

# On the Relative Readings with NP Internal Focus of Superlatives<sup>1</sup>

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## 1. Introduction

Heim 1999, and Szabolcsi 1986 noted that superlative expressions allow two kinds of readings: the absolute reading and the relative reading (comparative reading) with NP external focus.

Pancheva & Tomaszewicz 2012 (P&T) reported another relative reading with NP internal focus.

The relative reading with NP external focus is available across languages while the relative reading with NP internal focus is not available in languages like English and German but is available in Slavic languages e.g. Polish, Serbo-Croatian. The availability of the readings are shown in table 1.

- (1) a. John has the best albums by U2. (English: DP)  
b. Iwan ma naj–lepsze albumy U2. (Polish: NP)  
Ivan has naj–better-ACC albums-ACC U2.

Table 1

	English (1a)	Polish (1b)
<b>Absolute Reading (ABS)</b> (The albums by U2 that John has are better than other albums by U2)	√	√
<b>Relative Reading with NP External Focus (REX)</b> (John has better albums by U2 than others do.)	√	√
<b>Relative Reading with NP Internal Focus (RIN)</b> (The albums by U2 that John has are better than the albums by other bands that John has.)	*	√

This talk:

syntactic account of the distribution of the RIN,  
evidence: Locality and restrictions on movement.

Roadmap:

Section 2: Basics of superlatives.

Section 3: Syntactic account for distribution of RIN.

Section 4: Evidence supporting the account proposed.

Section 5: RIN in DP languages.

Section 6: Conclusion and further research.

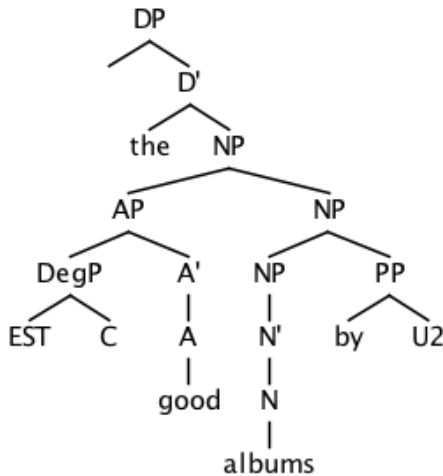
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## 2. Basics of Superlatives

### 2.1 Syntactic Structure of Superlatives

*the best albums by U2* in English.



- AP is NP adjoined. (Corver 1992, Bošković 2005)
- DegreeP is in Spec, AP position. (Bošković and Gajewski 2011)

$[DP\ the\ [NP\ [AP\ [DegP\ EST\ C]\ good]\ [NP\ [NP\ albums]\ [PP\ by\ U2]]]]]$

### 2.2 Semantics of Superlatives

EST:  $\langle\langle e, t \rangle, \langle\langle d, \langle e, t \rangle \rangle, \langle e, t \rangle \rangle\rangle$

$\llbracket EST \rrbracket = \lambda C_{\langle e, t \rangle} . \lambda D_{\langle d, \langle e, t \rangle \rangle} . \lambda x_{\langle e \rangle} . \exists d. s.t. x \in C \ \& \ D(d)(x) = 1 \ \& \ \forall y. y \in C \rightarrow D(d)(y) = 1 \text{ iff } x = y.^2$

$\llbracket best \rrbracket$

$= \lambda x. x \in C, x \text{ is } d \text{ good} \ \& \ \forall y. y \in C \rightarrow y \text{ is } d \text{ good iff } x = y.$

“There is a degree that x in the context is good to the degree of d and all other individuals in the C that is also d good must be the same as x.”

### 2.3 Previous Accounts for Relative Readings

**Pragmatics Account** (Farkas & Kiss 2000, Sharvit & Stateva 2002)

DegP is interpreted within the nominal phrase. Different readings (REX and ABS) are derived by different value of C.

(1) a. John has the best albums by U2.

- In Absolute Reading,  $C = \{Boy; October; War; No\ Line\ on\ the\ Horizon; \dots\}$
- In Relative Reading with NP External Focus,  $C = \{\text{the } U2 \text{ albums that Bill has, the } U2 \text{ albums that Mary has, } \dots\}$

<sup>2</sup> Here I assume that the type of EST is flexible, i.e. can be shifted to  $\langle\langle e, t \rangle, t \rangle, \langle\langle d, \langle\langle e, t \rangle, t \rangle \rangle, \langle\langle e, t \rangle, t \rangle \rangle$  and possibly higher types.

P&T 2012 showed that although REX can be obtained under Pragmatics theory, the RIN cannot. Here I follow their conclusion. For detailed derivation, please see Pancheva & Tomaszewicz 2012.

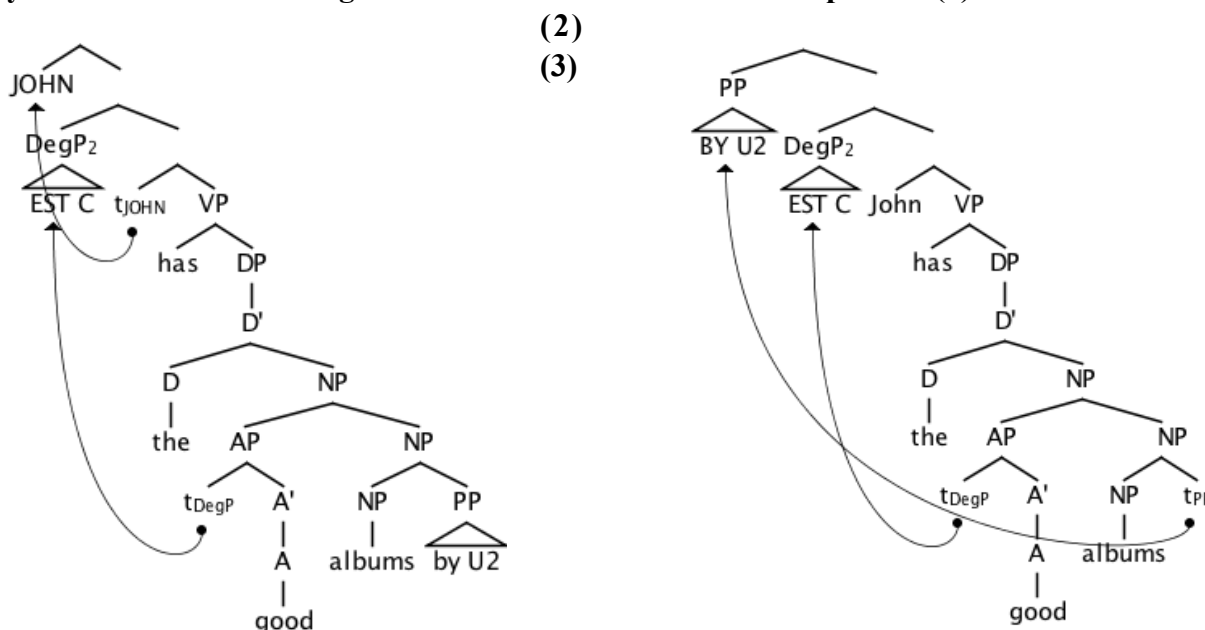
**Movement Account** (Szabolcsi 1986, Heim 1999)

The focus moves to the sentential level and the DegreeP moves below the landing site of the focus. For REX, the subject=Focus moves to the sentential level and DegP moves under it.

**Crucially: only DegP has to move out of the nominal phrase. (2)**

For RIN, the NP internal focus moves out of the nominal phrase to the sentence level and DegP moves under it. (P&T 2012)

**Crucially: both the focus and DegP have to move out of the nominal phrase. (3)**



The only way to attest RIN for sentences like (1) is through the movement account. The cross-linguistic difference in availability of RIN should be linked to cross-linguistic difference in restrictions of the movements. In Polish LF in 4b is available while in English it is not.

**3. Proposal**

I will argue that the cross-linguistic difference regarding the availability of RIN is derived from different NP structures, namely the presence (English) vs. absence (Slavic) of a DP projection (Bošković 2008).

- Slavic languages like Polish, Slovene, and Serbo-Croatian: NP languages without DP projection. (Boskovic 2005, 2008, 2012)
- Dynamic approach of phases (Wurmbrand 2011 among others): highest projection of a domain is a phase. In nominal domain DP is a phase in DP languages, NP is a phase in NP languages.
- Phase-Impenetrability Condition (PIC): movement out of a phase must occur via the edge of the phase. (Chomsky 2000) Edge: specifier of the phasehead and adjoined position to phases.

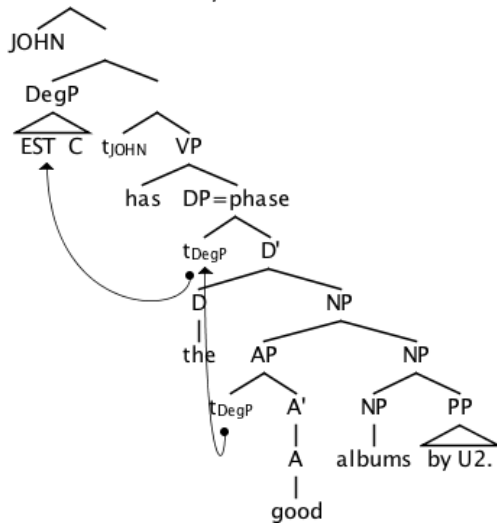
- Anti-Locality: movement must cross at least one maximal projection. (Abels 2003; Bošković 2005)

REX:

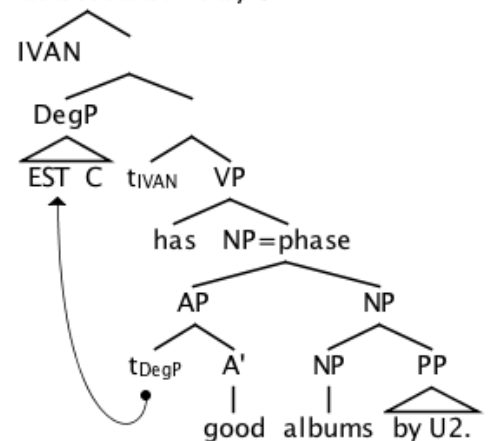
- (4). a. JOHN has the best album by U2. (English: DP)  
 b. IWAN ma naj-lepsze albumy U2. (Polish: NP)  
 Ivan has naj-better.Acc albums.Acc U2.  
 “John has better albums by U2 than others do.”

- For REX, the focus (*John/Ivan*) moves to clausal domain and *DegreeP* moves to a position below.
- In English (4a), DP is the phase. AP is not at the phase edge, so *DegP* must first move to Spec,DP according to PIC.

(4a) JOHN has the best album by U2.



(4b) IWAN has best albums by U2.



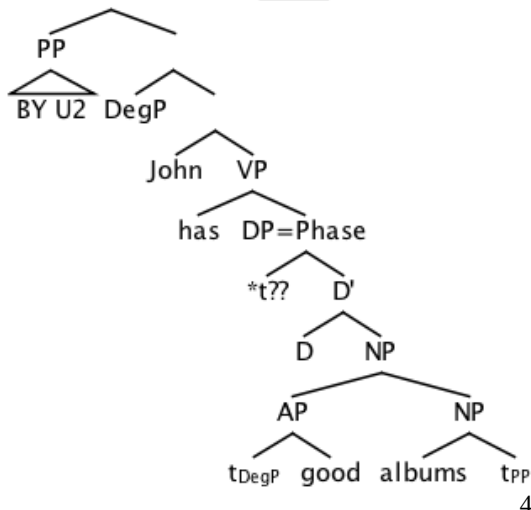
• In Polish (4b), AP originates at the edge of the NP phase and can hence move to the target in

one step.

RIN:

- (5) a. \*John has the best album BY U2 (English: DP)  
 b. Iwan ma naj-lepsze albumy U2. (Polish: NP)  
 Ivan has naj-better.ACC albums.ACC U2.  
 “The albums by U2 that John has are better than the albums by other bands that John has.”

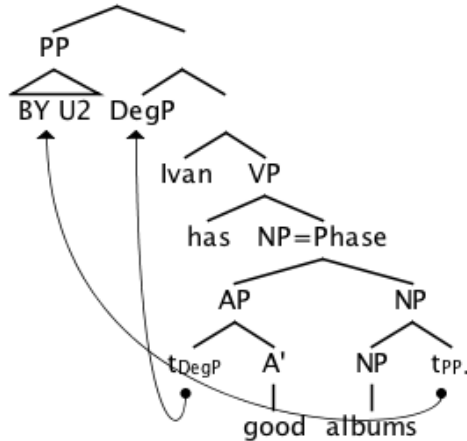
(5a) John has the best albums BY U2.



For RIN, both the focus (*by U2*) and the *DegP* must move out of the nominal domain DP/NP.

In English, PIC: both movements must pass through the phase edge Spec,DP, which can only host one element, hence (5a) is impossible.

(5b) Ivan has best albums BY U2.



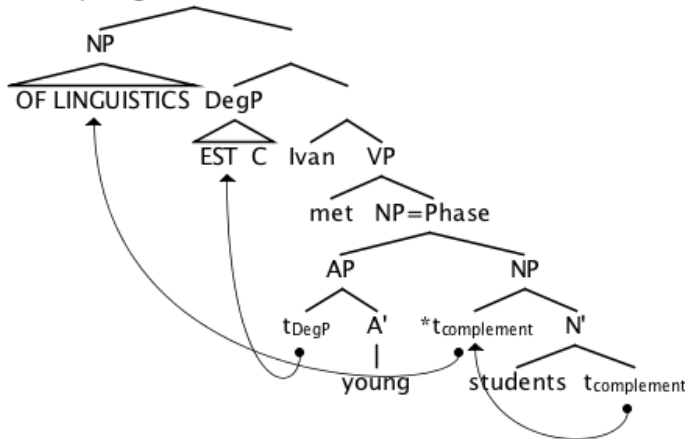
In contrast, in Polish, the focused PP and the AP are both generated at the edge of the NP phase, thus movement in (5b) is allowed, yielding RIN.

### 4. Evidences

#### 4.1 Complement/Adjunct Asymmetry within the NP Languages

A predicted separation within the NP language:

(6) \* Ivan met youngest students OF LINGUISTICS.



only the NP with an **adjunct** as internal focus allows RIN, the NP with an **complement/argument** as internal focus doesn't allow it.

Argument (RIN ruled out PIC/Anti-locality)

- To get RIN, the complement of *students* must move out of NP.
- PIC: This movement must occur via the edge, i.e. spec,NP.
- Movement of the complement of N head to spec,NP violates Anti-Locality (not crossing one maximal projection).

Borne out in Polish and Slovene: (7a) and (8a) are unacceptable in contexts restricted to RIN, while (7b) and (8b) are acceptable.

Polish \_\_\_\_\_

(7) a. \*Iwan poznal [<sub>NP=PHASE</sub> naj-młodszych [<sub>NP</sub> studentów lingwistyki]].

Ivan met [NP=PHASE EST-young [NP students Linguistics-GEN]].

Lit.: “John met the youngest students of Linguistics.”

RIN: “Among the students that Jan met, the highest are of Linguistics.”

b. √ Iwan poznal [NP=PHASE naj-mlodszychw [NP [NP studentow] [PP Z wydzialu lingwistyki]]].

Ivan met EST-youngest students from department linguistics-GEN.

Lit.: “John met the youngest students from linguistics departments.”

Slovene

(8) a. \* Janez je spoznal najmlajse studente lingvistike.

Jan is meet est-young student-PL Linguistics-GEN.

b. √ Janez je spoznal najmlajse studente z oddelka za jezikoslovje/lingvistiko.

Jan is meet est-young student-PL from department of linguistics.

Lit.: “Jan met the youngest students from the department of Linguistics.”

RIN: “Among the students that Jan met, the highest are of Linguistics.”

**4.2 Quantifier Superlatives**

Apparent counterexamples:

(9) Jan spotkał [QP=PHASE najmniej [NP studentów Kowalskiego/biologii]]. (Polish)

Jan met [QP=PHASE fewest [NP students Kowalski.GEN/biology.GEN]].

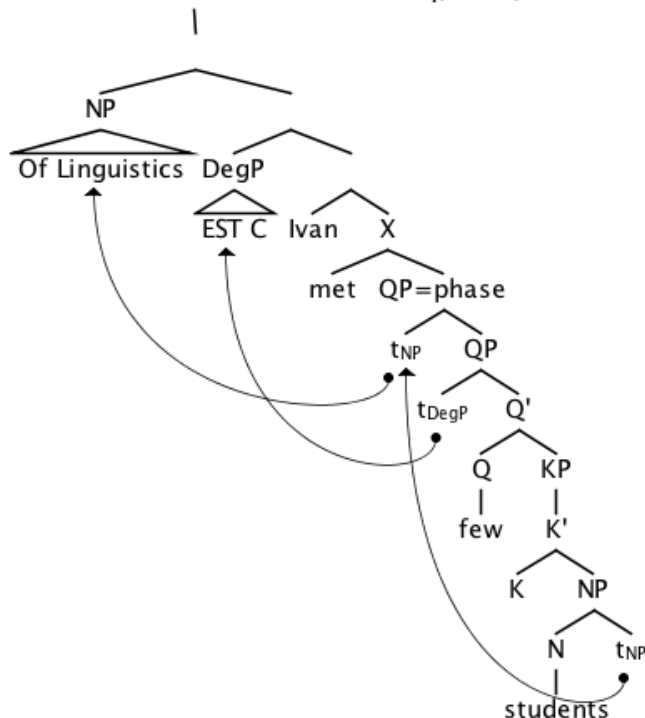
√ REX: “Jan met fewer students of Biology than others did”

√ RIN: “Jan met fewer students of Biology than he did students of other majors”

(Tomaszewicz, p.c.)

Note that here the *fewest* is not an adjective but a quantifier, which has been argued not to be an adjunct to NP but projects higher above NP, i.e. QP. Evidences include binding (Despić 2011; Bošković in press), and complement extraction.

Ivan met the fewest students OF LINGUISTICS. (Polish)



The current account correctly derives the RIN with quantifiers.

[QP=PHASE [EST-C] few [NP [N' students [of Biology]]]]

(10)

- NP stops being a phase and QP is a phase.
- The argument of N, i.e. *of Linguistics*, must move out of the nominal domain for RIN.
- The movement must occur through the edge of the phase, i.e. QP adjoined position.
- This movement crossed a maximal projection, not violating anti-locality.

Further examples:

Scenario: Ivan met with 10 students of Linguistics; 7 students of Chemistry; 6 students of Physics.

- (11) ✓ a. Ivan je sreo najviše studenata LINGVISTIKE. (Serbo-Croatian)  
 Ivan met EST-many students Linguistics-GEN.  
 “Ivan met the most students of Linguistics.”  
 ✓ b. Ivan je sreo najviše studenata sa Odsjeka za LINGVISTIKU  
 Ivan meet est-many students from department of Linguistics.  
 “Ivan met the most students from departments of linguistics.”

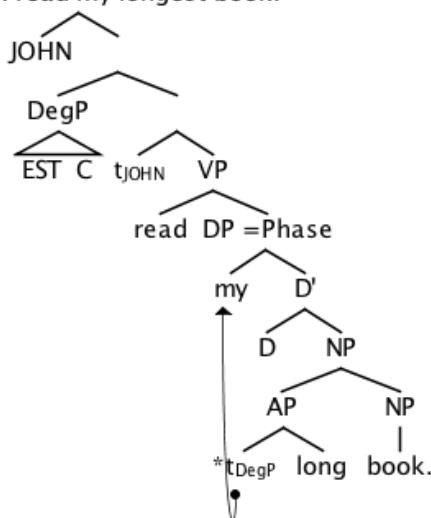
Scenario: Ivan met with 6 students of Linguistics; 7 students of Chemistry; 10 students of Physics.

- (12) ✓ a. Ivan je sreo najmanje studenata LINGVISTIKE.  
 Ivan met EST-few students Linguistics-GEN.  
 “Ivan met the fewest students of Linguistics.”  
 ✓ b. Ivan je sreo najmanje studenata sa odseka za LINGVISTIKU.  
 Ivan met EST-few students from department of Linguistics.  
 “Ivan met the fewest students from linguistics departments.”

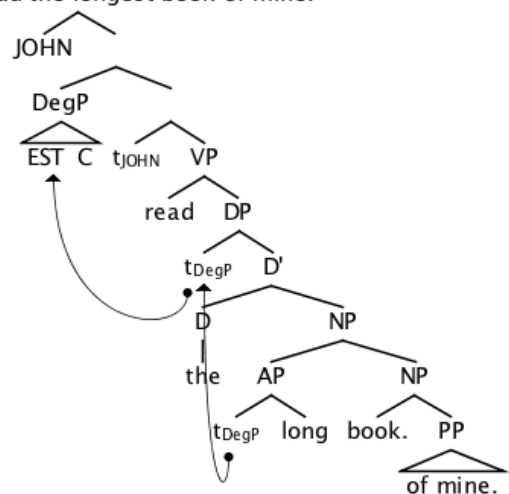
### 4.3 Prenominal Possessor in DP Languages

DP with prenominal possessors only allows the absolute reading, not even REX (P&T 2012). This is predicted by the account proposed here: the prenominal possessor has been argued to be in the

(13a) JOHN read my longest book.



(13b) JOHN read the longest book of mine.



spec, D position. (reference). In that case, DegP

cannot movement out of DP without violating PIC.

- 13. a. JOHN read my longest article. (REX: \*)
- b. JOHN read the longest article of mine. (REX: √)

- To get REX, DegP must move out of DP.
- The movement must occur via Spec, DP.
- In 13a, the Spec, DP is taken, so the LF is unavailable. In 13b, the LF is available.

### 5. RIN in DP Languages

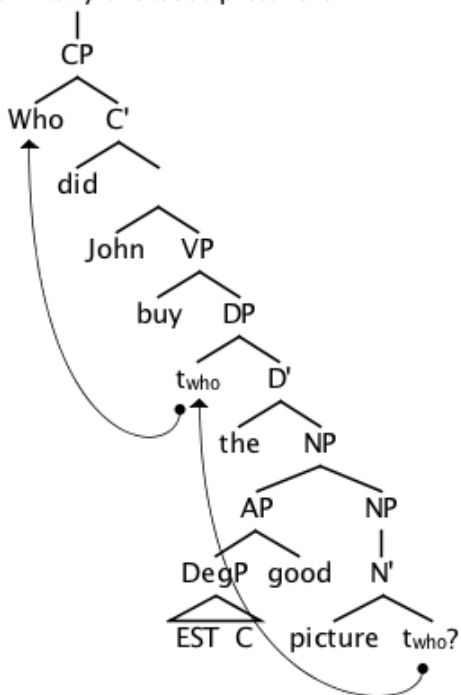
The RIN can be elicited in English/German in sentences where the internal focus is moved overtly to the left periphery as in wh-questions and the fragment answers:

Scenario: A group of amateur photo collectors (John, Bill and Peter) each bought one photo of Fred, Mary, and Ann. The quality of each photo is indicated by the number.

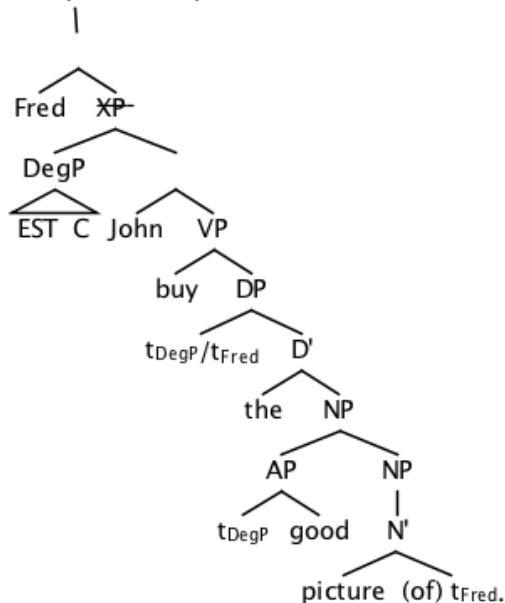
John: Fred - 8	Bill: Mary - 6	Peter: Fred - 9
Mary - 7	Fred - 5	Ann - 3
Ann - 2	Ann - 4	Mary - 2

- (14) a. -Who did John buy the best picture of?

(14a) Who did John buy the best picture of?



(14b) Fred, John buy the best picture of:



- b. -Fred.
- c. - #John bought the best picture of FRED.

Tentative Solution:

(14a): Pragmatic account - after the overt movement of the complement out of the DP, the pragmatic account can work on such structure and attest the RIN.



(14b): PF Deletion - Both *Fred* and *DegP* move out of DP, fielding violation. PF Deletion of the violating part can save the derivation.

## 6. Conclusion and Further Directions

- The syntactic account proposed here derives the distribution of RIN using standard syntactic constraints.
- Alternative semantic accounts require additional assumption about the argument/adjunct distinction.
- The account offered here provides a further support for the movement account since it is not clear how the pragmatics account of relative readings would account for the facts in section 4.

Further Research:

a. Bulgarian.

P&T reports that the RIN in Bulgarian is only possible when there is an overt D, whereas an overt D blocks the RIN. Bošković 2005 argues that Bulgarian is a DP language.

- the definite determiner in Bulgarian is a suffix.
- the definite determiner in superlative constructions are semantically special.
- It could be the case that superlative constructions in Bulgarian do not involve null D in syntax and the blocking effect comes from semantics of D like a demonstrative.
- quantifier superlatives in Bulgarian?

b. Another type of NP languages Chinese, Japanese, Korean

- RIN readings are unavailable in such NP languages.
- No post-nominal complement/adjuncts.
- Pre-nominal modifiers are of free order.

c. Comparative in German and English.

In P&T 2012, the distribution of RIN is accounted for by a ban forbidding *DegP* moving across the definite determiner. (14) and (15) are considered evidences supporting this ban.

- (14) a. John met a taller student than Bill.  
 b. John met a taller student than Bill did.
- (15) a. John met the taller student.  
 b. \*John met the taller student than Bill.

c. \*John met the taller student than Bill did.

d. Quantifier superlatives and Ordinal numbers

- Superlatives in quantifiers involve more interesting readings.
- Ordinal numbers and *first/last* also involve superlatives.

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