MANCHESTER
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Underspecified categories, supercategories, or no categories?

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Status of word classes

- In most theories
  - word class is a primitive
  - every word in every grammatical sentence belongs to one and only one word class.
- In many Construction Grammars
  - word class is epiphenomenal
  - but word classes appear in syntactic descriptions.
- A programmatic paper, starting from word classes used for English in the *Cambridge Grammar*.

Plan

1. Ambiguity vs. vagueness
2. Stepwise change of category
3. Supercategories
4. Decategorialisation
5. An alternative view of categories

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1.1 Intro

- *Cambridge Grammar*: conventional word classes adjusted to capture distributional facts better.

I haven't seen him <u>since</u> $\begin{cases} \phi \\ \text{Tuesday} \\ \text{he resigned} \end{cases}$

  - All these uses of *since* are P (not Adv, P, Cj).

- Classes justified on basis of **morphosyntax**.
- Language-particular. 'Methodological opportunism'?

Huddleston & Pullum (2002), Croft (2001: 30), Haspelmath (2010)   5

1.2 Word class ambiguity

<u>Visiting</u> relatives can be boring.

- *visiting*
  - adjectival participle modifying *relatives*
  - verbal *-ing* (gerund) governing *relatives* as object

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1.3 Word class vagueness

- Some speakers can use *fun* either as <u>N</u> or <u>Adj</u>

a. And I'm like, " I don't really do things that are really that fun. The ultimate fun is doing nothing. (2000, COCA)

b. So you must have had fun doing this. I mean, this is just really -- it's very silly and very fun (2002, COCA)

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Word class vagueness

- For such a speaker, in **unambiguous** sentence

  It was <u>fun</u>.

  word class of *fun* is underspecified but constrained.

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2. Stepwise change

- Word classes defined by basket of properties, not all necessary and sufficient.
- Some word classes share distributional properties.
- Word moving from one to other need not acquire entire distribution of new category at once.
- Evidence:
  - lexical diffusion
  - distributional variation
  - inter-speaker variation

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2.2 N > Adj

Coding and behavioural properties	N	Adj
X takes D as dependent (*the man, some people*)	+	?–
XP can be subject, direct object, indirect object, complement of P	+	–
X can postmodify N (*a politician greedy for power*)	–	+
X takes intensifier as dependent (*very big, so dangerous*)	–	+
X can premodify N (*bad habits, coal strike*)	+	+
XP can be predicative complement (*be a pest, be happy*)	+	+
[various features characteristic of V, e.g. tense]	–	–
[various features characteristic of other PoS]	–	–
X inflects for plural (*three strikes, the children*)	+	–
X inflects for genitive (*the boycott's impact*)	+	–
X can be marked for cp and superlative (*heavier, more dangerous*)	–	+

adapted from Denison (2013: 160)   11

Underdetermined: N ~ Adj

- Attributive position

  ... he reeled through four savage rounds before he got the <u>killer</u> punch ... (1982, COHA)

  - *killer* 'very effective; excellent, "sensational"'

- Predicative position (non-count only)

  The directors are denying any knowledge of this and the report originated in the Star so it could be <u>rubbish</u> (BNC)

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Test: postmodification

Each track has something <u>killer</u> on offer (2013, via WebCorp)

Adler believes in filling your surroundings with all things <u>fun</u> and [j]oyful, ... (2005, COCA)

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Test: derivation

- *-ly* suffix to form Adv only added to Adj
  - one exception: *partly*

  The concept of his art is inherently hard to put into words. But most commonly (and <u>amateurly</u> put), Turrell's Skyspaces can be described as ... (2013, via WebCorp)

  Trying to explain the ferry system very <u>draftly</u> (2015, via WebCorp)

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Adj properties arrive stepwise

- Corpus data
- Informant testing
  - Postmodification with *rubbish* better than comparison
  - Age-graded reactions to *fun* in (a-c):

a. Doing something <u>fun</u> like redecorating your room ... (1951, *OED*)

b. And they are so <u>fun</u> to eat! (1979, COHA)

c. Walking and looking is boring. Touching is <u>funner</u>. (1990, COCA)

2.2 Adj > D

Coding and behavioural properties	D	Adj	N	Prn
lexical rather than grammatical	–	+	+	–
can iterate	–	+	(–)	–
number marking	(–)	–	+	+
nominative-accusative marking	–	–	–	+
comparison	–	+	–	–
can act as predicate	–	+	–	?

Huddleston (1984), Huddleston & Pullum (2002), Kayne (2007, 2002 ms), Aarts (2007: 86-7)

Examples of *various* in *OED*

One whose conversation was so <u>various</u>, easy, and delightful. (1852)

- sense 7.a. '[e]xhibiting variety of subject or topic'
- purely lexical sense, typical Adj, ? obsolescent

Dr. Jackson..is very careful in marking all those <u>various</u> effects produced from similar causes. (1805)

- sense 8.a. 'of different kinds'

Various

The eyeball is moved in <u>various</u> directions by six muscles. (1879)

- sense 9, 'In weakened sense, as an enumerative term: Different, divers, several, many, more than one'
- sense close to quantifier, more typical of D.
- *OED* note: "It is not always possible to distinguish absolutely between this sense and 8, as the meaning freq. merges into 'many different': cf. DIVERS *adj.* 3."
- Semantics and syntax go hand in hand
  - difficult to find explicit formal differences

Test: partitive construction

- Only D can appear in this construction:

a. He went about the town on foot, called on <u>various of the sovereigns</u> at their hotels (BNC)

b. [...] crime being behaviour that breaks <u>certain of the rules</u> of society (BNC)

- Both *various* and *certain* described as 'somewhat marginal members of D'
- Subtle, incremental semantic changes in *divers(e)*, *several, certain* and *various*
- Syntax change, leftward movement (if it shows)

H & P (2002: 392, 539), Denison (2006), Breban (2006a,b, 2008, 2010a,b,c, 2011, 2012, 2014)

2.3 V > P

- Forms such as *concerning, considering, during, given, granted, including, regarding, following*

  In the years <u>following</u> the publication of the General Theory, doubts started to be expressed about [...] (BNC)

- Underdetermined: V (subject = *years*) ~ P (like *after*)

  <u>Following</u> a general strike and calls for his resignation, the President was arrested on 26 March by fellow army officers. (BNC)
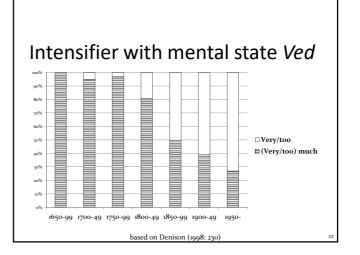
- P

Aarts (2007: 145-50), Kortmann & König (1992), Olofsson (1990)

2.4 V > Adj

a. One night she brought him to see a horror film about the Living Dead, and he was so <u>frightened</u> by the zombies that he fled into the foyer in a panic. (BNC)

• is verbal (dynamic, *What happened to him was ...*)

b. Although he was nine years old [...], Frankie was still <u>frightened</u> of the dark. (BNC)

• is adjectival (statal, can be modified by *very*)

c. They were <u>frightened</u>. (BNC)

• is unclear without further context

Huddleston & Pullum (2002: 1437-9), Visser (1963-73: II 1224-5), Denison (1998: 229-30)

Intensifier with mental state *Ved*

based on Denison (1998: 230)   22

Intensifier with mental state *Ved*

-ed	1830-1859	1860-1889	1890-1919	1920-1949	1950-1979	1980-2009
very	0.15	0.51	1.49	3.56	6.35	6.59
(very) much	14.18	17.43	13.37	7.96	3.19	0.81
Total	14.33	17.94	14.86	11.52	9.54	7.40

• Vartiainen's figures (COHA, normalised per 1m words)
• Confirms replacement of *(very) much* by *much* from late 19C/early 20C
• Vartiainen notes use of both modifiers by same author.

Vartiainen (2016: 52, Table 9)   23

Reanalysis & statistical change

• Adjectival use developed out of verbal use.
• Thought to be different, so "must" be reanalysis.
• Then what kind of change is seen in chart?
  • continuing reanalysis of V as Adj?
  • changing preference between two pre-existing structures?
  • diffusion through lexicon of preference for Adj?
    • NB. V and Adj use may co-exist for same speaker
  • steady increase in preponderance of states over events?
    • surely unlikely, though possible genre/corpus effect
  • gradual change in correlation between particular syntactic structures and particular semantic interpretations?

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Test: complement of *seem*

• Verbal participles cannot occur in complement of *seem, appear, remain,* etc.

a. She seems <u>happy</u>.   Adj
b. *She seemed <u>arrested</u> by the police.   V
c. She seemed <u>interested</u> in art.   Adj

• Often used as knockdown test for Adj.
• Adj very different from V.

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Test not reliable

• Many examples of *seem* + verbal *Ved* up to early 20C.
• Sporadic examples appear in PDE:

The article "Music for the senses" (21 October) appears <u>based</u> on the hoary old assumption that anything which can make waveforms can make music. (1995, *New Scientist*)

[...] and God's absolute freedom would seem <u>secured</u>. (2000, Eagleton)

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Gradient from V to Adj?

A *He had taken it*   **V**

B *He was killed by Tom* – 'slightly less verbal than A with respect to its complementation'

C *a rarely heard work by Purcell* – 'much less verbal still by virtue of the severe restrictions on permitted dependents' but 'less adjectival than D because it cannot occur as predicative complement'

D *a broken vase / it seemed broken* – 'less adjectival than E because it is ungradable'

E *a worried man / He seemed worried*   **Adj**

Huddleston (1984: 324); cf. Svartvik (1966). Aarts (2007: 67, 178-80)   27

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3. Supercategories

How to solve boundary issues

- Solve problems of demarcation by lumping some categories together in supercategories?
- Majority of my examples of stepwise change involve overlap between Adj and some other class.

   Interestingly, adjectives emerge […] as the most versatile in being capable of resembling the syntactic behaviour of the other categories. (Aarts)

- Abolish category Adj and subsume its members under N, V, Adv, and so on?

Aarts (2007: 239)   29

Against abolishing Adj

- Perverse to abolish Adj when – if anything – Adv is derived.
- If treat Adj and Adv as a single class, then would have boundary problems with N, V, P as before.
- And not all boundary problems involve Adj.

Giegerich (2012)   30

Other supercategories

- Perhaps supercategory to include N and Adj
  - resembles some traditional classifications
  - recalls [±N], [±V] of early generative grammar
- Hudson proposed supercategory of N, Prn, D.
- But conflict with other needed supercategories if retain assumption of unique word class for each word.
- Granularity of *Cambridge Grammar* system is contrived to be efficient in capturing generalisations about English, but cf. lumpers and splitters.

Chomsky (1970), Hudson (various, p.c.)   31

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4. Decategorialisation

N ~ Adv after low-trans. verb

- Grammaticalisation weakens evidence of category membership.

- Grammaticalised *much, more*:

  It coste me <u>moche more</u>. (c1400(c1378), *MED*)

  His bath costs <u>much</u>; his riding house costs <u>more</u>. (1647, *OED*)

- Syntactic analysis of *dear* in *cost somebody dear* is 'unclear' for H&P.

Huddleston & Pullum (2002: 313), Denison (to appear)   33

New minor category

- Modal verbs
  - either most idiosyncratic of verbs
  - or no longer verbs at all
- Have (nearly) lost characteristic features of English verbs, such as inflectional marking of person and tense, and predication.

5. An alternative view

How conventional categories fail

- Stepwise change, underspecification, decategorialisation.
- Over-rigidity:

  With admirable clarity of purpose, the *Cambridge Grammar* always tries to figure out the best analysis when there is a choice. [...]**By rejecting the less good analysis**, but one which nevertheless was persuasive enough to require detailed rejection, **it doesn't allow for the part played in a speaker's grammar by the analogies of that second analysis**.

  [H]istorically, by rejecting reanalysis until all evidence of the older state has disappeared entirely, [the *Cambridge Grammar*] has **no explanation for gradually changing distributions and dispositions over time**. [...]

Denison (2013: 181)   36

Avoid problem?

- In Radical Construction Grammar, word classes are epiphenomena rather than building-blocks of sentences.
- Attractive, but descriptions usually involve word classes and historical accounts can be *post hoc*.

Croft (2001), Traugott & Trousdale (2013), Vartiainen (2016)   37

Why conventional categories work

a. The child is heavy.

b. The child is alive.

- Even not-very-good category member behaves syntactically just like fully typical member in that context.
- Possible also that vague or intermediate examples are inherently unstable diachronically.
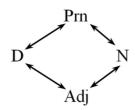- Would tie in with idea of category strengthening – though most relevant to new categories like D and M.

Rosch (various), Warner (1990)   38

Mischievous analogy: *dialect*

- Linguists don't reify 'the' dialect of area X.
- *Yorkshire dialect* is a non-linguistic, lay-persons' label influenced by cultural knowledge.
  - definition and boundaries highly problematic
  - individual usage far more complex than "±Yorkshire"
- But useful generalisation even for linguists.
  - covers features common to most Yorkshire speech
  - broadly distinguishes one cluster of regionally-based idiolects from most other Englishes
- 'The' category of a word is just a cluster of similarities.
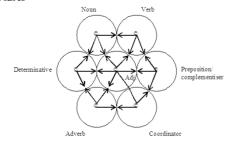
Topology of category space

- Denison

Ross (1972), Anderson (1997), Denison (2006: 286)   41

Category space

- Aarts

Aarts (2007: 240)   42

Category space

- Redraw Aarts's diagram as 3D (or multi-dimensional) modelling of category space – domes of different sizes, no dead space
  - [?]no outside: cf. *go* + quotation/noise
- Low perimeters represent
  - distance from prototype
  - (in some cases) low probability of occurrence
- No need for absolute demarcation between classes
- Possibility of different kinds of deviation from core

Hudson (1985)   43

Provisional end-point

- Continue to work with form-based word classes as practical abstraction, but recognise
  - fuzzy edges
  - semantics not irrelevant
  - syntagmatic context sometimes more important than paradigmatic replaceability.
- Messing up a neat analytical system?
- Yes! But individual speakers, let alone whole speech communities, cannot have maximally economical and entirely self-consistent grammars.

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THANK YOU

http://tinyurl.com/DD-download

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