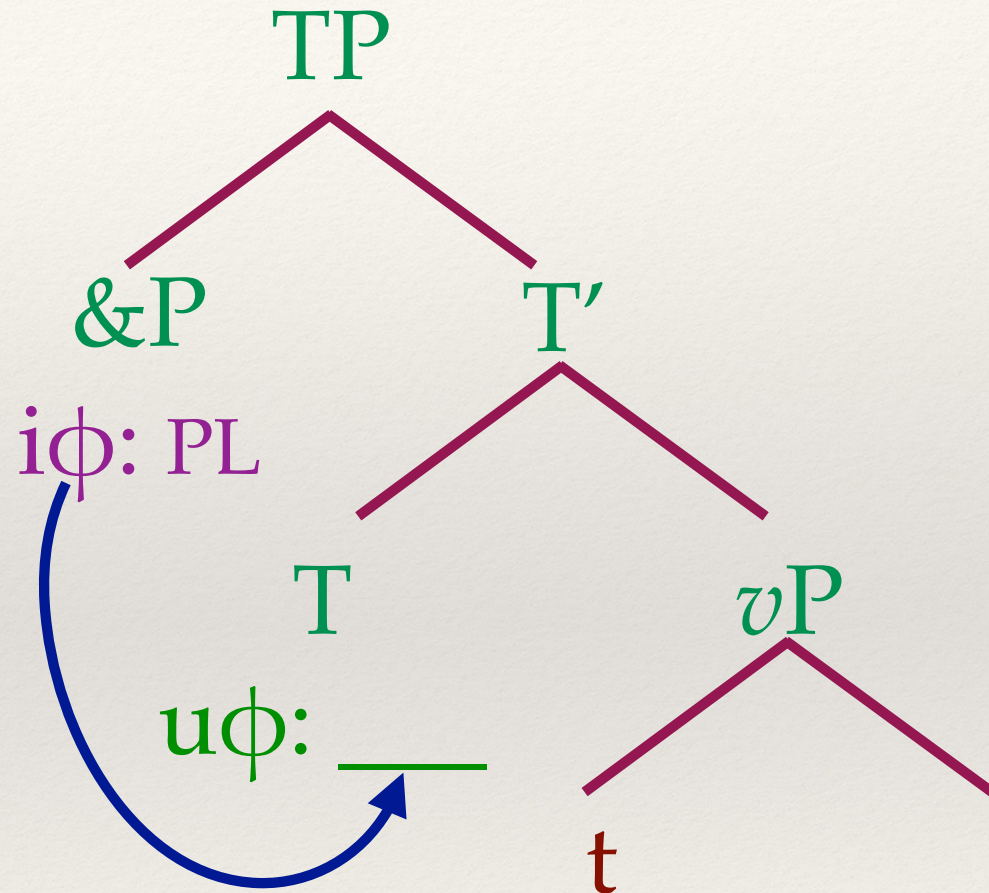
Syntax

- ❖ Essentially there **seems**/**seem** to be five compelling issues that…

- ❖ Agree cannot apply

T′

T vP

uϕ: ___

DP

uϕ/iϕ: PL

PF: Left/right linearity

T ———————————————— DP

seem   five compelling issues

uφ: PL   uφ: PL

or:

seems

uφ: default

Essentially there **seems** / **seem** to be five compelling issues that…
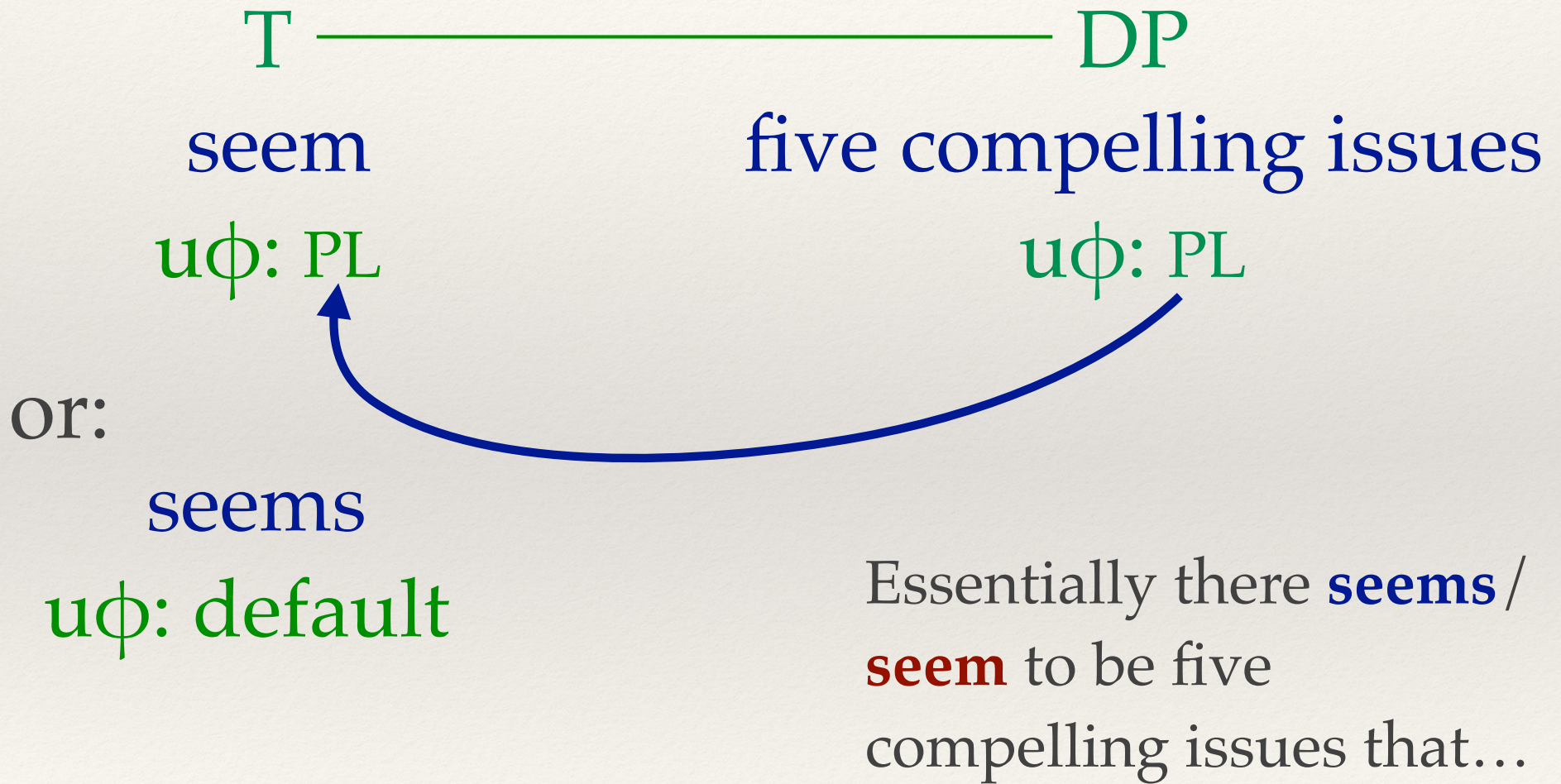
Syntax

- There **seems**/**?*seem** to be a pirate and a knight at the party.

- Agree cannot apply

T′

T

vP

uφ: ___

&P iφ: PL

DP

φ: SG

&

DP
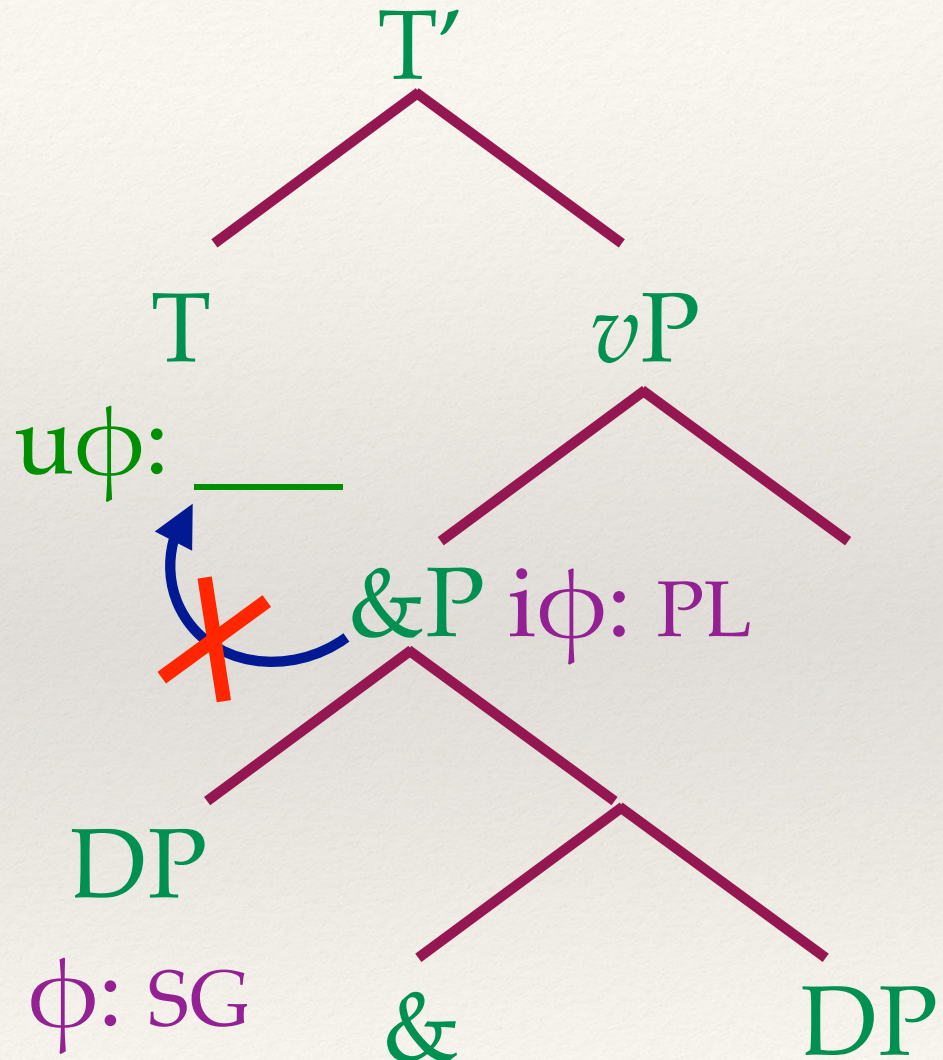
PF: first conjunct or default

T ——— DP ——— & ——— DP

seems   a pirate   and   a knight

uφ   uφ: SG   uφ: SG
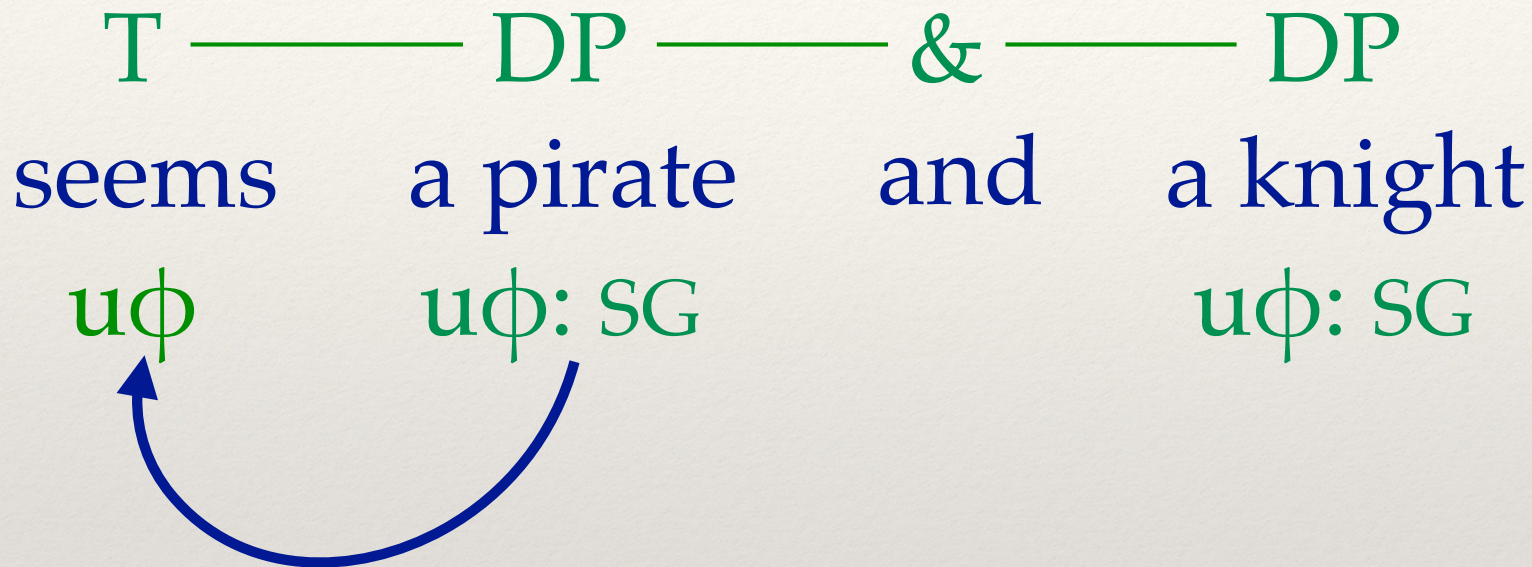
There **seems**/**?*seem** to be a pirate and a knight at the party.

Interim summary

(2)   *There **are** a committee meeting in there.

(5)   Essentially there **seems**/**seem** to be five compelling issues that…

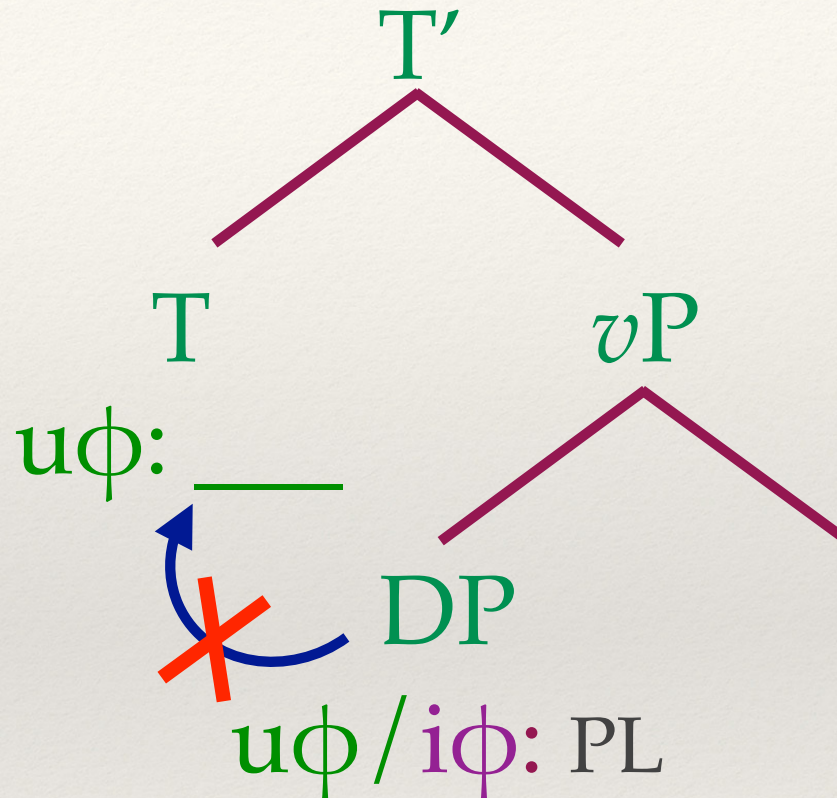**(6)**   There **seems**/**?*seem** to be a pirate and a knight at the party.

❖ The issue for upward valuation/downward probing is not predominantly how to derive conjunct agreement in **(6)**, but to exclude plural agreement in **(2)** and **(6)** where the DP [PL] would be in the 'perfect' Agree configuration. Note that intervention (Preminger 2011, Preminger & Polinsky 2015) could not be called to the rescue here given the possibility of agreement in **(5)**.

New type of semantic agreement

(Im)possible mismatches

❖ **Mädchen 'girl':** Formal **NEUT**; semantic **FEM**

(7) Ein   nettes   **Mädchen**   / ***Frau**
    a.**NEUT**   nice.**NEUT**   girl (**NEUT**)   / *woman (**FEM**)

(8) Eine   nette   **Frau**   / ***Mädchen**
    a.**FEM**   nice.**FEM**   woman (**FEM**)   / * girl (**NEUT**)

(9) Das **Mädchen**   genießt   **ihren**/**seinen**   Urlaub
    the.**NEUT** girl   enjoys   her/its   vacation

The Agreement Hierarchy

Corbett (1979, 1997, 2006)

formal (uφ)   **semantic (iφ)**

	attributive	predicate	relative pronoun	personal pronoun
German:	**uφ**			**uφ** or **iφ**

In short

- ❖ Agreement in nominal ellipsis

- ❖ Challenge for the universal nature of Corbett's (1979, 2006) **Agreement Hierarchy**

- ❖ Refined Hierarchy

Relative pronouns

(10) Das **Mädchen** **das** **ihren**/**seinen** Urlaub genießt
the.NEUT girl who.NEUT her/its vacation enjoys

(11) *Das **Mädchen** **die** **ihren**/**seinen** Urlaub genießt
the.NEUT girl who.FEM her/its vacation enjoys

Corbett, Comrie: predicate hierarchy

formal (uφ)   **semantic (iφ)**

attributive	predicate	relative pronoun	personal pronoun

German: **uφ**   **uφ**   **uφ** or **iφ**

Corbett, Comrie: predicate hierarchy

formal (uφ)   **semantic (iφ)**

	attributive	predicate	relative pronoun	personal pronoun
German:	**uφ**		**uφ**	**uφ** or **iφ**

verb   participle   adjective   noun

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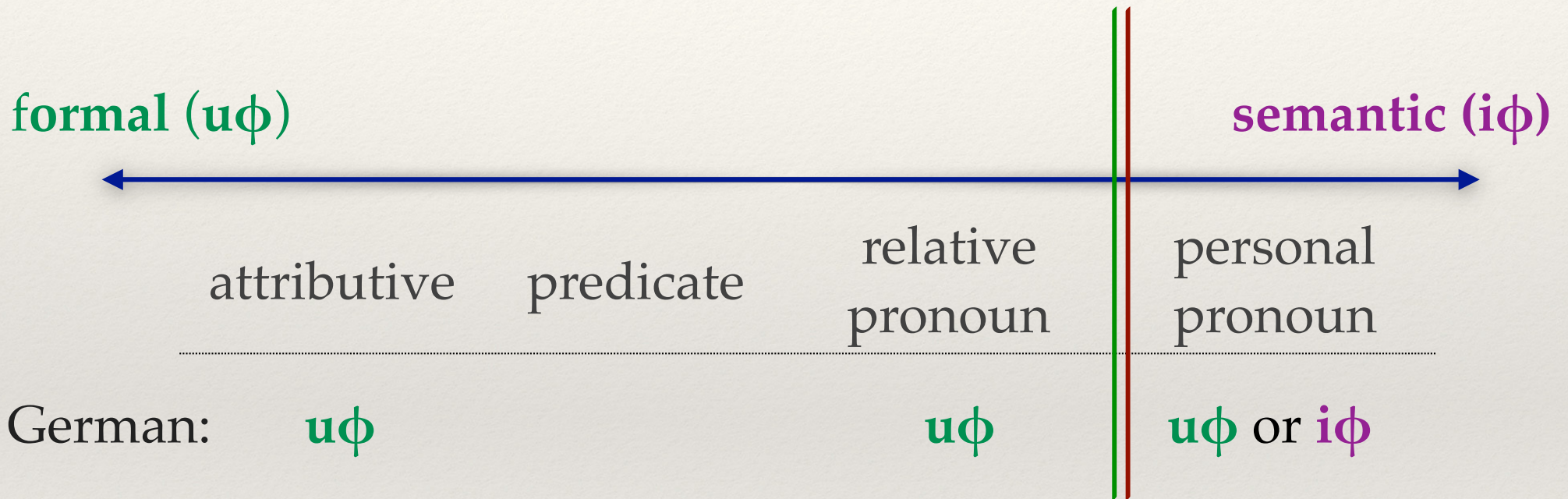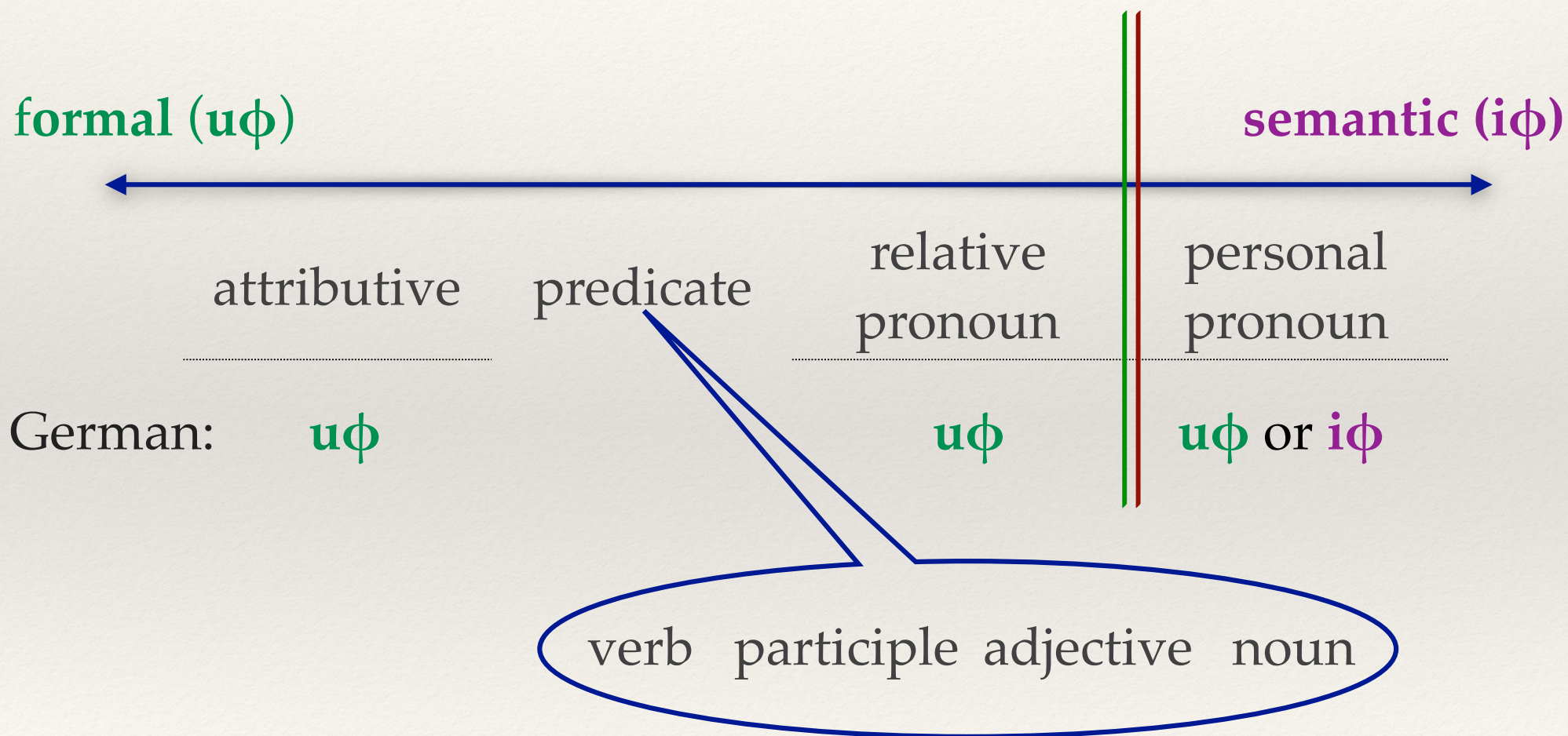
Verbs, participles

❖ As expected, verbs do not allow semantic agreement (vs. English)

❖ Participles, unless used attributively, do not agree at all

(12) Das Komittee / der Ausschuss / die Regierung **hat** / ***haben…**
the.committee / the board / the gov't has.SG / *have.PL
'The committee / government have met' (Commonwealth)

(13) Das **Mädchen** hat gegessen / ***gegessene** / ***gegessenes**
the girl.NEUT has eaten.Ø / *eaten.FEM / *gegessenes.NEUT

Corbett, Comrie: predicate hierarchy

formal (uφ)   **semantic (iφ)**

attributive   predicate   relative pronoun   personal pronoun

German: **uφ**   **uφ**   **uφ** or **iφ**

verb   participle   adjective   noun

uφ   **Ø**
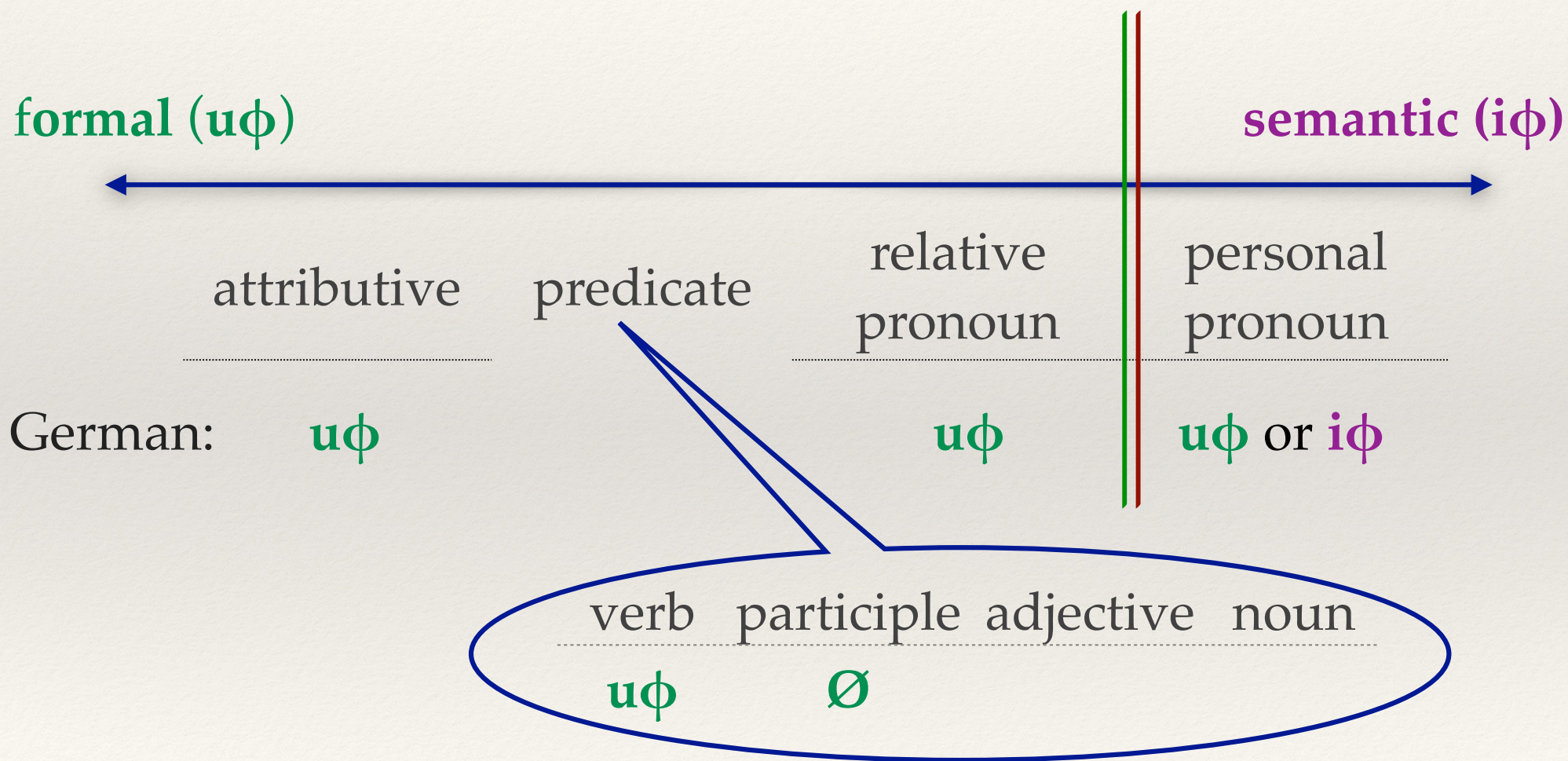
Predicates

❖ Predicative APs and full DPs: no formal agreement

(14) Das **Mädchen** ist nett / ***nette** / ***nettes**
the.**NEUT** girl is nice.Ø / *nice.**FEM** / *nice.**NEUT**

(15) Du bist das **Mädchen (das…)**
You are the.**NEUT** girl

(16) Er ist die **Partyleiche** / das **Opfer**
He is the.**FEM** party.dead.body / the.**NEUT** victim

Corbett, Comrie: predicate hierarchy

formal (uφ) **semantic (iφ)**

attributive	predicate	relative pronoun	personal pronoun

German: **uφ**   **uφ**   **uφ** or **iφ**

verb	participle	adjective	noun
uφ	Ø	Ø	Ø ?

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New evidence

formal (uφ)   **semantic (iφ)**

$\longleftarrow$ ——————————————————————————— $\longrightarrow$

attributive	predicate	relative pronoun	personal pronoun

German: **uφ**   **uφ**   **uφ** or **iφ**

verb	participle	adjective	noun
uφ	**Ø**	**Ø**	**iφ**

New evidence

formal (uφ)   **semantic (iφ)**

attributive	predicate #1	relative pronoun	personal pronoun	predicate #2
German: **uφ**		**uφ**	**uφ** or **iφ**	**iφ**

verb	participle	adjective
uφ	**Ø**	**Ø**

Towards evidence for obligatory semantic agreement

No formal, but semantic match

(17) Er   ist   die **Partyleiche**   / **Person** / **#33**
He   is   the.FEM party.dead.body / person / #33
    uϕ: (3.)SG.MASC   **uϕ:** (3.)SG.FEM
    iϕ: (3.)SG.MASC   **iϕ:** (3.)SG.—

(18) Er   ist   eine   **#weibliche** / **männliche** **Person**
He   is   the.FEM **#female**   / **male**   person

female OK: if not the true gender is meant but 'female' refers to behavior or appearance; 'female' would then have a different (more complex) semantics (it would be gradable 'very female' etc.) .

Two types of nominal ellipsis

- ❖ N(P) ellipsis: deletion of a specific antecedent N(P)

- ❖ Deep ellipsis: abstract null N specified for [±ANIMATE]

(19) Dieser **Bub** ist der einzige ~~Bub~~ der traurig ist
    this boy is the only ~~boy~~ who sad is

(20) Der **Bub** ist der einzige $\emptyset_{[+\text{ANIM}]}$ der einen Löffel hat
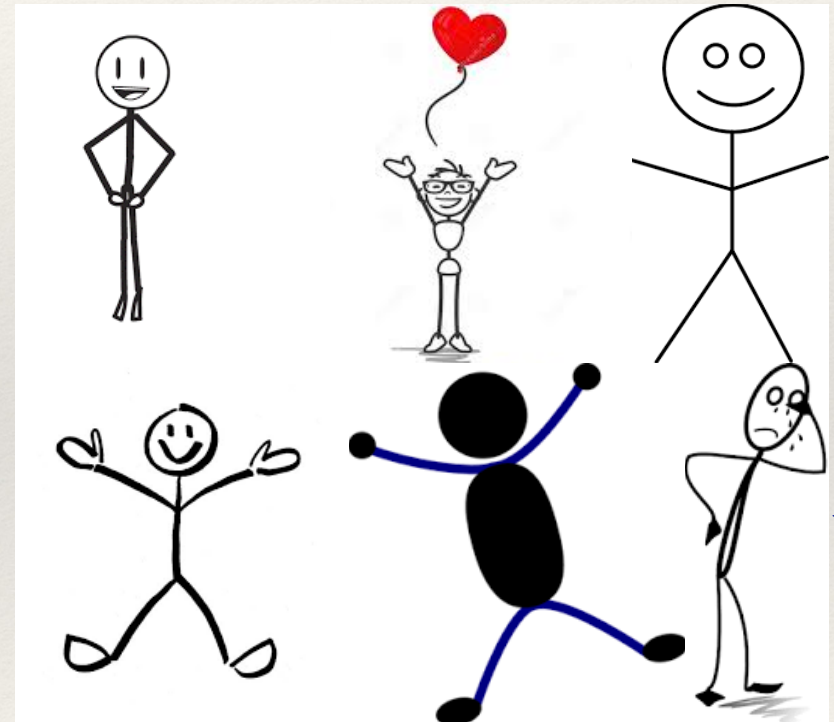   the boy is the only ONE who a spoon has

(19) This boy is the only one [~~boy~~] who is sad.

**(20)** The boy is the only one [$\emptyset_{\text{[+ANIM]}}$] who has a spoon.

boys:

boy
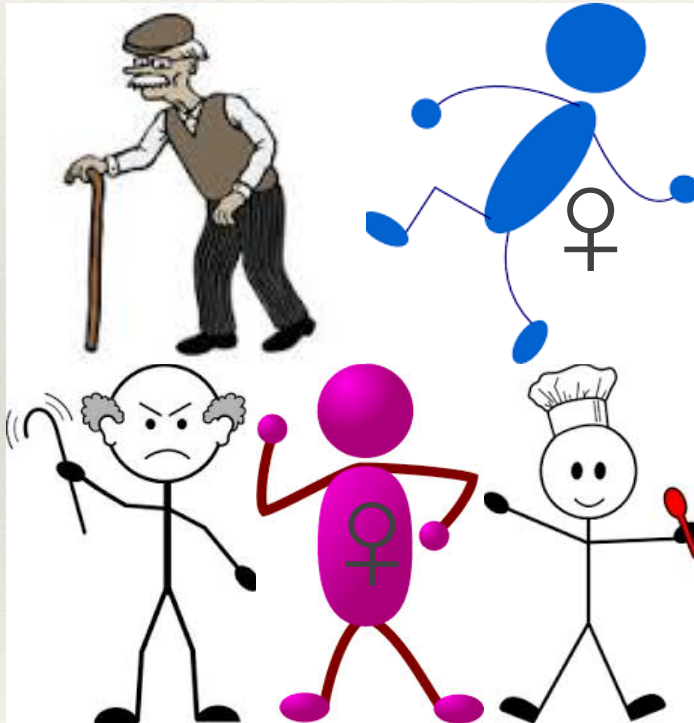
Agreement

(19) Dieser **Bub** ist **[der** einzige ~~**Bub**~~ **] [der** traurig ist **]**
this boy is **[** the.**MASC** only ~~boy~~ **] [** who.**MASC** sad is **]**

(20) Der **Bub** ist **[der** einzige $\emptyset_{[+\text{ANIM}]}$**] [der** einen Löffel hat **]**
the boy is **[** the.**MASC** only ONE **] [** who.**MASC** a spoon has **]**

* Der **Bub** ist **[die** einzige $\emptyset_{[+\text{ANIM}]}$**] [die** einen Löffel hat **]**
the boy is **[** the.**FEM** only ONE **] [** who.**FEM** a spoon has **]**

(21) Der **Bub** ist **[die** einzige **Person] [die** einen Löffel hat **]**
the boy is **[** the.**FEM** only person **] [** who.**FEM** a spoon has **]**

Predication ≈ semantic agreement

(19) Dieser **Bub** ist [_{DP} **der** einzige ~~Bub~~] [**der**…]
this boy   is [_{DP} the.**MASC** only ~~boy~~] [who.**MASC**…]

(21) Der **Bub** ist [_{DP} **die** einzige **Person**] [**die**… (]
the boy   is [_{DP} the.**FEM** only person] [who.**FEM**…]
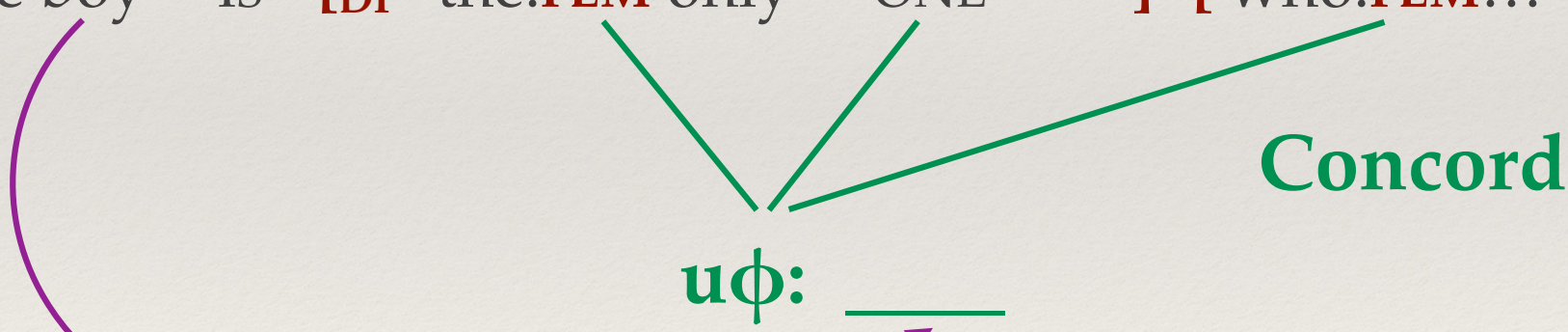
Concord/uφ Agree

Predication

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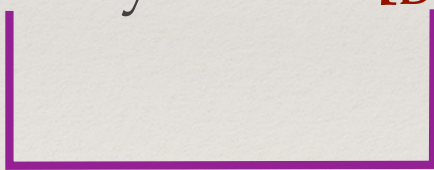
Semantic Agree

(21) Der **Bub** ist [DP **der** einzige $\emptyset_{[+\text{ANIM}]}$] [**der**…]

the boy is [DP the.**MASC** only ONE] [who.**MASC**…]

* Der **Bub** ist [DP **die** einzige $\emptyset_{[+\text{ANIM}]}$] [**die**…]

the boy is [DP the.**FEM** only ONE] [who.**FEM**…]

Concord

uφ: _____

Semantic Agree/iφ Agree

Deep ellipsis in mismatch cases

(22)   Das **Mädchen** ist **[die** einzige   Ø_[+ANIM] **] [die**   … **]**
the girl   is   **[** the.**FEM** only   ONE   **] [** who.**FEM**   **]**

*   Das **Mädchen** ist **[das** einzige   Ø_[+ANIM] **] [das**   … **]**
the girl   is   **[** the.**NEUT** only ONE   **] [** who.**NEUT**   … **]**

blau angezogen ist   'is dressed in blue'

man   **girl**   boy   boy   man   boy   boy
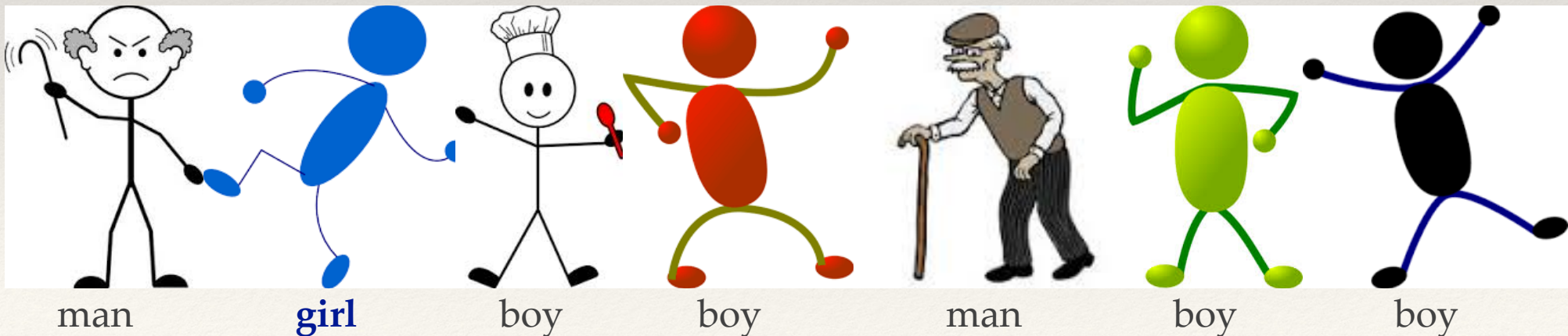
N(P) ellipsis in mismatch cases

(23) Das **2. Mädchen** ist **[die** einzige   Ø[+ANIM]   **] [die**   … **]**
the 2nd girl   is **[** the.**FEM** only   ONE   **] [** who.**FEM** … **]**

(24) Das **2. Mädchen** ist **[das** einzige   ~~Mädchen~~ **] [das**   … **]**
the 2nd girl   is **[** the.**NEUT** only ~~girl~~   **] [** who.**NEUT** … **]**

blau angezogen ist   'is dressed in blue'

Girls:

Generalization

- In predicate constructions, formal agreement between the subject and the ellipsis remnant is only possible when the interpretation is compatible with N(P) ellipsis.

(25) [the N].**uφ≠iφ** is **[** the only ~~N.**uφ**~~ who **].uφ**

[the N].**uφ≠iφ** is **[** the only ∅$_{[+ANIM]}$ who **].*uφ/√iφ**

Further evidence

(26) Die **Gabel**   ist [**das** einzige   Ø[–ANIM]] [**das/was**   …]
      the fork.**FEM**   is [the.**NEUT** only   ONE   ] [that.**NEUT**   …]

  *   Die **Gabel**   ist [**die** einzige   Ø[–ANIM]] [**die**   …]
      the fork.**FEM**   is [the.**FEM** only   ONE   ] [that.**FEM**   …]

      niemand vergessen hat   'nobody forgot'

3/6   **5/6**   **6/6**   **4/6**   **2/6**

candle.FEM   napkin.FEM   fork.**FEM**   vase.**FEM**   bottle.**FEM**

Further evidence

(27) Die **Kuchengabel** ist [**die** einzige ~~Gabel~~] [**die** …]
the cake.fork.**FEM** is [the.**FEM** only ~~fork~~] [that.**FEM** …]

niemand erkannt hat   'nobody recognized'

✓   ✓   ✗   ✓   ✓
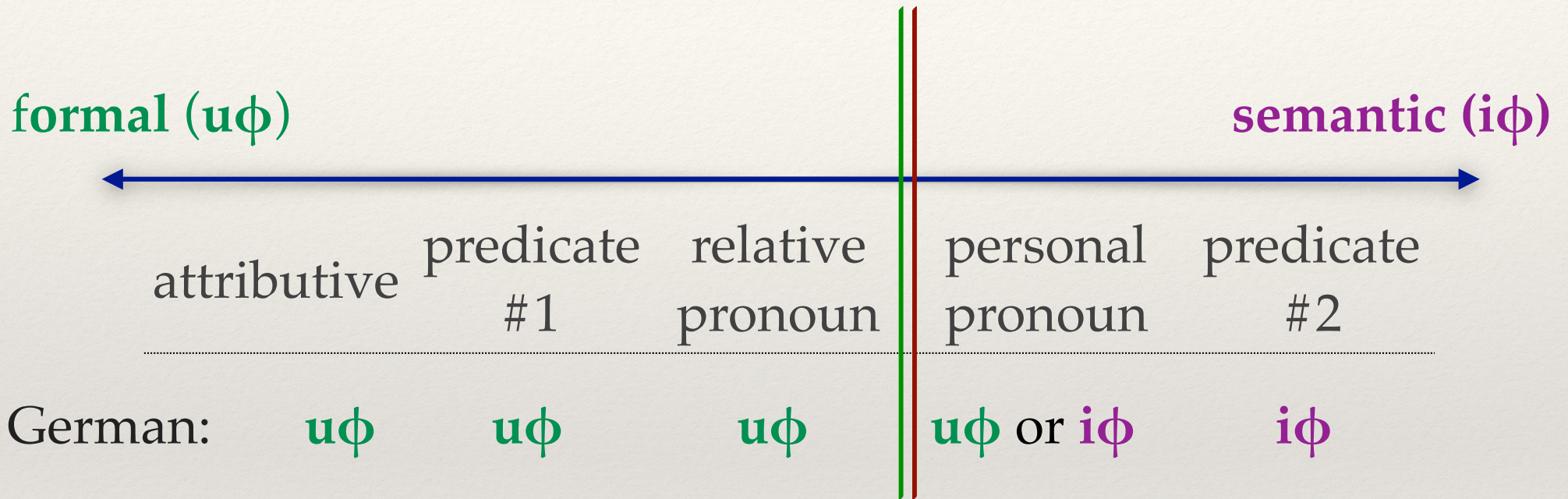

menu fork   oyster fork   cake fork   fish fork   carving fork

Implementing the generalization

German Agreement

formal (uφ)   **semantic (iφ)**

attributive	predicate #1	relative pronoun	personal pronoun	predicate #2
German: **uφ**	**uφ**	**uφ**	**uφ** or **iφ**	**iφ**

❖ Formal vs. semantic agreement: Deactivation of certain feature types on the controller, based on the Agreement Hierarchy

Implementation

❖ (N)Ps/DPs can have two sets of φ-features: **uφ**, **iφ**

(28) Formal agreement:

controller [iφ: val, **uφ: val**]   ⟵--→**Agree**   target [φ: ___]

(29) Semantic agreement:

controller [**iφ: val**, uφ: val]   ⟵--→**Agree**   target [φ: ___]

Deep ellipsis

(30)   the N   is   [$_{DP}$ the.**uφ** only   Ø$_{[+ANIM]}$] [who.**uφ**…]

uφ: val
iφ: val

Concord

uφ: ___

Predicate #2

Bub 'boy':   **uφ: MASC**   **iφ: MASC**
Mädchen 'girl': **uφ: NEUT**   **iφ: FEM**
Gabel 'fork':   **uφ: FEM**   Ø, −ANIM

Deep ellipsis

(30)   the N   is   [_DP_ the.**uφ** only   Ø_[+ANIM]] [who.**uφ**…]

uφ: val

iφ: val

Concord

uφ: _____

iφ agreement

Bub 'boy':   **uφ: MASC**   **iφ: MASC**
Mädchen 'girl': **uφ: NEUT**   **iφ: FEM**
Gabel 'fork':   **uφ: FEM**   Ø, −ANIM ⟹ NEUT (default)

Syntax vs. semantics/discourse

❖ To restrict predicate agreement to semantic agreement, **the syntactic relation is crucial**

  ❖ **DP** — PRED: deactivates the formal features in German (=fact; e.g., adjectives)

  ❖ **DP** — **T**: only formal agreement

❖ Discourse 'agreement': free to chose

(31) Das **Mädchen** freut sich.   **Sie**/**Es** hat gewonnen.
the.NEUT girl is excited.   She/It has won.
'The girl is excited. She won.'

Relevance of syntax

(32) Das **Mädchen** ist **[die** einzige Ø **] [die** blau angezogen ist**]**
the girl is **[** the.FEM only ONE **] [** who bue dressed is **]**

?? **[Die** einzige Ø **] [die** blau angezogen ist **]** ist das **Mädchen**
[the.FEM only ONE **] [** who bue dressed is **]** is the girl

man   **girl**   boy   boy   man   boy   boy
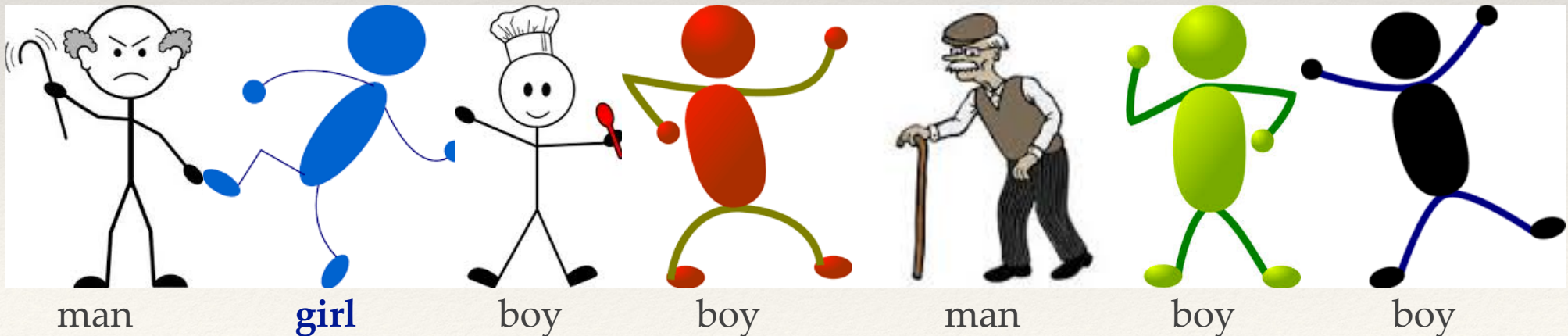
Conclusions

Semantic agreement

❖ Refined Agreement Hierarchy

❖ Predicate agreement:

  ❖ exists in German

  ❖ unusual in that formal agreement is excluded (connection: lack of agreement with some of the #2 predicates)

  ❖ obligatory semantic agreement

❖ A dual feature system for nominal categories allows "semantic" agreement to feed into morphological agreement (both are syntactic — $u\phi$ vs. $i\phi$)

Agree

	Valuation direction
Case	downward
Control	downward
Binding	downward
wh-movement (wh-in-situ, DSQ generalization)	downward
Selection	downward
TMA copying	downward
Vacuous finite tense	downward
Restructuring, voice matching	downward
NPI, NC licensing, Sequence of Tense	downward
iϕ-Agreement	downward
uϕ-Agreement	upward or downward

Semantic agreement

❖ What is special about formal (**uφ**) agreement?

❖ It is (the only?) dependency that applies between two sets of **uφ** features; as such it is perfectly happy in the post-syntactic component, which is driven by linearity (left/right), rather than hierarchy, and allows default (vs. many syntactic dependencies).

❖ Result: One notion of Agree for all syntactic dependencies.

❖ Long-distance agreement of the Tsez, Basque type: Ask me!

Thank you!

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