

## Non-Uniformity amongst 3<sup>rd</sup> person pronouns<sup>1</sup>

### 1. Empirical scope: variation amongst 3<sup>rd</sup> person pronouns

- Looking beyond English, pronouns can be categorized into different classes.  
⇒ Our overview starts with the Cardinaletti & Starke (1999) classes, and then hones in on the distinction between personal vs. demonstrative pronouns.

#### 1.1 Distinctions amongst personal pronouns: the Cardinaletti & Starke classes

- Cardinaletti & Starke (1999) discuss three types of personal pronouns, namely *strong*, *weak* and *clitic*. The following diagnostics serve as classificational criteria. (NB: None of these criteria are biconditionals; they merely serve as heuristics.)  
⇒ *Strong* pronouns can be conjoined (*er und ...*) and focused (*nur er* ‘only he’).  
⇒ *Strong* pronouns cannot have a non-human referent (in a broad sense).

**Criterion 1:** Classify a personal pronoun as *strong* if it can be coordinated or focused.

**Criterion 2:** Classify a personal pronoun as *deficient* (i.e. *weak* or *clitic*) if it can have a non-human referent.

⇒ C&S: For economy reasons, the weakest possible version is chosen.

⇒ In languages like German, feminine and masculine pronouns are ambiguous.

(1) A: Wo ist dein Sohn? (✓<sub>HUMAN</sub> ⇒ strong pronoun possible)  
‘Where is your son?’

B<sub>1</sub>: <sup>OK</sup> **Er** und die anderen Kinder sind draußen. (*strong* variant of ‘er’)  
he and the other children are outside  
‘He and the other children are outside.’

B<sub>2</sub>: <sup>OK</sup> **Er** ist draußen. (*weak* variant of ‘er’)  
he is outside  
‘He is outside.’

(2) A: Wo ist der Kugelschreiber? (✗<sub>HUMAN</sub> ⇒ strong pronoun impossible)  
‘Where is the pen<sub>[MASC]</sub>?’

B<sub>1</sub>: # **Er** und die Bleistifte liegen auf dem Tisch. (*strong* variant of ‘er’)  
he and the pencils lie on the table  
‘It and the pencils are on the table.’

B<sub>2</sub>: <sup>OK</sup> **Er** liegt auf dem Tisch. (*weak* variant of ‘er’)  
he lies on the table  
‘It is on the table.’

<sup>1</sup> The material of today’s session is based on joint research with Pritty Patel-Grosz.

⇒ In contrast to feminine and masculine pronouns, which are ambiguous, the neuter pronoun *es* must be weak, regardless of its [ $\pm$ HUMAN] status:

- (3) a. Wo ist dein Kind? – <sup>OK</sup> **Es** ist draußen.  
 where is your child<sub>[NEUT]</sub> it is outside  
 ‘Where is your child? – It is outside.’
- b. Wo ist dein Kind? – \* **Es und die anderen Kinder** sind draußen.  
 where is your child<sub>[NEUT]</sub> it and the other children are outside  
 ‘Where is your child? – It and the other children are outside.’

⇒ In addition, *clitic* pronouns share the properties of *weak* pronouns and furthermore lack prosodic independence, i.e. they cannot be complements of a preposition, such as *aof* ‘on’, in (5).

**Criterion 3:** Classify a deficient personal pronoun as *clitic* if it cannot be the complement of a preposition.

- (4) Håd a ma'n no ned gem? *Bavarian*  
 has he.CL to.me.CL=**him**.CL still not given  
 ‘Has he still not given it<sub>CL</sub> to me<sub>CL</sub>?’  
 (example from <http://de.wikipedia.org/wiki/Bairisch>)

- (5) I hån { aof **eam** / \* aof'n } gwært.  
 I have on **him** on=**him**.CL waited  
 ‘I waited for him.’

## 1.2 The personal vs demonstrative distinction

- Another classificatory distinction concerns personal pronouns (*er* ‘he’, *ihn* ‘him’) vs demonstrative pronouns (*der* ‘he’, *den* ‘him’).  
 ⇒ Cardinaletti & Starke (1999) view these two macro-classes as unrelated and thus orthogonal to their strong/weak/clitic distinction.  
 ⇒ However, it is far from clear that the two types of pronouns fail to share a common strength scale, see Patel-Grosz & Grosz (2010).  
 ⇒ One observation is that demonstrative pronouns cannot surface in the c-command domain of an antecedent in subject position.

**Criterion 4:** Classify a 3<sup>rd</sup> person pronoun as *non-demonstrative* (i.e. *personal*) if it can surface in the c-command domain of an antecedent in subject position.

- (6) a. Ich kenne **Oskar**<sub>1</sub>. { **Er**<sub>1</sub> / **Der**<sub>1</sub> } ist ein Genie.  
 I know Oskar he DEM is a genius  
 ‘I know Oskar<sub>1</sub>. He<sub>1</sub> is a genius.’
- b. **Oskar**<sub>1</sub> glaubt, dass { **er**<sub>1</sub> / \* **der**<sub>1</sub> } ein Genie ist.  
 Oskar believes that he DEM a genius is  
 ‘Oskar<sub>1</sub> believes that he<sub>1</sub> is a genius.’ (cf. Wiltschko 1998:144)

⇒ Note that this criterion applies to all three types of personal pronouns:

- (7) a. **Oskar**<sub>1</sub> glaubt, dass er<sub>1</sub> und seine Freunde genial sind. *strong*  
 Oskar believes that he and his friends brilliant are  
 ‘Oskar<sub>1</sub> believes that he<sub>1</sub> and his friends are brilliant.’
- b. **Das Kind**<sub>1</sub> glaubt, dass **es**<sub>1</sub> ein Geschenk bekommt. *weak*  
 the child believes that it a present receives  
 ‘The child<sub>1</sub> believes that it<sub>1</sub> will receive a present.’
- c. **Da Otto**<sub>1</sub> denkt, dass **n**<sub>1</sub> alle megn. *clitic*  
 the Otto thinks that <sup>him</sup>CL all like  
 ‘Otto<sub>1</sub> believes that everyone likes him<sub>CL</sub>.’

### 1.3 Coming to terms with variation: the different approaches

- We have seen four classes of pronouns so far (*strong personal, weak personal, clitic personal, demonstrative*).

⇒ NB: This is plausibly not an exhaustive classification.  
 (For instance, null pronouns still remain outside of the above classification.)

- There are at least two possible ways of dealing with this variation.

⇒ **Structural (syntactic) approaches**, which assume structural differences that constrain semantic interpretation. (Section 2)

⇒ **Lexical (semantic) approaches**, which posit lexicalized semantic differences, plausibly in the shape of different presuppositions. (Section 3)

- We will, in brief, critically evaluate both approaches and conclude that neither can currently derive the full range of empirical observations.

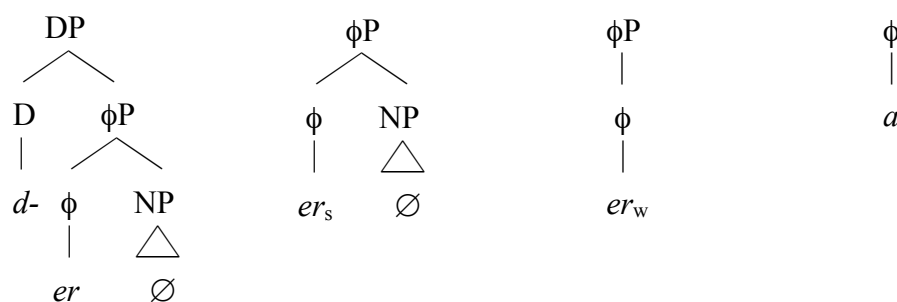
## 2. Structural (syntactic) approaches

### 2.1 The core idea

- Dechaine & Wiltschko (2002:439) (developing a proposal in Wiltschko 1998) suggest different structures for personal / d(emonstrative)-pronouns in German, (8).

⇒ Variation is internal (± null NP; (8a-b) vs (8c-d)), external (± DP shell; (8a) vs (8b-d)) and categorial (maximal projection vs syntactic head; (8a-c) vs (8d)).

- (8) a. *d*-pronoun                      b. strong pers.                      c. weak pers.                      d. clitic pers.



## 2.2 The [ $\pm$ null NP] setting: supporting data

- The division of (8a-b) vs (8c-d) is supported by the idea that null NPs appear to be subject to more rigid licensing conditions than contextually resolved  $\phi$ Ps.
    - $\Rightarrow$  Patel-Grosz & Grosz (2010) observe the following contrasts between personal pronouns and demonstrative pronouns.
- (9)
- a. Wenn ich schwanger werde, werde ich **es** / \***das** auf jeden Fall behalten.  
'If I get pregnant, I will definitely keep {**it** / \***DEM**} (= the baby).'  
(based on Roelofsen 2008:92)
  - b. Hans hat so sehr geblutet, dass **es** / \***das** durch den Verband gedrunken ist und sein Hemd verschmutzt hat.  
'Hans bled so much that {**it** / \***DEM**} (= the blood) soaked his bandages and stained his shirt.'  
(based on Anderson 1971:46)
  - c. Manche Frauen sind schon seit mehr als zwanzig Jahren verheiratet und wissen noch immer nicht, was **sein** / \***dessen** Lieblingsbier ist.  
'Some women have been married for more than twenty years and still do not know what {**his** / \***DEM**'s} (= the husband's) favorite beer is.'  
(based on Roelofsen 2008:122)
- Patel-Grosz & Grosz (2010) argue that (9a-c) is clear evidence for a [ $\pm$  null NP] distinction.
    - $\Rightarrow$  Demonstrative pronouns behave like VP ellipsis ('surface anaphora'), (10a); personal pronouns behave like *do it* anaphora ('deep anaphora'), (10b).
- (10) *Context: Sag produces a cleaver and prepares to hack off his left hand.*
- Hankamer: Don't be alarmed, ladies and gentlemen, we've rehearsed this act several times,
- a. ... # and he never actually **does**. *VP ellipsis (surface anaphora)*
  - b. ... <sup>OK</sup> and he never actually **does it**. *do it anaphora (deep anaphora)*
- (Hankamer & Sag 1976:392, reformatted)
- $\Rightarrow$  This distinction is thus compatible with the following interpretation:

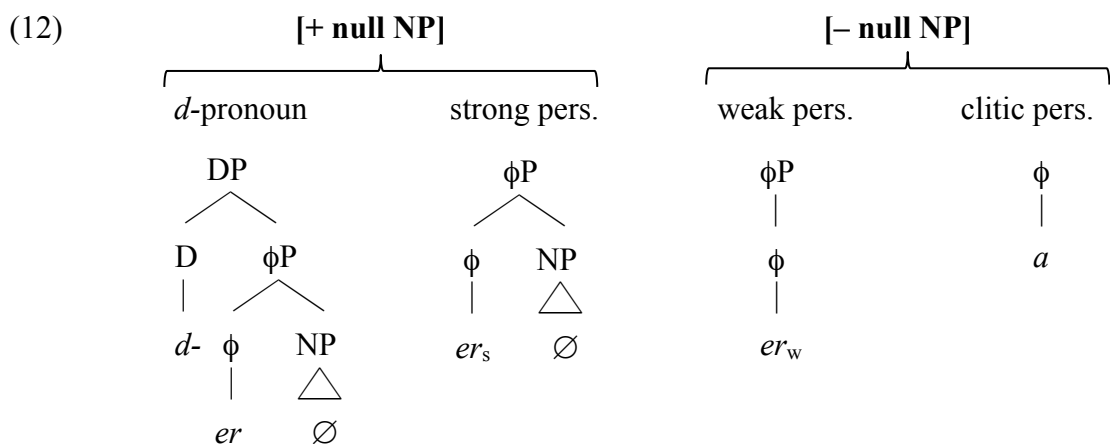
**Interpretation:** All demonstrative pronouns must contain a null NP. By contrast, there are personal pronouns that lack a null NP.

- An open question at this point: Is there evidence that strong personal pronouns contain a null NP, which deficient (weak/clitic) personal pronouns lack?
  - $\Rightarrow$  Test cases involve a weak *er* 'he', in (11B<sub>1</sub>), and a strong *er* 'he', in (11B<sub>2</sub>).

- (11) A: Wie findest Du *Die Another Day*? ‘How do you like *Die Another Day*?’  
 B<sub>1</sub>: Ist das der Film, wo **er** den Bösewicht in Kuba bekämpft?  
 is that the movie where he the bad.guy in Cuba fights  
 ‘Is that the movie where he(=James Bond) fights the bad guy in Cuba.’  
 B<sub>2</sub>: ? Ist das der Film, wo **er und der Bösewicht** in Kuba kämpfen?  
 is that the movie where he and the bad.guy in Cuba fight  
 ‘Is that the movie where he(=James Bond) and the bad guy fight in Cuba.’

### 2.3 The [ $\pm$ null NP] setting: challenging data

- In the most restrictive interpretation of the Dechaine & Wiltschko (2002) model, weak pronouns (e.g. German *es* ‘it’) and clitic pronouns always lack a null NP.



- We now present data that challenge such a view.
  - ⇒ We have seen that ‘donkey interpretations’ originally motivated definite description approaches.
  - ⇒ **Observation 1:** Weak pronouns (German *es* ‘it’) and clitic pronouns (French *le* ‘him’, Bavarian *n* ‘him’) can occur in donkey sentences without fail:

(13) *donkey sentence with weak personal pronoun*

Wenn eine Betonkugel auf ein Glas fällt, dann zerbricht **es**.  
 if a concrete.ball on a glass falls then breaks it  
 ‘If a concrete ball falls on a glass, then **it**(= the glass) breaks.’

(14) *donkey sentences with clitic personal pronoun*

- a. Si un fermier possède un âne, alors il **le** bat. *French*  
 if a farmer owns a donkey then he him.CL beats  
 ‘If a farmer owns a donkey, then he beats **it**.’  
 (Guenthner & Sabatier 1987:119)
- b. Wån a Baua an Esel håt, dân schlägt’**a**’n. *Bavarian*  
 if a farmer a donkey has then beats=he.CL=him.CL  
 ‘If a farmer owns a donkey, then **he** beats **it**.’

- **Observation 2:** Even cases in which dynamic approaches appear to require an e-type strategy (e.g. Chierchia 1992) can contain weak or clitic pronouns.

(15) *bathroom sentence<sup>2</sup> with weak personal pronoun*

Entweder es gibt hier **kein Klo**, oder ich habe **es** übersehen.  
 either it gives here no toilette or I have it overlooked  
 ‘Either there is no toilette here, or I passed **it**(= the toilette) without seeing it.’

(16) *bathroom sentence with clitic personal pronoun (Austrian Bavarian)*

Entweda **ka Mō** is no dā gweï, oda i hãb’**m** net gsej.  
 either no man is yet here been or I have=him.CL not seen  
 ‘Either **no man** has been here yet, or I have not seen **him**<sub>CL</sub>(= the man).’

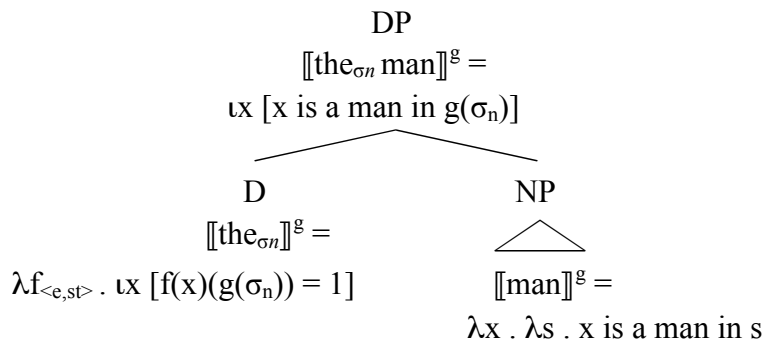
- If we accept the premise that a definite description analysis is required for such pronouns (at least in (15) and (16)), then strong/weak/clitic pronouns must all be compatible with a definite description analysis.
- The crucial problem is that weak and clitic pronouns in the view in (17) may lack the syntactic building blocks for a semantic analysis as definite descriptions.

(17) a. weak pers.      b. clitic pers.



⇒ This is evident in illustration (18) (for (16)), where the *NP* crucially provides the property (e.g.  $[\lambda x. \lambda s. x \text{ is a man in } s]$ ) that is used to identify the referent.

- (18) a. surface form (clitic pronoun):       $m$  ‘him’  
 b. corresponding non-pronominal DP:       $in M\tilde{o}$  ‘the man’  
 c. Elbourne-style LF:



<sup>2</sup> Roberts (1989), standardly credited to Barbara Partee.

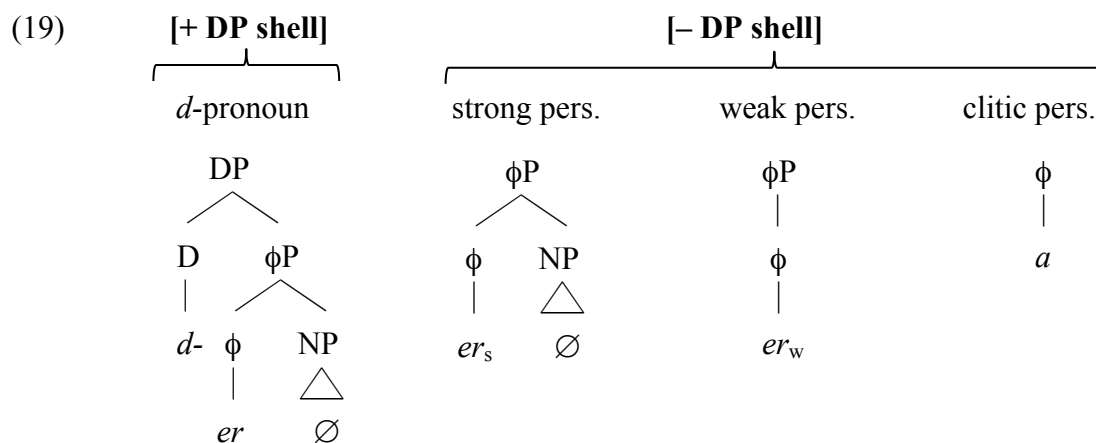
- There are evidently various options for dealing with this dilemma:
  - ⇒ Option 1: Give up an analysis of pronouns as definite descriptions.
  - ⇒ Option 2: Give up the Dechaine & Wiltschko view in (12) and (17).
  - ⇒ Option 3: Assume that (17a-b) can be mapped to an LF that emulates (18c) without having the syntactic structure of a definite description.
- **Interim conclusion:** one core question that should direct future research on pronominal classes is whether the benefits of a syntactic approach (cf. section 2.2) can be maintained while the challenges (section 2.3) are dealt with.

### 3. Lexical (semantic) approaches

#### 3.1 Introducing the personal vs demonstrative pronoun distinction

##### 3.1.1 Can demonstrative pronouns be bound? (And if not, what does it mean?)

- Dechaine & Wiltschko's (2002) approach predicts that demonstrative pronouns (and only demonstrative pronouns) pattern like non-pronominal DPs, (19).



- A central data point from Wiltschko (1998) is given in (20):
  - ⇒ *d*-pronouns can apparently not be syntactically bound, which indicates that they behave like full DPs (*der Mann* 'the man') rather than pronouns (*er* 'he').

- (20) a. **Jeder Mann**<sub>1</sub> glaubt, dass {**er**<sub>1</sub> / \***der**<sub>1</sub>} ein Genie ist.  
 every man believes that he DEM a genius is  
 'Every man believes that he is a genius.'
- b. dass die Frau<sub>1</sub> **jeden Mann**<sub>2</sub> küsst, die<sub>1</sub> {**ihn**<sub>2</sub> / \***den**<sub>2</sub>} liebt.  
 that the woman every man kisses who him DEM loves  
 'that the woman<sub>1</sub> who loves him<sub>2</sub> kissed every man<sub>2</sub>.'

(adapted from Wiltschko 1998:144,166)

- Hinterwimmer (2014) challenges Wiltschko's empirical claim and proposes to uniformly treat personal and demonstrative pronouns as definite descriptions.

### 3.1.2 Hinterwimmer's bound demonstrative pronouns

- Based on his examples in (21a-c) Hinterwimmer (2014:67) claims that demonstrative pronouns can, in fact, be bound, as long as the conditions are right.

- (21) a. Peter<sub>1</sub> lädt **jeden Syntaktiker**<sub>2</sub> zum Abendessen ein, wenn **der**<sub>2</sub> ihm<sub>1</sub> versichert, dass **er**<sub>2</sub> Montague gelesen hat.  
Peter invites every syntactician to.the dinner V.PRT if DEM him assures that he Montague read has  
'Peter<sub>1</sub> invites every syntactician<sub>2</sub> for dinner if he<sub>2</sub> assures him<sub>1</sub> that he<sub>2</sub> has read Montague.'
- b. Peter<sub>1</sub> glaubt von **jedem Kollegen**<sub>2</sub>, dass **der**<sub>2</sub> klüger ist als er<sub>1</sub>.  
Peter believes of every colleague that DEM smarter is than he  
'Peter<sub>1</sub> believes of every colleague<sub>2</sub> that he<sub>2</sub> is smarter than him<sub>1</sub>.'
- c. Peter<sub>1</sub> stellte **jedem Studenten**<sub>2</sub> mindestens eine Frage, die **der**<sub>2</sub> nicht beantworten konnte.  
Peter posed every student at.least one question that DEM not answer could  
'Peter<sub>1</sub> asked every student<sub>2</sub> at least one question that he<sub>2</sub> couldn't answer.'

### 3.1.3 Critical evaluation of Hinterwimmer's empirical claim

- **Main caveat:** the type of configurations that Hinterwimmer looks at is very similar to Elbourne's (2013) cases of bound non-pronominal DPs.

(22) John fed **no cat of Mary's** before **the cat** was bathed. (Elbourne 2013:126)

⇒ Compare the German translations of an Elbourne style example:  
(All three versions appear to be equally acceptable.)

(23) Hans hat **keinen Hund** gefüttert, bevor {**der Hund** / **der** / **er**} sauber war.  
Hans has no dog fed before the dog DEM it clean was  
'Hans fed no dog before {the dog / it} was clean.'

⇒ In fact, each of Hinterwimmer's (2014:67) example seems to be equivalent in acceptability to its respective counterpart in (24), where we replaced the demonstrative pronouns with a non-pronominal DP.

(24) a. Peter<sub>1</sub> lädt **jeden Syntaktiker**<sub>2</sub> zum Abendessen ein, wenn **der Syntaktiker**<sub>2</sub> ihm<sub>1</sub> versichert, dass **er**<sub>2</sub> Montague gelesen hat.  
Peter invites every syntactician to.the dinner V.PRT if the syntactician him assures that he Montague read has  
'Peter<sub>1</sub> invites every syntactician<sub>2</sub> for dinner if the syntactician<sub>2</sub> assures him<sub>1</sub> that he<sub>2</sub> has read Montague.'



- b. Peter<sub>1</sub> glaubt von **jedem Kollegen**<sub>2</sub>, dass **der Kollege**<sub>2</sub> klüger ist  
 Peter believes of every colleague that the colleague smarter is  
 als er<sub>1</sub>.  
 than he  
 ‘Peter<sub>1</sub> believes of every colleague<sub>2</sub> that the colleague<sub>2</sub> is smarter than him<sub>1</sub>.’
- c. Peter<sub>1</sub> stellte **jedem Studenten**<sub>2</sub> mindestens eine Frage, die  
 Peter posed every student at.least one question that  
**der Student**<sub>2</sub> nicht beantworten konnte.  
 the student not answer could  
 ‘Peter<sub>1</sub> asked every student<sub>2</sub> at least one question that the student<sub>2</sub> couldn’t  
 answer.’

- In other words, Hinterwimmer’s (2014) examples in (21a-c) are fully compatible with Wiltschko’s (1998) claim, since their pattern is identical to that in (24a-c).

**Interpretation:** *D*-pronouns appear to enter a quantifier-variable relationship in the same configurations in which non-pronominal DPs appear to do so.

- We will thus mainly focus on Hinterwimmer’s (2014) approach to the personal vs demonstrative distinction in non-binding configurations.  
 (Wiltschko 1998 does not discuss these.)

### 3.2 Personal and demonstrative pronouns as definite descriptions

- Hinterwimmer (2014) argues that the difference between personal and demonstrative pronouns should be captured in terms of lexicalized differences.  
 ⇒ **Core idea:** demonstrative pronouns exhibit a dispreference for referents that are current aboutness topics (Bosch et al. 2003, Bosch & Umbach 2007).
- Let us start with a simple example.

(25) Leopold<sub>1</sub> hat den Detektiv<sub>2</sub> angerufen. {Er<sub>1/2</sub> / Der<sub>2</sub>} war krank.  
 Leopold has the detective called he DEM was sick  
 ‘Leopold called the detective. He was sick.’

- Glossing over  $\phi$ -features (which he treats as presuppositions), Hinterwimmer (2014:87) posits the denotations in (26) for a simple personal pronoun.  
 ⇒ The null NP in pronouns is mapped to a salient property  $P_m$  via the assignment function  $g$  (e.g. to the property  $[\lambda x.\lambda s.x$  is a detective in  $s$ ])  
 ⇒ NB: This analysis does not rely on the NP containing an actual elided noun.

(26)  $[[er_{\sigma n} NP_m]]^g = \iota x [g(P_m)(x)(g(\sigma_n))]$

- ⇒ The two readings are derived via two different assignment functions, in (27).

- (27) a. *Context:*  $g(P_7) = [\lambda x.\lambda s.x \text{ is a detective in } s]$   
*Reading with reference to the detective:*  
 $[[\mathbf{er}_{\sigma_3} \text{ NP}_7] \text{ war krank}]^g$   
 $= \lambda s . \iota x [g(P_7)(x)(g(\sigma_3))] \text{ was sick in } s$   
 $= \lambda s . \iota x [[\lambda y.\lambda s'.y \text{ is a detective in } s'](x)(g(\sigma_3))] \text{ was sick in } s$   
 $= \lambda s . \iota x [x \text{ is a detective in } g(\sigma_3)] \text{ was sick in } s$
- b. *Context:*  $g(P_7) = [\lambda x.\lambda s.x \text{ is called Leopold in } s]$   
*Reading with reference to Leopold:*  
 $[[\mathbf{er}_{\sigma_3} \text{ NP}_7] \text{ war krank}]^g$   
 $= \lambda s . \iota x [g(P_7)(x)(g(\sigma_3))] \text{ was sick in } s$   
 $= \lambda s . \iota x [[\lambda y.\lambda s'.y \text{ is called Leopold in } s'](x)(g(\sigma_3))] \text{ was sick in } s$   
 $= \lambda s . \iota x [x \text{ is called Leopold in } g(\sigma_3)] \text{ was sick in } s$
- The markedness of d-pronouns is lexically represented as a presupposition, as in Hinterwimmer's (2014:99) (28); we will ignore (28b) here and work with (28a).

- (28)  $[[\mathbf{der}_{\sigma_n} \text{ NP}_m]]^g = \iota x [g(P_m)(x)(g(\sigma_n)) \wedge g(P_m) \neq P^*]$   
 where  $P^*$  is the currently most salient property.
- a. In non-binding configurations,  $P^* = P_{TOP}$ , where  $P_{TOP}$  is the property denoted by the NP contained in the most recent DP functioning as an aboutness topic.
- b. In potential binding configurations,  $P^*$  is the property of being (identical to) a variable A-bound by the DP functioning as the grammatical subject of the sentence containing the respective D-pronoun.
- (stylistically adapted from Hinterwimmer 2014:99, ignoring  $\phi$ -features)

- Reconsider our example above, focusing on the demonstrative case.

- (29) Leopold<sub>1</sub> hat den Detektiv<sub>2</sub> angerufen.  $\{\mathbf{Er}_{1/2} / \mathbf{Der}_2\}$  war krank.  
 Leopold has the detective called he DEM was sick  
 'Leopold called the detective. He was sick.'

⇒ The single possible reading is derived as in (30):

- (30) *Context:*  $g(P_7) = [\lambda x.\lambda s.x \text{ is a detective in } s]$   
 $P^* = P_{TOP} = [\lambda x.\lambda s.x \text{ is called Leopold in } s]$
- Reading with reference to the detective:*  
 $[[\mathbf{der}_{\sigma_3} \text{ NP}_7] \text{ war krank}]^g$   
 $= \lambda s . \iota x [g(P_7)(x)(g(\sigma_3)) \wedge g(P_7) \neq P^*] \text{ was sick in } s$   
 $= \lambda s . \iota x [[\lambda y.\lambda s'.y \text{ is a detective in } s'](x)(g(\sigma_3))$   
 $\quad \wedge [\lambda x.\lambda s.x \text{ is a detective in } s] \neq P^*] \text{ was sick in } s$   
 $= \lambda s . \iota x [x \text{ is a detective in } g(\sigma_3)$   
 $\quad \wedge [\lambda x.\lambda s.x \text{ is a detective in } s] \neq P^*] \text{ was sick in } s$

⇒ The impossible reading is missing due to a presupposition failure:

- (31) *Context:*  $g(P_7) = [\lambda x. \lambda s. x \text{ is called Leopold in } s]$   
 $P^* = P_{TOP} = [\lambda x. \lambda s. x \text{ is called Leopold in } s]$

*Reading with reference to Leopold:*

$[[[\mathbf{der}_{\sigma_3} NP_7] \text{ war krank}]]^g$

=  $\lambda s . \iota x [g(P_7)(x)(g(\sigma_3)) \wedge g(P_7) \neq P^*]$  was sick in  $s$

=  $\lambda s . \iota x [[\lambda y. \lambda s'. y \text{ is called Leopold in } s']](x)(g(\sigma_3))$

$\wedge [\lambda x. \lambda s. x \text{ is called Leopold in } s] \neq P^*$  was sick in  $s$

↔ **Presupposition Failure** ↔

### 3.3 Achievements of Hinterwimmer's approach

- Non-binding configurations include referential uses of pronouns and donkey uses of pronouns.

- (32) a. *referential use:* The actress owns a cat. **She** cuddles **it**.  
 b. *donkey use:* If an actress owns a cat, then **she** (usually) cuddles **it**.

- In all of these configurations, anti-topicality holds.

#### 3.3.1 Anti-topicality in referential configurations

- The core observations are due to Bosch et al. (2003) and Bosch & Umbach (2007). Hinterwimmer's (2014) notion of 'aboutness topic' is Reinhart's (1981).

⇒ **Claim:** The null NP in referential pronouns cannot pick up a property contained in the most recent DP functioning as an aboutness topic, cf. (28a).

- **Illustration 1: Subject as aboutness topics of preceding sentence**

⇒ (33a) is a case, where the subject serves as aboutness topic (which is default).

⇒ The restriction on *der* is thus derived in parallel to (30) and (31) above.

- (33) a. Der Chefarzt<sub>1</sub> untersucht **den** **Patienten**<sub>2</sub>.  
 the head.doctor examines the.ACC patient  
 $\{Er_{1,2} / \mathbf{Der}_2\}$  ist nämlich Herzspezialist.  
 he DEM is after.all heart.specialist  
 'The head doctor is examining the patient. He is a heart specialist after all.'  
 (stylistically adapted, from Bosch et al. 2003)

b.  $P_{TOP} = [\lambda x. \lambda s. x \text{ is a head doctor in } s]$

- **Illustration 2: Fronted non-subjects as aboutness topics of preceding sentence**

⇒ In (34a), the fronted accusative object serves as aboutness topic, see (34b).

- (34) a. Den Patienten<sub>2</sub> untersucht **der** Chefarzt<sub>1</sub>.  
 the.ACC patient examines the head.doctor  
 { Er<sub>1,2</sub> / **Der**<sub>1</sub> } ist nämlich Herzspezialist.  
 he DEM is after.all heart.specialist  
 ‘The head doctor is examining the patient. He is a heart specialist after all.’  
 (stylistically adapted, from Hinterwimmer 2014:63)
- b. P<sub>TOP</sub> = [λx.λs.x is a patient in s]

• **Illustration 3: Aboutness topics vs. fronted material**

⇒ In (35a), Karl is the aboutness topic, whereas Peter is a newly introduced referent; therefore, *der* ‘he’ can refer to Peter, but not to Karl.

- (35) a. Woher Karl<sub>1</sub> das weiß? **Peter**<sub>2</sub> hat es ihm<sub>1</sub> gesagt.  
 how Karl this knows Peter has it him told  
 ‘How does Karl know? Peter told him.’  
 { Er<sub>1,2</sub> / **Der**<sub>2</sub> } war gerade hier.  
 he DEM was just here  
 ‘He has just been here.’  
 (stylistically adapted, from Bosch & Umbach 2007)

b. P<sub>TOP</sub> = [λx.λs.x is called Karl in s]

• **Problematic case: examples with a single possible referent**

⇒ If the context only contains a single possible referent, anti-topicality effects disappear.

- (36) Gestern hatte **Paul** eine gute Idee.  
 yesterday had Paul a good idea  
 { Er / **Der** } hat einfach immer die besten Ideen!  
 he DEM has simply always the best ideas  
 ‘Yesterday Paul had a good idea. He simply always has the best ideas!’  
 (stylistically adapted, from Hinterwimmer 2014:90)

⇒ However, Hinterwimmer (2014:89) conjectures that some additional “emotive meaning component” is required, cf. (36) vs. (37).

- (37) Gestern hatte **Paul** eine gute Idee.  
 yesterday had Paul a good idea  
 { Er / ??**Der** } beschloss, Maria in die Oper einzuladen.  
 he DEM decided Maria in the opera to.invite  
 ‘Yesterday Paul had a good idea. He decided to invite Maria to the opera’  
 (stylistically adapted, from Hinterwimmer 2014:89)

⇒ He conjectures that such constructions involve something along the lines of (38c) (involving some type of coercion or contextual enrichment).

- (38) a.  $P_{TOP} = [\lambda x. \lambda s. x \text{ is called Paul in } s]$   
 b. ✗  $g(P_7) = [\lambda x. \lambda s. x \text{ is called Paul in } s]$  (=  $P_{TOP}$ )  
 c. ✓  $g(P_7) = [\lambda x. \lambda s. x \text{ is called Paul in } s \wedge c_s \text{ admires Paul in } s]$  ( $\neq P_{TOP}$ )

### 3.3.2 Anti-topicality in donkey configurations

- The same anti-topicality constraint carries over to donkey sentences, i.e. the indefinites here classifies as an aboutness topic of sorts.

⇒ To make the analysis work, Hinterwimmer argues that donkey sentences of this type are actually claims concerning *farmers* in general (not just claims concerning *dog-owning farmers*), i.e. *a farmer* classifies as aboutness topic.

- (39) a. Wenn ein Bauer<sub>1</sub> **einen Hund**<sub>2</sub> besitzt, dann liebt er<sub>1</sub> **den**<sub>2</sub>.  
 if a farmer a dog owns then loves he DEM.acc  
 ‘If a farmer owns a dog, then he loves it.’ (*not*: # then it loves him)
- b. Wenn ein Bauer<sub>1</sub> **einen Hund**<sub>2</sub> besitzt, dann liebt **der**<sub>2</sub> ihn<sub>1</sub>.  
 if a farmer a dog owns then loves DEM.nom him  
 ‘If a farmer owns a dog, then it loves him.’ (*not*: # then he loves it)

### 3.4 Comparing Hinterwimmer (2014) and Wiltschko (1998)

- Wiltschko’s (1998) approach does not predict anti-topicality. Non-pronominal DPs (such as the somewhat generic *der Mann* ‘the man’) lack such a property:

- (40) a. Der Chefarzt<sub>1</sub> untersucht **den Patienten**<sub>2</sub>.  
 the head.doctor examines the.ACC patient  
**Der**<sub>2</sub> ist nämlich Herzspezialist.  
 DEM is after.all heart.specialist  
 ‘The head doctor is examining the patient. He is a heart specialist after all.’  
 (stylistically adapted, from Bosch et al. 2003)
- b. **Der Chefarzt**<sub>1</sub> untersucht den Patienten<sub>2</sub>.  
 the head.doctor examines the.ACC patient  
**Der Mann**<sub>1/2</sub> ist nämlich Herzspezialist.  
 DEM man is after.all heart.specialist  
 ‘The head doctor is examining the patient. The man is a heart specialist after all.’

- At the same time, Hinterwimmer’s (2014) approach more or less stipulates anti-topicality by treating it as a lexical presupposition.

⇒ By doing so, we can no longer maintain a uniform analysis of demonstrative pronouns and definite determiners, in spite of their identical form, (41a).

⇒ This is made explicit in (41b) vs (41c), based on Hinterwimmer’s proposal.

- (41) a. **Der (Mann)** ist Herzspezialist. / **Er (\*Mann)** ist Herzspezialist.  
 the man is heart.specialist he man is heart.specialist  
 ‘He / The man is a heart specialist.’ / ‘He (\*man) is a heart specialist.’
- b.  $[[er_{\sigma_n} \text{ ‘he’}]^g = \lambda P . \iota x [P(x)(g(\sigma_n))]] = [[der_{\sigma_n} \text{ ‘the’}]^g]$
- c.  $[[der_{\sigma_n} \text{ ‘he’}]^g = \lambda P . \iota x [P(x)(g(\sigma_n)) \wedge P \neq P^*]] \neq [[der_{\sigma_n} \text{ ‘the’}]^g]$

### 3.5 The limits of Hinterwimmer’s approach: potential binding configurations

- For classic cases of syntactic binding, anti-topicality is difficult to apply. (Quantifiers like *jeder Mann* ‘every man’ cannot be aboutness topics.)
- Hinterwimmer (2014) observes that the constraint at work in such configurations is a constraint against being bound from a subject position, (42a) vs (42b).

- (42) a. **Jeder Teilnehmer**<sub>1</sub> wurde gefragt, ob  $\{*\mathbf{der}_1 / \mathbf{er}_1\}$  etwas  
 every participant was asked whether DEM he something  
 essen will.  
 eat wants  
 ‘Every participant was asked whether he wanted to eat something.’
- b. **Von jedem Politiker**<sub>1</sub> wurde schon einmal behauptet,  
 of every.DAT politician was already once claimed  
 dass  $\{\mathbf{der}_1 / \mathbf{er}_1\}$  korrupt ist.  
 that DEM he corrupt is  
 ‘Every politician was claimed to be corrupt at least once in the past.’  
 (stylistically adapted from Hinterwimmer 2014:93)

⇒ To capture this, he posits (43), repeated (with adaptation) from above.

- (43) *demonstrative pronouns in potential binding configurations* (= (28b))

$$[[der_{\sigma_n} NP_m]^g = \iota x [g(P_m)(x)(g(\sigma_n)) \wedge g(P_m) \neq P^*]$$

where  $P^*$  is the currently most salient property.

In potential binding configurations,  $P^*$  is the property of being (identical to) a variable A-bound by the DP functioning as the grammatical subject of the sentence containing the respective D-pronoun.

where Hinterwimmer defines A-binding as follows:

$\alpha$  A-binds  $\beta$  iff  $\alpha$  is the sister of a  $\lambda$ -predicate whose operator binds  $\beta$ .

- **Sketch of the formal implementation:**

- ⇒ Hinterwimmer (2014) assumes (vs Elbourne 2013) that quantifier-variable binding involves the binding of an individual variable.
- ⇒ For a bound pronoun, e.g. *he*, the idea is that the empty NP property denotes the identity relation with respect to a bound individual variable,  $g(1)$ .

⇒ The following derivation illustrates how a definite description is bound via the identity function that identifies its referent  $y$  with a bound variable  $x$ .

- (44) a. Every actress loves her mother.  
 b. *Hinterwimmer style paraphrase:*  
 Every actress  $x$  loves the mother of the person identical to  $x$ .  
 c. *contextual assignment that yields a bound variable interpretation:*  
 $g(P_7) = [\lambda x . \lambda s . x \text{ is identical to } g(1) \text{ in } s]$   
 (adapted from Hinterwimmer 2014:98)  
 d. *simplified denotation I (omitting the evaluation situation):*  
 $[[[\text{loves} [\text{the}_{\sigma_5} \text{ mother (of) she}_{\sigma_3} \text{ NP}_7]]]]^g$   
 $= \lambda x . x \text{ loves } \iota y [y \text{ is mother in } g(\sigma_7) \text{ of } \iota z [g(P_7)(z)(g(\sigma_3))]]$   
 $= \lambda x . x \text{ loves } \iota y [y \text{ is mother in } g(\sigma_7) \text{ of } \iota z [\mathbf{z \text{ is identical to } g(1) \text{ in } g(\sigma_3)}]]$   
 e. *simplified denotation II (omitting the evaluation situation):*  
 $[[[\beta_1 [\text{loves} [\text{the}_{\sigma_5} \text{ mother (of) she}_{\sigma_3} \text{ NP}_7]]]]]^g$   
 $= \lambda x . [[[\text{loves} [\text{the}_{\sigma_5} \text{ mother (of) she}_{\sigma_3} \text{ NP}_7]]]]^{g[1-x]}(x)$   
 $= \lambda x . x \text{ loves } \iota y [y \text{ is mother in } g(\sigma_7) \text{ of } \iota z [z \text{ is identical to } x \text{ in } g(\sigma_3)]]$

⇒ According to (43), an assignment like (44b) (which includes a free variable that is later bound by the subject (here:  $g(1)$ )) is disallowed whenever we are dealing with a demonstrative pronoun (as opposed to a personal pronoun).

- NB: Recall that Elbourne (2013) no longer assumes individual variables, i.e. this is a fundamental difference between the two views.
- The question is how to explain the difference between “anti-topicality” (in non-binding situations) and “anti-subject-constraint” (in binding situations).  
 ⇒ Hinterwimmer (2014:100) argues that a marked pronoun series serves to indicate that the pronoun is resolved in a non-default way.
  - Bound pronouns are by default resolved to their binder.
  - Non-bound pronouns are by default resolved to the aboutness topic.
- Nevertheless, the concern remains that the anti-subject constraint may simply be viewed as an “anti-binding” constraint, restating the empirical observations.

#### 4. Conclusion

- A structural (syntactic) approach fares well in deriving the following subset of empirical observations:
  - ⇒ Limited ability of demonstrative pronouns to accommodate a missing antecedent. (Section 2.2)
  - ⇒ Correlations between demonstrative pronouns and non-pronominal DPs. (Sections 3.1.3 and 3.4, *pace* Section 3.5)

- A lexical (semantic) approach fares well in deriving the following subset of empirical observations:
  - ⇒ Inability of demonstrative pronouns to refer to a current aboutness topic. (Section 3.3)
- Can one of these approaches be adapted to derive all empirical observations, or might a hybrid approach be necessary? The jury is still out.

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