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# Approximately and about: epistemic possibility in approximation

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## Abstract

**Aim:** Explain the distribution of the approximator *about*

**Proposal:**

2 forms of *about*

- approximative *about* – indicates speaker uncertainty
- directional (*just*) *about*

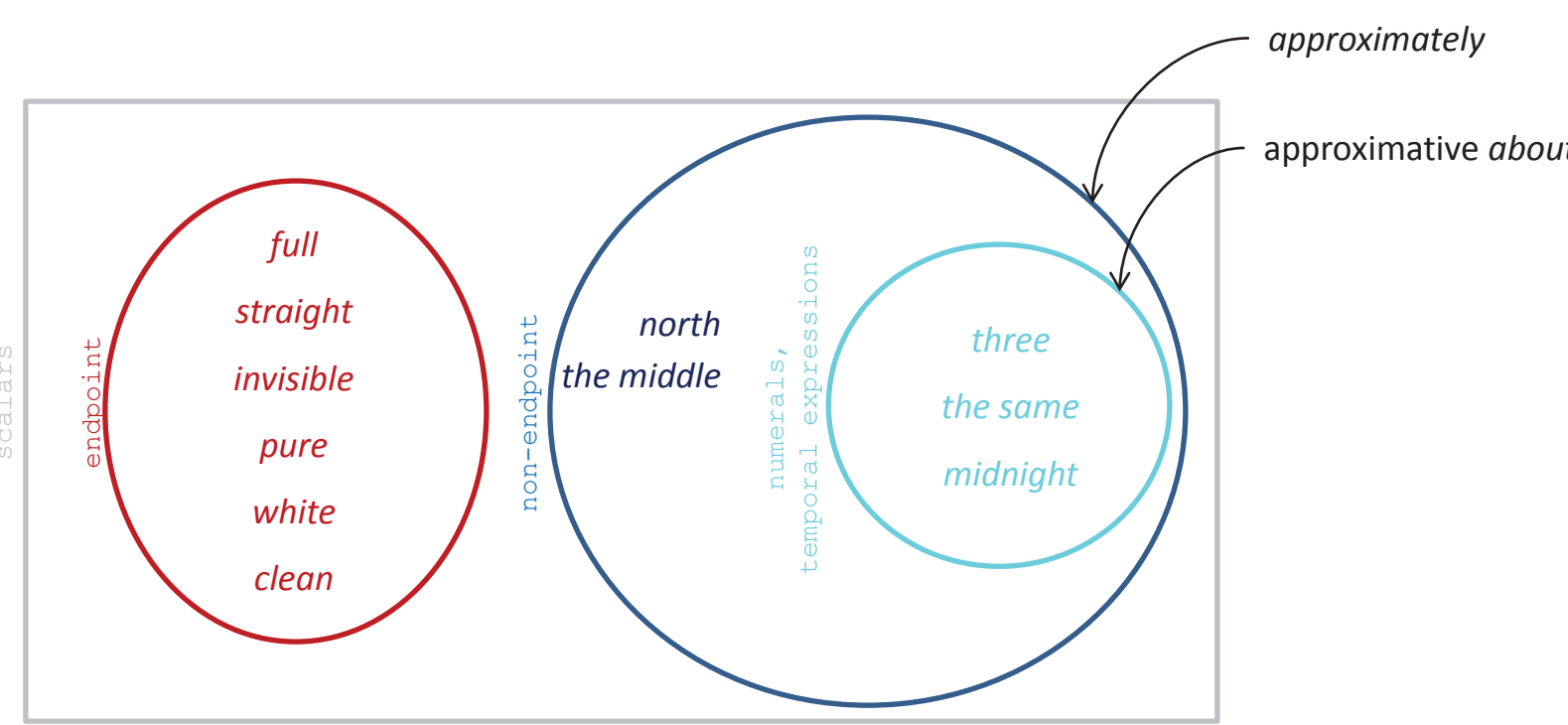
This explains:

- Infelicity in contexts that establish speaker certainty
- Felicity with (some) maximum-standard adjectives

## Expanding on Sauerland and Stateva (2007)

Sauerland and Stateva (2007) claim:

- *approximately* can only combine with non-endpoint expressions (Sauerland and Stateva, 2007, p. 241)
- *about* is restricted to a subset of these expressions, specifically, numerals and temporal expressions (Sauerland and Stateva, 2007, p. 242)



But this characterization of *about* is **not restrictive enough**

- Not all numerals and temporal expressions are felicitous with *about* [Addressed in Column 2]

- (1) a. ?There were about **two** people at the party.  
b. ?He'll arrive on about **Tuesday**.  
c. ?Today is about **Thanksgiving**.  
d. ?The year is about **2010**.

And it is **too restrictive**

- Not all endpoint expressions are infelicitous with *about*  
Especially (some) maximum-standard gradable adjectives (Rotstein and Winter, 2004, a.o.) [Addressed in Column 3]

- (2) a. about **full/empty/straight**  
b. about **?dry/?certain/?closed/#invisible/#pure**

## References

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- Nouwen, Rick. 2006. Remarks on the polar orientation of *almost*. *Linguistics in the Netherlands* 23(1):162–173.
- Rotstein, Carmen, and Yoav Winter. 2004. Total adjectives vs. partial adjectives: Scale structure and higher-order modifiers. *Natural Language Semantics* 12:259–288.
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## Epistemic behavior

To account for the data in (1), I propose that *about* marks approximation and speaker uncertainty

Independent support for *about* as an uncertainty marker:

- Infelicitous when context establishes knowledge – e.g. in (3), *about* (but not *approximately*) is infelicitous where the speaker is assumed to know his own age

- (3) [The speaker is 26 years old, addressee is seeking a 25-year-old]  
I'm approximately/?about/#maybe 25.

- Interacts epistemically with epistemic predicates *might* and *seem* – e.g. in (4), *about* (but not *approximately*) gives rise to modal concord readings (Geurts and Nouwen, 2007, a.o.)

- (4) John is about six feet tall.  $\approx$  John might be about six feet tall.  $\approx$  John seems about six feet tall.

- (5) John is approximately six feet tall.  $\not\approx$  John might be approx'y six feet tall.  $\not\approx$  John seems approx'y six feet tall.

If certainty is established, *about* contrasts with *approximately*

- (3a') You think two people came? Actually, three people came, but I guess...  
a. there were *approximately* two people at the party.  
b. ?there were *about* two people at the party.

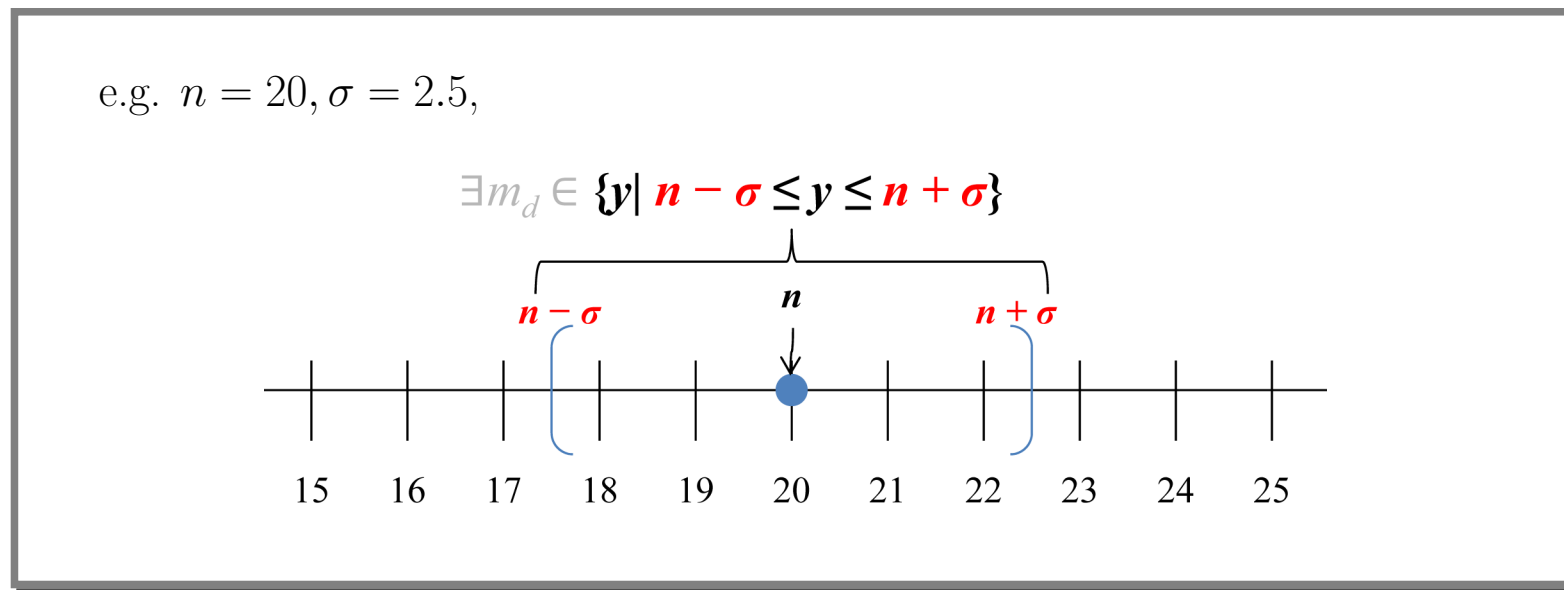
- (3b') You think he'll arrive Tuesday? He'll actually arrive on Monday, but I guess...  
a. he'll arrive on *approximately* Tuesday.  
b. ?he'll arrive on *about* Tuesday.

- (3c') You think today is Thanksgiving? It's November 30th, but I guess...  
a. today is *approximately* Thanksgiving.  
b. ?today is *about* Thanksgiving.

- (3d') You think the year is 2010? It's actually 2013, but I guess...  
a. the year is *approximately* 2010.  
b. ?the year is *about* 2010.

Proposal: *about* expresses that the uttered numeral is possible (implies speaker uncertainty)

- (6)  $\llbracket \text{approximately} \rrbracket = \lambda n_d. \lambda D_{\langle dt \rangle}. \exists m_d \in \{y | n - \sigma \leq y \leq n + \sigma\} \ \& \ D(m)$   
'*D* is true of some degree *m* that falls within some contextually-determined distance  $\sigma$  from the uttered degree *n*'

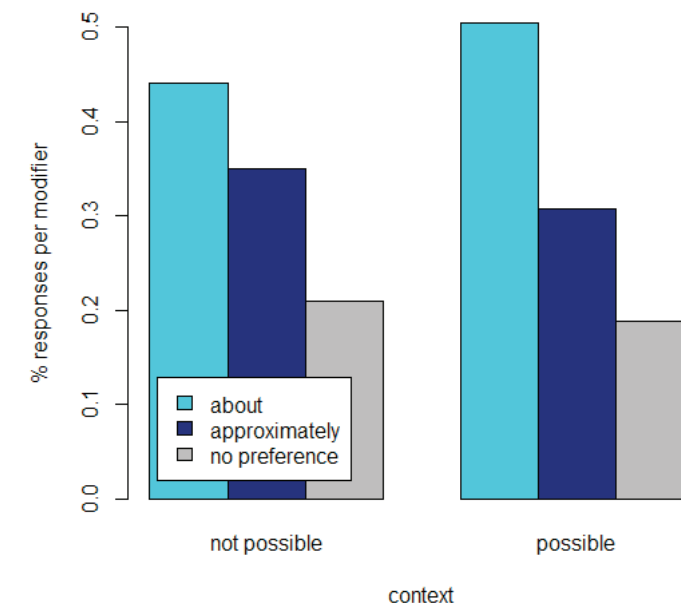


- (7)  $\llbracket \text{about} \rrbracket = \lambda n_d. \lambda D_{\langle dt \rangle}. \exists m_d \in \{y | n - \sigma \leq y \leq n + \sigma\} \ \& \ D(m) \ \& \ \diamond D(n)$

Cf. Sauerland and Stateva (2007), where both  $\llbracket \text{approximately} \rrbracket$  and  $\llbracket \text{about} \rrbracket$  adjust scale granularity to 'coarsest'

## Testing $\diamond D(n)$

- Asked to choose *about/approximately/no preference* in sentences like (3') vs. sentences where the uttered numeral was possible.
- Showed preference for *about* in the 'possible' contexts
- But still accepted *about* in 'not possible' contexts!
  - Interpreted as general hedge?
  - Interpreted as backing off from previous commitment?
  - See conclusion



## Directional *about*

When *about* occurs with maximum-standard adjectives, it is actually *just about* I call this 'directional *about*', as opposed to the 'approximative *about*' in Column 2

*Just about* is an '*almost* modifier' (cf. *almost, virtually, nearly, damn near, pretty much, not quite, and just about* (Morzycki, 2001))

*Almost* modifiers are felicitous with maximum-standard gradable adjectives

- (8) a. just about full/empty/straight  
b. just about dry/certain/closed/invisible/pure

*Almost* modifiers have both a proximal and a polar component (Nouwen, 2006)

- (9) The glass was just about full.  
a. Proximal – The glass was close to being full  
b. Polar – The glass was not full

- Polar component is not prominent, as can be seen in the infelicity of (10a) (cf. (10b))

- (10) a. #Fortunately, the glass was just about full when it fell.  
b. Fortunately, the glass was not full when it fell.

*About* patterns like *just about* when modifying maximum-standard adjectives

- (11) The glass was about full.  
a. Proximal – The glass was close to being full  
b. Polar – The glass was not full

- Polar component is not prominent

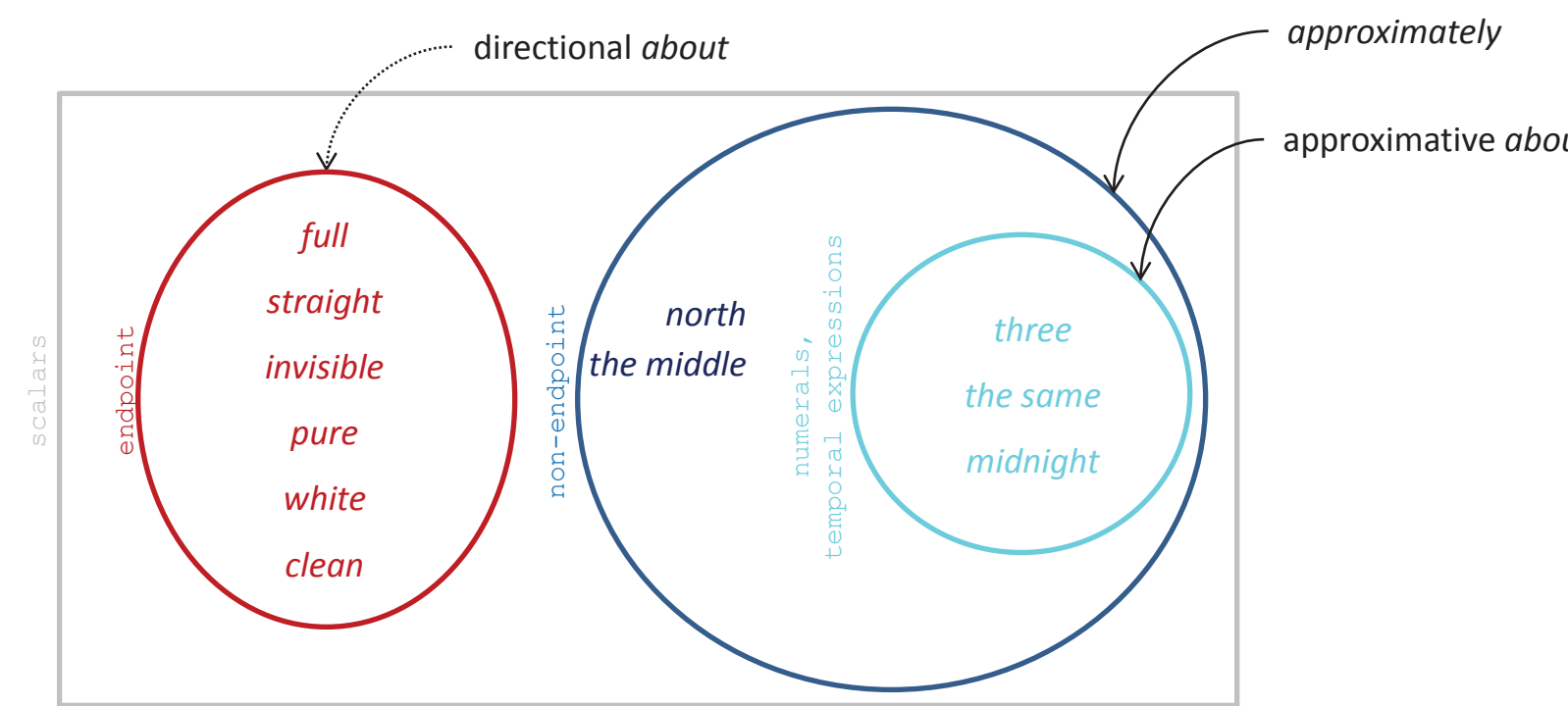
- (12) a. #Fortunately, the glass was about full when it fell.  
b. Fortunately, the glass was not full when it fell.

Note – approximative *about* lacks a polar component

- (13) a. almost ten  $\rightarrow$  not ten  
b. just about ten  $\rightarrow$  not ten  
c. about ten  $\not\rightarrow$  not ten

Proposal: *about* is the *almost* modifier *just about* with a phonologically null *just*

The ability to drop *just* appears somewhat conventionalized – (2b) vs. (8b)



## Conclusions

Sauerland and Stateva (2007) analysis does not account for (1) and (2)

- These data highlight
  - Epistemic contribution of *about* (approximative *about*)
  - Separate covert-*just* form of *about* (directional *about*)

But – is the epistemic contribution of *about* really an entailment?

cf. other epistemic expressions like *I might be 25, I am at least 25*

- Expresses that the uttered numeral is possible  
*[The speaker is 26 years old, addressee is seeking a 25-year-old]: I'm {?about/?at least} 25.*
- But does not allow direct denial of this content  
*#You're wrong, you know you're not 25.*
- Does not exhibit the projection behavior of presuppositions or CIs  
*It's not the case that I'm {at least/about} 25.*