Ambiguity and vagueness in English: speakers vs. linguists

Ambiguity and vagueness in English: speakers vs. linguists:

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Outline of talk

- Introduction
- Ambiguity vs. vagueness
- Linguists' assumptions
- Stepwise change of word class
- Prefabs and multi-word units
- Closing remarks

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Intro

Full disclosure

- Talk draws on presentation at workshop on psycholinguistic perspectives on history of English
- Round table will help me with chapter on 'Ambiguity and vagueness in historical change' (in prep.), to be paired with one by Claudia Felser
- Talk also draws on my work on linguistic change in English, especially concerning word classes and word class boundaries

Hundt, Mollin & Pfenninger (in prep.); Denison (various); Felser (in prep.)

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Participants

- SP/W = speaker/writer
- AD/R = addressee(s)/reader
- Historical linguist is also R for written data, but
  - potentially more knowledgeable than intended readership
  - probably ignorant of cultural and pragmatic facts obvious to contemporary reader
  - ≈ normal AD for recent audio broadcast or telephone data (but can listen repeatedly)
  - with audio conversational data, probably lacks non-verbal communication available to actual AD
- Psycholinguist: highly peculiar SP/W and[??] AD/R!

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Ambiguity and vagueness

Incomplete knowledge

- Ambiguity
  - AD/R cannot be sure which of two (or more) analyses was intended by SP/W, and something hangs on choice.
  - Uncertain analysis may concern (e.g.) lexical semantics, syntactic structure, lexeme boundaries.
- Vagueness
  - Linguistic analysis in some respect underdetermined, equally for SP/W and AD/R
  - No further info needed for interpretation

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Psychological difference

- Relevant kind of vagueness concerns properties normally specified (otherwise would be unlimited).

- *A priori*, vagueness less costly psychologically than ambiguity
  - ambiguity: AD/R may need to explore alternatives – though evidently they often don't
  - vagueness: no need to back up and try again

Traugott & Trousdale (2013: 199-200), Felser (in prep.)

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Bridging context

- More than one interpretation of word possible in context, possibly only subtly different
- 'Wrong' selection by AD/R (≠ SP/W's intention) →
  - unrecognised misunderstanding, often harmless
  - linguistic innovation = actuation of potential change
- By definition, must arise from ambiguity, not vagueness.

Evans & Wilkins (1998; 2000: 549-50), Diewald (2002), Heine (2002)

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Bridging contexts: example 1

- Classic example: early history of *still* adv.
  2. 'motionless' (OE-)
  3a. 'without change' (ME-?lModE *obs.*)
  4a. 'now as formerly' (1535-)
- Bridging context:
  One generaciõ passeth away, another commeth, but the earth abydeth still. (1535, not *OED*)
- Reasonable to invoke ambiguity here, but can bridging contexts involve vagueness too?

OED Online, OED Dictionary Browser

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Bridging contexts: example 2

- *discrimination* n.
  neutral: 1a. The action of perceiving, noting, or making a distinction between things 1621-
  †3. The fact or condition of being differentiated. (1666-1867)
  positive: 4. The power or faculty of [...] of making exact distinctions; discernment. (1764-)
  negative: 6. orig. *U.S.* Unjust or prejudicial treatment of a person or group, esp. on the grounds of race, gender, sexual orientation, etc. (1819-)
  So long as the North treats the negro workman with blighting discrimination [...] (1906)

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Bridging contexts: example 2

- In basic sense 1a, semantics of *discrimination* carries no value judgement – so is vague in that respect
- Invited inference that *discrimination* is good (sense 4) or bad (sense 6) would belong to pragmatics and involves context and collocation.
  - e.g. via ellipsis of *against*-PP or of a premodifier like *racial* for sense 6.

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Linguists' assumptions

Modularity, constituency

- Common assumptions:
  - modular architecture
  - centrality of syntax

  - binary branching
  - no crossing branches (no discontinuous constituents)
  - single mother (no multiple inheritance)

Elegance and economy

- Further assumptions:
  - grammaticality is binary: yes or no

  - a grammar must be internally consistent
  - every word in every grammatical sentence belongs to one and only one word class
  - parsimony: avoid alternative ways of deriving grammatical sentences or blocking ungrammatical ones
  - the fewer rules needed to account for some data, the greater the explanatory power

Which theories assume this?

- MIT-style generative grammar – or unfair to recent work?
- many other formal approaches (apart from centrality of syntax)
- much structuralist grammar

Networks rather than trees

- Cognitive Grammar, Construction Grammar (many flavours), ?Théorie des opérations énonciatives generally reject
  - modular architecture
  - centrality of syntax

- Dependency Grammars, Word Grammar reject
  - binary branching, no crossing branches, one mother
  in favour of networks

The edges of grammaticality

- Usage-based work rejects
  - grammaticality is binary: yes or no
- Acceptability is gradient, contingent on such factors as context, priming, discourse rather than isolated sentences, creativity, exposure to prescriptive ideas.
- Linguistic knowledge may be probabilistic.
- I reject
  - every word in every grammatical sentence belongs to one and only one word class

Gahl & Garnsey (2006); Bresnan (2007); Sampson & Babarczy (2014); Denison (in prep. a: Ch. 1)

Diseconomy

- I mistrust as psychologically implausible
  - parsimony: avoid alternative ways of deriving grammatical sentences or blocking ungrammatical ones
    - the fewer rules needed to account for some data, the greater the explanatory power
- More plausible that actual behaviour is additive: usage (SP/W) or analysis (AD/R) more likely, the *more* factors conspire to support it

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Messiness of grammar

- I mistrust (but on largely anecdotal evidence):
  - a grammar must be internally consistent
- Speaker grammar allows inconsistent fragments.

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Stepwise change of word class

Well-studied type: N → Adj

- Nouns (esp. recently) may develop Adj usage alongside existing N distribution:
  - *fun, key, ace, amateur, apricot, core, bandaid, cardboard, champion, corker, cowboy, dinosaur, draft, freak, genius, killer, landmark, luxury, niche, pants, powerhouse, rubbish, surprise, Velcro …*
- N and Adj are distinct word classes with some properties in common.

Denison (2013; in prep. a)

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	N	Adj
X takes D as dependent	+	?–
XP can be subject, direct object, indirect object, complement of preposition	+	–
X can postmodify N	–	+
X takes intensifier as dependent	–	+
X can premodify N	+	+
XP can be predicative complement	+	+
[various features characteristic of V, e.g. tense]	–	–
[various features characteristic of other PoS]	–	–
X inflects for plural	+	–
X inflects for genitive	+	–
X can be marked for comparative and superlative	–	+

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Syntactic 'bridging contexts'

- Adj **Premodifier of head noun**: N or Adj
  - Gold is real money and paper is pretend money. (1974, OED)
  - That's why inflation money is false purchasing power. (1946, WebCorp) N
- **Predicative complement** (N only if mass noun or plural):
  - N a third of the pictures are beautiful, but I think two-thirds of the pictures are fakes (BNC) N or Adj   Adj
  - His gentleness was fake (BNC)
- Word class underdetermined in these syntactic contexts (though may be known from distribution elsewhere)

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Early history of *core*: only N

- Certain frequent collocations place *core* in pre-modifying function, a syntactic bridging context:

    'Shall there be a core curriculum in secondary schools?': a symposium. (1935, *OED*)

    in relation to our guiding ethical principles and core values and laws in American democracy (1975, COCA)

    the core ideas of Jung and LeviStrauss (1982, COCA)

- It remains N, even here.
- Acquisition of Adj behaviour is generally step-wise rather than all at once.

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	N	Adj
X takes D as dependent	+	?–
XP can be subject, direct object, indirect object, complement of preposition	+	–
X can postmodify N	–	+
X takes intensifier as dependent	–	+
X can premodify N	+	+
XP can be predicative complement	+	+
[various features characteristic of V, e.g. tense]	–	–
[various features characteristic of other PoS]	–	–
X inflects for plural	+	–
X inflects for genitive	+	–
X can be marked for comparative and superlative	–	+

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Word order

- Modifying adjectives usually precede modifying nouns
    - Modifying N before Adj only if Adj is a classifier

Determiner   Adjective(s)   Modifying Noun(s)   Head Noun

D	Adjective zone	Modifying noun zone	Head noun
a	big	tourist	attraction
a	garish big expensive	London tourist	attraction
*a	tourist	big	attraction

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core: Adj too (not intended to show chronology)

- **Before a non-classifier Adj**:
    once you get away from the core big jobs in government -- like the President, his staff [...] (1991, COHA)
    Tackling these jobs beyond Europe should be a core new mission of NATO (2003, COHA)
- **With intensifier**:
    Anything that was so core to the election (1995, COCA)
    It is very core to our program strategies (2011, web)
- **In comparative or superlative**:
    in my life and my most core beliefs (2007, COCA)
- **As post-modifier**:
    there is something central, something core, in everyone's experience of shame (2004, WebCorp)

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Mixed community

- During period of transition, three groups of speakers:
    - Group 1 (most conservative): only have *core* = N
    - Group 2: *core* = N and *core* with some but not all Adj properties (perhaps to be differentiated further)
    - Group 3 (most advanced): *core* = N **and** *core* = Adj
- Can produce as SP/W (and accept as AD/R):

	Examples that must be N	Examples that could be vague N ~ Adj (but N for group 1)	Examples that must be Adj
Group 1	+	?+	–
Group 2	+	+	?
Group 3	+	+	+

Denison (2010; 2013)

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Word class may depend on SP/W

- Typical example of *core* in 'bridging context':
    [...] to include only core academic content (2006, COHA)
- For Group 1 SP/W, example contains *core* as N.
- For Group 2 or 3, vague between N and Adj.
    - SP/W and AD/R in these groups don't need to decide.
    - For AD/R, cf. 'good enough' analysis in psycholinguistics
    - Distinction for linguist would be arbitrary. No semantic or structural ambiguity. Choice only affects labels.

Christianson et al. (2001), Ferreira et al. (2002), Ferreira & Patson (2007), Felser (in prep.)

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Can word class be vague?

- "No"

  There is no evidence I am aware of that SPs/Ws create underspecified syntactic representations. (Claudia Felser, p.c.)
- "Problematic"

  Re underspecification, the problem I see is a logical one. [...] In other words, every time you assume underspecification you assume a supercategory which may well conflict with other supercategories. Either that's a strong testable hypothesis (and you'll never actually need conflicting supercategories), or it's wrong. (Dick Hudson, p.c.)
- Response to Hudson
  - Possible conflicts so far involve Adj (with N, D, V, Adv), and some with Pronoun and Modals – if separate word classes.

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Can word class be vague?

- "Maybe"
  - Partial underspecification is compatible with rule-based, compositional models (Paul Kiparsky, p.c.)

  [...] even if [such words as *fun*] are underspecified in the mental lexicon, it's also possible that they always get fully specified in actual sentences. I don't see any way to decide between these possibilities on the basis of linguistic evidence. Perhaps there could be psycholinguistic experiments?' (Kiparsky, p.c.)
- Response:
  - Challenge idea that every word in sentence must be assigned unique word class in linguist's grammatical representation.
  - Query whether SP/W's mental grammar must use word classes, and if so, whether must always specify them.

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Is word class always stored?

- Proper names can appear in Adj-like contexts:

  It's very silly, it's very odd, it's very Woody Allen. (2008)

  This is so Woody Allen. Neurotic as ever and so on top of his game. (2000)
- Counter-intuitive to suggest that speakers store *Woody Allen* and any other name as both (Proper) Noun and Adj 'just in case'.
  - Note anaphora in last example.
- Better interpretation: 'wrong' word class coerced by construction.
- Word class as epiphenomenon in Construction Grammar

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Prefabs, multi-word units

Lexeme boundaries

- A word class must be assigned to a word (lexeme).
- Can knowledge of extent of lexeme be incomplete in
  - mental lexicon?
  - linguist's grammar?
- Non-compositional *a lot of* as unit vs. modification of *lot* (*a whole lot of*)
- Many overlapping prefabs in the *sort of* family:
  - *kind of, all kinds of, what kind of, those sort of, sort of thing*, etc.

  Traugott & Trousdale (2013: 27), Bybee & Beckner (2014: §3.3)

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Complex prepositions in PDE

- Should strings like *by dint of, in front of, on behalf of* be analysed as a single lexeme (a complex preposition) or as separate words with internal structure?
- The *Cambridge Grammar* argues for separate words except for the few cases where there is no evidence at all for the separate analysis, e.g. *dint*, which is hardly used as N.

  Huddleston & Pullum (2002: 618-23)

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Complex prepositions in ModE

- *Behalf* analysed as N, head of NP:

  on behalf of his country (PPCMBE)

  $[_{PP} [_{P} on] [_{NP} [_{N} behalf] [_{PP} [_{P} of] [_{NP} his country]]]]$

- Justified by varied distribution of *behalf* in PPCMBE (1700-1914)
- Same analysis in *Cambridge Grammar*, citing alternations like

  on his country's behalf

- but PDE ≠ 18-19C English

Pattern	N
in behalf of X	6
in the behalf of X	2
in X's behalf	6
in that behalf	16
on behalf of X	11
on the behalf of X	1
on X's (own) behalf	6
Total	48

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Complex prepositions

- Alternative analysis as $[_{P}$ *on behalf of*$]$ supported e.g. by
  - infrequency of interruption
  - possibility of substitution
  - different distribution of *on behalf of X* and *on X's behalf* (common nouns vs. proper nouns or pronouns)
- Choice affects word class but structure too
- Both analyses available to AD/R
- Ambiguity or vagueness? Very little hangs on choice.

Hoffmann (2005), Denison (2010: 118-22), Bybee & Beckner (2014: §3.3)

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Closing remarks

Problems and questions

- For historical linguist:
  - Ambiguity and structural change needs more work.
  - Differentiating ambiguity and vagueness in their diachronic effects and historical stability?
  - How to constrain vagueness to relevant properties
  - Perhaps need functions like attribute and classifier rather than, or as well as, word class categories like N and Adj.
  - Striking frequency in recent decades of N > Adj transitions. Perhaps type frequency relevant after all? (cf. 'gang effect')

Bolinger (1967), Denison (2013: 174), Bybee & Beckner (2014)

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Problems and questions

- For psycholinguist:
  - What is known about (real) speaker grammar?
  - Are mutually inconsistent parts of grammar possible?
  - Are word classes a necessary prerequisite for using language?
  - If so, is vagueness as to word class possible for speakers?
  - Is underspecification (vagueness) in general possible?
  - Is there psycholinguistic evidence for my groups 1, 2 and 3?

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References

On handout, and also
Slides from presentation + references will be on
http://tinyurl.com/DD-download

work-in-progress
comments very welcome, but please don't quote

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