

Lexical Semantics - Reading Notes. POLYSEMY. (winter 19/20).

[1] Cuse, D.A. 1995. Polysemy and related phenomena from a cognitive linguistic viewpoint. In P. Saint-Dezier & E. Viegas (eds), Computational Lexical Semantics, 33-49. Cambridge: Cambridge University Press.

problem: contextual variation in perceived meaning
2 explanations: ambiguity located in lex. sem.
OR in pragmatics

prag:

- (1) The teacher spoke his beard
→ male teacher.
(2) The teacher is on maternity leave.
→ female teacher.

indispecificatⁿ,
prag/context
resolver.

other kinds of contextual modulation:

meronymy (part / whole).

- (3)/(4) wash the car [outside] / lubricate the car [engine].

examples:

- (8) An ostrich cannot fly like a bird.

compare to genuine polysemy (lex. sem. ambiguity):

- (11) We moored a boat to the bank

- (12) I need to go to the bank to cash a cheque.

{ 2 lex. entries
(2 lexemes).

within semantic variation, 2 notions:

- distinct lex. entries OR - distinct facets of mug.

- degree of distinctness of readings. polysemy.
- separate entries: polylexy (Q: diff. from homophony?)
- (11)-(12) - polysemous and polylexic.

(13)-(14) polysemic, not polylexic.

(13) M. ordered an envelope.

(14) The envelope left without paying.

} Nünning 1979:
pragmatic.

Cause: but its
systematic.

context governs selection
from ~~predet~~ predefined
range of alternatives.

one route of study/analysis:

- polylexy: minimize lexical entries, max.
role of pragm. or contextual selection.

Cause: focus on polysemy (fine polysemy).

types + degree of distinctness of mg. variants.

work which describes/predicts recurrent patterns:
Apostol (1972), Leech (1990), Pustejovsky (1991).

[polysemy in cognitive semantics: Lakoff 1987,
Taylor 1989, Cause 1990].

Antagonistic readings →

- variants as competing alternatives - one choice
excludes others.

(15) we finally reached the bank.

(~) processing constraint on accessing both
mgs at once. [except for zeugma].

compare with book - cluster of meaning, multiple can be picked out together.

(16) M is reading a book. - both object and info at once.

point polysemy \leftrightarrow monosemy is a continuum.

bank \longleftrightarrow teacher.
more distinct less distinct

full ambiguity (a) discreteness \rightarrow separable
(b) antagonism \rightarrow not mutual.

identity constraints:

(17) M likes the book, so does S.

(both text or tone, not one of each).

stronger identity constraint on

(18) M. was wearing a light coat; so was S.

\hookrightarrow pw: what is the identity in (18)? (Type, not token - but alternatives?).

\hookrightarrow weight vs. colour.

identity diagnoses / discreteness

independent truth conditions also diagnose
discreteness.

\rightarrow light coat - T or F.

"like the book" - one is less odd.

antagonism: puns.

(23) I love the banks of the Thames: Barclays, NatWest

zeugma

(25) ? John's driving license expired last Thurs.

vs. (27) This book is difficult to read and to carry around
 \checkmark (free, not punny or surprising).

discreteness characteristic but not uniquely diagnostic of truly ambiguous words.

- also - the ambiguity (i.e. underspecification).
- can't use w/out committing to 1 sense.
 - "definitional polysemy" (Geeraerts 1989).
 - ↳ need more than 1 definition.

autonymy: dog (male dog), drunk (alcohol)

↳ it is polysemy, not pure prim; because you can't generalize:

(30) I like bicycles, but I don't like dogs.

(32) ? I'm glad it's a girl - I can't stand children.

semi-discrete → weaker antagonism.

'local sense' on spectrum (Guss 1986).

mouth - horse's mouth, mouth of bottle, cave, river, etc.

discrete but not totally separate.

no zeugma (34) The cat's mouth resembled that of a bottle.

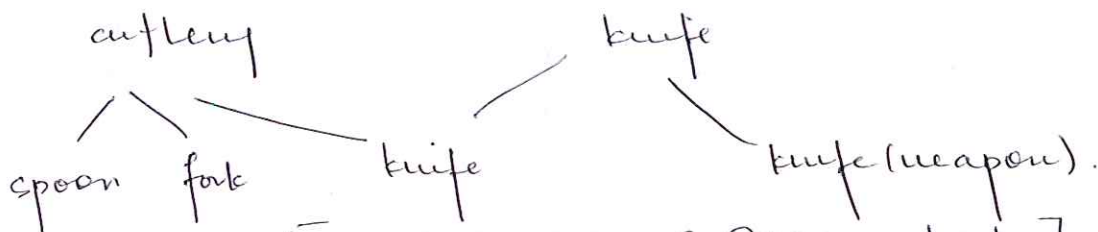
but there are points that are far apart.

(35) ? The poisoned chocolate entered the mouth of the cat as her yacht entered that of the cave.

PN: this might be a type/token or otherwise anaphoric problem, not a sense distinction one.

↳ new mouth, cave mouth (non-animal) req's context.

subsense → have superordinates.



[(as. teacher $\begin{smallmatrix} \sigma \\ \sigma \\ \sigma \\ \sigma \end{smallmatrix}$) \rightarrow neutral.]

"knife" isn't polysemous.

\hookrightarrow "get a knife" : which kind?
(purpose).

"ask your teacher": which one?

\downarrow
gender specific. (math, science, geography - also purpose).
isn't "core" property.

whereas knife purpose is.
[cf. Putz-Anderson on QUALIA].

syntactic metonymy

\hookrightarrow both cases, continuum.

- elided (removed) element
is identifiable / invariant
predictable from context

Matthews (1981) - latent.

(41) He'd better stop - J. watching.

(42) M. is reading.

(41) - definite, recoverable
object.

\hookrightarrow no spec. needed.
(cf. Turkish).

(45) J. is watching; so is M.
IDENTITY.

(46) "reading" - NO IDENTITY.

\nwarrow specific kind of treatment.
patient, cat.
 \nearrow of p. animal.

heavy | prob. of polysemy - heavy rain,
heavy smoker,
heavy sentence
prop: high value on latent scale. ("very").

→ Zeugma ✓
(52) ? J's prison sentence + the ration for the compromise
were both heavier than expected.

unlike "watch", filling in gap neatly is odd.

(53) J. received a heavy prison sentence →
(? u. f. u. o. f. t. u. e.).

→ unpredictable restrictions → lexical,
idiosyncratic.

similar: "like" (J. likes blondes/
machinallons).

Lyons 1977 — claims conjunction odd, but is it?

French "centri": "Ça sent d'ail" — smells/
tastes like garlic.

↳ probably ambig:

(59) J. peut sentir d'ail; Marie aussi.
(either both smelling or tasting).

but → centri [the scent of] and [the taste
of].

cooperative readings.

"facets"

book TOLIE, TEXT

(a) non-antagonistic

(b) autonomous.

• "the X itself" to
distinguish one.

• use for entity w/ only
one set of properties.

(c) give rise to identity constraints,
+ & of indep. sets of truth cond.

(d) multi-faceted words are
ambig, but phrases w/ them
can be.

- & some predicates pick out one sense, not the other
(e.g. "difficult book").
"thick book".

(e) each facet is indep. involved in
lexical relations: hyponymy,
hyponymy, etc.

(f) the different facets of a word form a gestalt
go together, cluster.

certain cases: novel, chop, factory

↳ one facet is more central (?).

Eng: a long book text.
Gmn: ein langer Buch

[TONE].

(vs. "roman"?).

polysemy + cognitive semantics.

point / tenet: mngs of expressions arise
via patterns of concepts in cognitive system.

↳ concepts have cores, + satellites.

↓
and prototypes /
exemplars.

idea: hyponymy, incompatibility, meronymy,
etc - primarily conceptual, then lexical.

problem: explain variable status of different mngs.

Refs 1. Апресян, J. 1972. Regular polysemy. Linguistics 124,
5-39.

2. Lemer, A. J. 1990. Polysemy, conceptual clarity, + the structure of the lexicon. *Cognitive Linguistics* 1, 207 - 246.

3. Nunkburg, G. 1979. The non-uniqueness of semantic solutions: polysemy. *Linguistics + Philology* 3, 143-184.

4. Pustejovsky, J. 1991. The generative lexicon. *Computational Linguistics* 17, 409-441.

[2] Dölling, J. T. A. Systematic polysemy. In L. Matthensson, C. Meier, H. Pullmann, + T. E. Zimmermann (eds), The Blackwell Companion to Semantics.

Apresjan (1974) $\begin{matrix} (a) \\ - \end{matrix}$ systematic or regular polysemy.
(b) irregular.
 \downarrow
idiosyncratic. \downarrow
series of items

(1) a. J. put a glass of wine on the table.
b. M drank a glass of wine.

CONTAINER / CONTAINED.

patterns ~ count / mass

(Pellegrini + Schubert 1989, Kufka 1995, Chierchia 1998, Falkum 2010, 11.).

a. ANIMAL / FOOD.

e. KIND / AMT OF MATTER.
(cheese)

b. " / FUR.

f. KIND / INDIVIDUAL (chair).
(TYPE / TOKEN):

c. TREE / WOOD

d. AMT / PORTION (LIQUID)

PN: which is COUNT / MASS varies.

g. TREE / FRUIT.

h. CONTAINER / CONTENT

i. PHYS-OBJ / INFO (TIME / TEXT).

j. EVENT / INFO (lecture).

k. INST. / PHYS-OBJ. (bank).

l. INST / PROCESS (school).

m. ORG / PLACE (country).

n. PUBLISHER / PUBLICATION.

o. EVENT / RESULT-OBJ (soufflé).

p. FOOD / PROCESS (dinner).

q. PHYS-OBJ / APERTURE (door, window).

metonymy vs. syst. polysemy.

Nunberg 79. (19) The ham sandwich ^{sitting} is at table 10.

"meaning shift" say 1981.

→ coercion, mismatch effect.

metonymy: also appl. to ^{complex} expressions

pattern: OBJ for USER.

difference: metonymy is non literal

("ham sandwich" as USER isn't a lexical entry / part of one).

→ can have metonymic uses of things that are polysemous.

(24) The student was reading Plato.

(metonymic b/c not all subsets of work by Plato is part of reading.).

variation w/in systematic polysemy.

book, lecture, window
neither mug
"pie" (more basic).

rabbit, oak, beer.

evening is dried.

originally metonymic.

→ lexicalized or conventionalized

(PN: metonymy is potentially productive).

lexicalization ~ metonymically motivated polysemy.

System. polysemy + co-predication.

co-predication: one use, both mugs.

→ if results in zeugma (clued or marked),
then word is ambiguous (Chafe 86).

(26)? J. fed and ate the chicken.

Copestake + Briscoe 1995 - ANIMAL/FOOD
genuine ambiguity.

Dölling: "alternating meaning".

compare: (27) I picked up + marked the book.
TIME TEXT.

(Acker + Pustejovsky 2006).

"non-alternating meaning".

sometimes not clear:

(34)? we took the door off its hinges and walked
through. [zeugma].

(35) The door was smashed so many times
it had to be bricked up.

all common nouns have type/token alternation.

Asher (2011): not alternating.

(37) Ducks lay eggs + are common to most of Europe.

[But: bare plural could be compound].

Q: is type or token basic?

KIND, book. also: as work or type.
edition. sub-type.
copy or token.

Atkins + Chavez (03): TYPE/TOKEN co-pred is not ok.

(40) ?? This book revolutionized the world +
is full of coffee stains.

(but, point at a p. copy?).

newspaper examples.

- phys. object; w/ information. (co-pred ok).
- periodical or single issue (co-pred odd).
- publisher or product (x co-pred).

(45) ? The newspaper is yellow + fired its editor.

↳ might just be pragmatically bad.

compare:

(46) The paper has been attacked by
the opposition + publicly burned.
PUBLISHER, PRODUCT

idea: publication might not be copy, but concept.

(~~44~~ → (50) ^{The} Paper is yellow + published
once a week.
(both kinds).

[co-ordinated relative clauses is more flexible].

Approaches to syst. polysemy

1. Meaning enumeration (like dictionary).

Pustjorsky 95, Acker 11: misses connections.

network appch (a concept map - Lakoff 87).

2. Primary meaning strategy. only 1 mg lex. represented.

Nunberg 1979: 1 convention, others via pragm. transformations.

(PN: so, system. connections are part of lexicon / lang. knowledge).

↳ sometimes difficult to argue for synchronically

↳ lexical rule approach [Copestake + Briscoe]

↳ semi-productive.

system. sense extension.

(universal grinder, universal packager are such rules).

[might also feat as underspecified → e.g., like "teacher" wrt grinder].

3. Underspecified meaning approaches.

single mg - not one of the senses ~~has~~
(superordinate) Bierwisch 1983.

2 levels - sem. form

conceptual structure.

entry: "meaning cloud" / "family of concepts"

(school) =
(SS) $\lambda x. \text{PURPOSE}(x, W)$ / $W = \text{TEACHING-AND-LEARNING}$.

conceptual shift (56) a. $\lambda P \lambda x. \text{INST}(x) \wedge P(x)$
 b. " BUILDING(x) "
 c. " PROCESS(x) "
 d. " KIND-OF-INST(x) "

$\exists x. \text{INST}(x) \wedge \text{PURPOSE}(x, u).$

problems: details of mapping b/w. levels?

Q. how do we find "core"?

Dölling (1997). parameter-fixing approach.

no core, sthg. ^{the} schematic

↳ slot for systematic variation + for polysemy.

issue: tightness of connection can vary.

4. Structured meaning approaches.

single entry, structured for co-pred.

facet approach - Cune 1986.

Pustejovsky 91 - generative lexicon theory.

"dot objects" - complex types, more than one pos, etc.

(related to type-shifting and coercion).

"book" PHYS. OBJ • INFO

combination, selectional restrictions pick one out.

(PN: like vector projection).

- doesn't explain co-predication
 (ellipsis still has identity constraints).

Ashu + Pustejovsky 06, Asher 11.

differentiated type presupps.

Conclusions

- 2 kinds of syst. polysemy.
- open question about representation.
- experimentation (?) [PN: see journal].

See Dölling for references.